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# MONITORING AND EVALUATING CITIZEN AND AGENCY INTERACTIONS:

## A FRAMEWORK DEVELOPED FOR ADAPTIVE MANAGEMENT

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## A Framework Developed for Adaptive Management

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# I. INTRODUCTION

Since 1994, when the Northwest Forest Plan established Adaptive Management Areas (AMAs), resource agency professionals have been working to make the AMA concept a reality. Public involvement is an essential component of AMAs, as it is with most other federal land management settings. Some AMA personnel have been seeking effective processes for land management agencies and citizens to interact and have learned from their efforts. In other cases, change has been embraced more slowly or is difficult to see.

This report provides several levels of information and analysis. First, it outlines the adaptive management concept and summarizes the public involvement actions taken thus far on each Adaptive Management Area. This provides a description of current conditions and establishes a context for monitoring and evaluating citizen/agency interactions. Second, it utilizes findings from public involvement research, as well as insights from progress on the AMAs, to describe goals for and characteristics of successful agency/citizen interactions. This discussion is intended to identify important criteria for assessing effectiveness in the public arena. Third, the final section of this report introduces a framework for monitoring and evaluating agency/citizen interactions. Although initially developed for use on AMAs, the framework is intended to address similar experiences where assessments of citizen/agency interactions are needed. For example, it can be used to evaluate a public process undertaken for a single project or it can be integrated with large-scale models such as the "Guide for Developing the Monitoring and Evaluation of a Forest Plan" currently being refined by Forest Service line officers, planners, and researchers (USDA Forest Service, 1997a). The initial monitoring and evaluation framework proposed here is to be viewed as part of the AMA experiment, and can be adjusted for broader monitoring and evaluation purposes, or as we learn more about these important interactions.

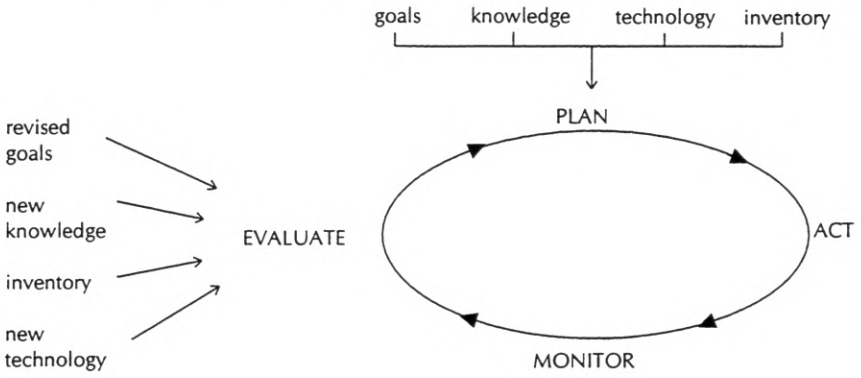
## A. MONITORING AND EVALUATION

Monitoring and evaluation are critical aspects of adaptive management. Monitoring has been defined as: "The process of collecting information to evaluate if objective and anticipated or assumed results of a management plan are being realized or if implementation is proceeding as planned" (USDA Forest Service et al., 1993:IX-21). Alternatively, monitoring has been considered "the tool for obtaining...data," while evaluation has been defined as "the tool for translating [data] into useful information" (USDA Forest Service, 1996b). Both definitions seem to fit well within the construct of evaluation research, which has been described as a process of determining whether the intended result of an action was produced. Evaluation research requires knowledge of the intended result (goal or objective), criteria for success or failure, and an ability to measure, or operationalize, the result and the context of the situation (Babbie, 1995). In short, monitoring and evaluation activities are tools that help determine if adaptive management programs are effective.

## B. "SUCCESS" IN THE ADAPTIVE MANAGEMENT CONTEXT

Adaptive Management Areas are places where the principles of adaptive management are to be applied. "*Adaptive management* is an approach to natural resource policy that embodies a simple imperative: policies are experiments; *learn from them*" (Lee, 1993:9). Adaptive management involves planning, acting, monitoring, and evaluating—an iterative process where one tries to learn from experiences and adjusts actions accordingly (see Figure 1)[1].

*Figure 1: The Adaptive Management Process*




Source: USDA Forest Service and USDI Bureau of Land Management, 1994:E-14.

Adaptive management is about experimentation and about learning. "Failures" do not exist in the traditional sense (Lee, 1993). Adaptive management embraces the idea that we operate in an inherently uncertain world, so an adaptive management system is alert to and facilitates learning from surprises, as "surprises are legitimate, rather than signs of failure, in an experimental framework" (Lee, 1993:65). For any given project, it may be a "mistake" or a "failure" that contributes most to overall success in terms of how much we learn. Unfortunately, in an early assessment of AMA implementation, Schmucker (1996) noted that the institutional culture of the federal land management agencies (Forest Service, Bureau of Land Management) still stresses "success" rather than learning. She argued that "Management evaluation and reporting should treat any activities which lead to new knowledge and fulfill related adaptive management goals as successes" (4).

In the adaptive management context, success can mean different things to different people (e.g., agency personnel, citizens, researchers) and can be defined in different ways for a given situation. In the case of citizen/agency interactions, success is sometimes found in tangible outcomes. But, often it is found in less tangible improvements, such as in the way things are done (process) or in building relationships (Wondolleck and Yaffee, 1994). In this paper, we

[1] For a description of how adaptive management has been defined for the Northwest Forest Plan, see USDA Forest Service and USDI Bureau of Land Management, 1994, pages E12-E15.

give credence to different perspectives and the many ways that success can be manifested. Achieving any part of the goals or characteristics described herein could constitute progress or a step towards success.

Thus, it is important that evaluators consider how a particular action contributed towards the larger goals of citizen/agency interactions and adaptive management, rather than simply focusing on labeling any single action a "success" or a "failure." Effective monitoring and evaluation require those involved at all levels (e.g., agency line officers and supervisors, citizens) to accept the legitimacy of experimentation, uncertainty, and surprises. It also requires careful documentation of context and assumptions so that when surprises do arise or "mistakes" are made, people are able to learn from them. This document brings together a diverse set of ideas about successful interactions, highlights factors that might prove to be barriers to success, and provides ideas about how contextual information can improve the usefulness and quality of evaluations and interactions.

## C. REPORT CONTENT AND ORGANIZATION

In an effort to build a monitoring and evaluation framework, this report addresses several questions related to Adaptive Management Areas and citizen/agency interactions. It uses a combination of written evidence from the AMAs themselves—the plans, quarterly reports, and other materials produced by the AMAs that reflect their efforts and learning thus far—along with evidence and ideas from public involvement, adaptive management, and related research. Specifically, the questions addressed in this report are:

- What are managers on the AMAs planning and trying in an effort to integrate agency and public efforts? What's working? Not working?
- What are the goals for citizen agency interactions? How do citizens and agencies define and measure success for these interactions?
- What are the factors that facilitate or impede these interactions?
- How do we monitor and evaluate success over time?

This report is organized around these questions. Chapter II provides background discussion of Adaptive Management Areas and sets the context for this research. Chapter III focuses on activity on the AMAs specific to citizen/agency interactions, including learning thus far and future plans. Chapter IV broadens the discussion by using findings from public involvement research to identify the goals and characteristics of "successful" interactions, as well as the factors that might facilitate or impede successful interactions. Finally, Chapter IV integrates this collective body of knowledge into a framework for monitoring and evaluating citizen/agency interactions.

# II. BACKGROUND

## A. ADAPTIVE MANAGEMENT AREAS AND THE NORTHWEST FOREST PLAN

In an attempt to end gridlock over management of the federal forests in the Pacific Northwest, President Clinton convened a forest conference in Portland, Oregon in the spring of 1993. The Forest Ecosystem Assessment Team (FEMAT) was asked to utilize an ecosystem approach to forest management to "identify management alternatives that attain the greatest economic and social contribution from the forests of the region and meet the requirements of the applicable laws and regulations" (USDA Forest Service et al., 1993:ii).

One of the alternatives the team identified, Option 9, incorporated the concept of Adaptive Management Areas. Option 9 eventually was adopted through the "Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl" (ROD) (USDA Forest Service and USDI Bureau of Land Management, 1994). Ten AMAs were established on federal lands and were "designed to develop and test new management approaches to integrate and achieve ecological, economic and other social and community objectives" (USDA Forest Service and USDI Bureau of Land Management, 1994:6).

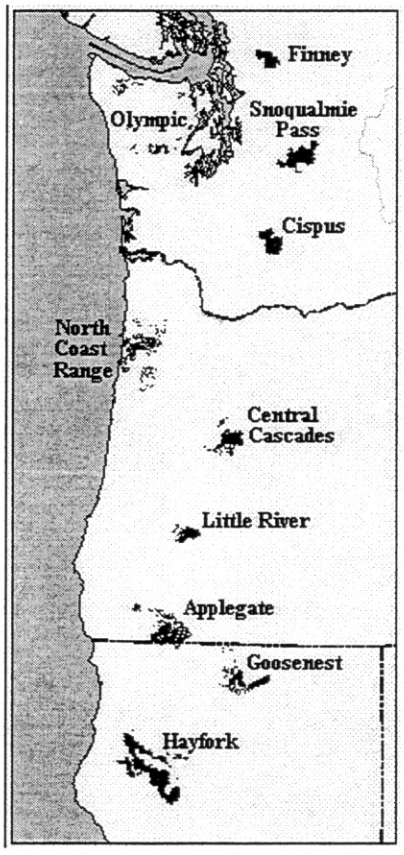
> *The areas provide a diversity of biological challenges, intermixed land ownerships, natural resource objectives, and social objectives...The overall objective for Adaptive Management Areas is to learn how to manage on an ecosystem basis in terms of both technical and social challenges, and in a manner consistent with applicable laws. It is hoped that localized, idiosyncratic approaches that may achieve conservation objectives of these Standards and Guidelines can be pursued. These approaches rely on the experience and ingenuity of resource managers and communities rather than traditionally derived and tightly prescriptive approaches that are generally applied in management of forests. (USDA Forest Service and USDI Bureau of Land Management, 1994:D-1)*

Much of the emphasis for the adaptive management areas is on *learning*, *innovation* and *flexibility*, whether it be related to approaches to land management, funding, interagency coordination, training and employing local people for AMA activities, management of watersheds across ownership boundaries, or citizen involvement. The AMAs are supposed to "provide a geographic focus for innovation and experimentation with the intent that such experience will be widely shared" (USDA Forest Service and USDI Bureau of Land Management, 1994:D-2). Agencies are called on to "facilitate collaborative efforts, partnerships, mutual learning and innovation" (USDA Forest Service and USDI Bureau of Land Management, 1994:D-5), while local communities are called on to help "find innovative ways to set objectives, develop plans, implement projects, and monitor accomplishments" (USDA Forest Service and USDI Bureau of Land Management, 1994:D5).

> *These AMAs offer the opportunity for creative, voluntary participation in forest management activities by willing participants. We recognize that this will take time, effort, and a good-faith commitment to the goal of improved forest management. Many of the potentially participating communities and agencies have different capabilities joining this effort. Our approach to implementing this initiative will recognize and reflect these differences as we seek to encourage and support the broadest possible participation. (USDA Forest Service and USDI Bureau of Land Management, 1994:28)*

The ROD also asserts that the AMAs were "located adjacent to one or more communities with economies and a culture long associated with utilization of forest resources. As a result, the people have a 'sense of place' and desire for involvement" (D-9). Figure 2 displays the names and locations of the AMAs. The USDA Forest Service and the USDI Bureau of Land Management are the agencies primarily responsible for on-the-ground management of the AMAs.

*Figure 2: Adaptive Management Areas*




Source: AMA Network Home Page: http://www.teleport.com/~amanet/amaloc.htm

## B. LEARNING AND INNOVATION

The terms learning and innovation have been used repeatedly in reference to the adaptive management. It is useful to briefly discuss the meaning of these terms. *Learning* is defined by Webster's (1966) as "the acquiring of knowledge or skill" (833). The ROD emphasizes that knowledge and experiences should also be *shared* with others. To *innovate* is "to alter, to make new, to introduce new methods, devices, etc.; make changes; bring in innovations" (753). This definition seems to include not only the invention of new ideas, but also the application of ideas to situations where they have not been previously tried, and the modification of existing methods. In addition, *creativity* seems to be implied by the use of the term innovation in the ROD. So, citizens and AMA personnel are being called on to be creative, to take risks, to try new things—to experiment—and to acquire new knowledge and share what they have learned with others.

## C. CITIZEN/AGENCY INTERACTIONS

The focus of this report is on citizen/agency interactions on AMAs. In the past, attention has often been on the relatively formal "public involvement" or "public participation" processes. We are interested in the myriad of interactions that take place between citizens and agencies, including volunteer projects and less formal daily interactions. Why is this general area a concern for public land management agencies, especially in the Pacific Northwest? Two items from the literature—the FEMAT assessment and Bolle's (1971) description of the "environmental crisis"—provide insightful perspectives regarding the importance and challenges of citizen/agency interactions.

In 1971, Arnold Bolle discussed what he termed an "environmental crisis" that "has established the need for a new set of relationships between the public and governmental agencies at all levels. It is possible that a new set of values can be impressed into the governmental process through greater participation in decision-making at the field level" (497). Litigation was being increasingly sought as a means of access to the decision making process, resulting from a "breakdown in the normal democratic process through which the public need is translated into law by the legislature, and in turn carried out by administrative agencies" (497).

> *Citizen involvement in government should be welcomed by the natural resource administrators as evidence of the growing importance of these programs in the American public. Unfortunately, the reaction of administrators far too often is resentment. The many and growing instances of conflict between natural resource agencies and their public are basically breakdowns in relationships because of administrators' lack of genuine understanding of the participation process. (Bolle, 1971:497-498)*

Bolle was ardent in what he saw as an essential role of the public in the decision making process, providing insight into problem identification and goal setting:

> *We have had foresters recoil at even the thought..."We would be abrogating our professional responsibility if we didn't work out the problem and present the public with the best solution," they say. What arrogant and irrelevant nonsense! To so do they would have to first identify the problem, which involves setting the goals! Foresters are no more competent to set goals for society than any other group of citizenry or citizen. (501)*

More recently, the social assessment group that was part of FEMAT addressed the subject of public involvement, providing a summary of the current state of public involvement efforts as well as related propositions and recommendations. In part, they stated that: "Although an array of legislative requirements exist for public involvement in research management and planning, well-established programs and policies that integrate public input into decision making remain elusive" (USDA Forest Service et al., 1993:VII-98).

In reviewing recent literature related to interactions between citizens and land management agencies, the social assessment group found there was widespread cynicism regarding the motivations of agencies in public involvement efforts (e.g., beliefs that personnel used public involvement to simply sugarcoat decisions that had already been made), and that attempts at public involvement often just exacerbated the problems between citizens and the agencies. In evidence of these views, it was noted that the goals underlying public involvement programs were often not being met. These goals included informing people, soliciting their ideas, integrating their concerns into decisions, and being responsive to those who own public lands.

The social assessment group stressed the inclusion of people in ecosystem management recognizing that "For the success of any new approach to forest management an open process is required that fairly considers all points of view and fosters mutual learning..." (USDA Forest Service et al., 1993:VII-114). Lastly, they asserted that "Responsive administrative decision making structures are required, with a central element of participative management" (USDA Forest Service et al., 1993:VII-117). The features of participative management were described as: "Tapping into the rich body of knowledge held by the citizenry, working in collaboration with citizens to formulate alternative conceptions of the future, helping people understand the consequences of alternatives, and enhancing our awareness of the distribution of costs and benefits associated with alternative management..." (USDA Forest Service et al., 1993:VII-117).

In summary, the AMAs are part of a larger adaptive management "experiment." They were established with the hopes of providing a geographic focus for innovative approaches to ecosystem management and of addressing many of the concerns expressed by FEMAT, such as those regarding public involvement. Achieving "success" in citizen/agency interactions is a large part of the AMA challenge.

# III. ADAPTIVE MANAGEMENT AREAS: ACTIVITIES, PLANS, AND GOALS

## A. INTRODUCTION

This chapter focuses exclusively on recent actions on the ten Adaptive Management Areas in order to:

- Briefly describe what has occurred during the first three years of the adaptive management experience, as well as what is planned for each AMA; and
- Provide insight into how agencies[2] define success for citizen/agency interactions, insight which can then be used in developing a monitoring and evaluation framework.

Using plans and related documents from individual AMAs, as well as the Record of Decision, this chapter explores the activities that have been undertaken or planned, AMA goals related to citizen/agency interactions, and suggestions for measuring success. Also, using quarterly reports and other AMA publications, this chapter notes the observations of agency personnel regarding "what's working" and "what's not working" so far.

## B. GUIDANCE PROVIDED BY THE RECORD OF DECISION

The Record of Decision (USDA Forest Service and USDI Bureau of Land Management, 1997) provides the following broad goals for AMAs:

> *...develop and test new management approaches to integrate and achieve ecological, economic, and other social and community objectives. (6)*
>
> *...improved forest management. (28)*
>
> *...learn how to manage on an ecosystem basis in terms of both technical and social challenges, and in a manner consistent with applicable laws. (D-1)*

It also identifies three types of monitoring activities: *implementation monitoring* (determines if standards and guidelines are being followed); *effectiveness monitoring* (determines if desired results are being achieved); and *validation monitoring* (assesses if underlying assumptions are sound). Further, the ROD identifies several key items that should be part of implementation monitoring for public participation:

- *Involvement of multiple agencies, the public, and others in planning, implementing, and monitoring watershed analysis;*

[2] Some of the AMA documents from which this information was derived were the result of collaborative citizen/agency efforts. However, many of them, such as quarterly reports, were written by agency personnel. In some instances, AMA documents have specifically identified citizens' ideas. When possible, we have identified citizens' ideas as such.

- *Opportunities to share information (applicable to all parties such as agencies, publics, communities);*
- *Identification of clear expectations and responsibilities; and*
- *Active partnerships. (E-6)*

Although these questions provide some good initial direction, the ROD does not provide guidance on the types of questions that might be relevant for effectiveness and validation monitoring related to citizen participation.

## C. INFORMATION FROM INDIVIDUAL AMAS

Each AMA was required by the ROD to develop a plan using the guidelines displayed in Figure 3. Thus far, seven of the AMAs have drafted a plan (Snoqualmie Pass, Cispus, Northern Coast Range, Central Cascades, Little River, Applegate, Hayfork). Because the documents were not intended to provide specific land management decisions, and possibly to avoid some of the stigma associated with traditional agency plans and planning processes, some of these AMAs have chosen to term their document a "guide."

*Figure 3: ROD Guidelines for AMA Plans*

*The plan should address or provide:*

- *A shared vision of the Adaptive Management Area (e.g., the kind of knowledge participants hope to gain). Identification of the desired future conditions may be developed in collaboration with communities, depending on the area.*
- *Learning that includes social and political knowledge, not just biological and physical information.*
- *A strategy to implementation, restoration, monitoring and experimental activities.*
- *A short-term (3 to 5 year) timber sale plan and long-term yield projections.*
- *Education of participants.*
- *A list of communities influenced by the Adaptive Management Area projects and outputs.*
- *An inventory of community strategies, and resources and partners being used.*
- *Coordination with overall activities within the province.*
- *A funding strategy.*
- *Integration of the community strategies and technical objectives. (USDA Forest Service and USDI Bureau of Land Management, 1994:D-7)*

The Adaptive Management Areas have also produced quarterly reports, in which staff have reported "what worked well," "what we learned," and related topics. Some of these observations have been about citizen/agency interactions that occurred during the three years that AMAs have been in place.

AMA plans and supporting documents are important sources of information. In addition to describing much of the *activity that has already taken place*, they provide details regarding *what may take place in the future*, reveal *goals for citizen/agency interactions*, and suggest *success criteria*

for AMA programs. What follows are brief descriptions of the progress of each AMA with regard to its citizen/agency interactions, using information from plans or guides, quarterly reports, and related documents.

## *1. Snoqualmie Pass AMA*

Under the terms of the ROD (USDA Forest Service and USDI Bureau of Land Management, 1994), the Snoqualmie Pass AMA was directed to complete detailed forest planning before implementing any major activities[3]. The Snoqualmie has completed a Draft Environmental Impact Statement (DEIS) (USDA Forest Service and USDI Fish & Wildlife Service, 1995), and a Final Environmental Impact Statement (FEIS). Appendix B of the Snoqualmie Pass AMA DEIS describes public involvement efforts used in the development of the document, including:

- an information sharing session;
- a scientists' forum;
- inviting other public agencies into the process;
- public notifications and announcements;
- a key contacts mailing list;
- a field trip;
- public meetings; and
- presentations to interest groups.

The DEIS provides insight into how the agency approached the requirements for an AMA plan as outlined in the ROD (see above). For example, it states that the shared vision for the AMA was developed in part with the help of "a series of public meetings and informal contacts" (A-2). Also, in response to the need for the plan to reflect learning that includes social and political knowledge, the DEIS includes the following:

> *The public comments during this planning process for the AMA have been incorporated into this document. For example, social concerns about recreational opportunities led to development of Alternative 7 and its incorporation into the DEIS. Public review and comments on this document will help incorporate social and political knowledge into the adaptive management area plan. (A-2)*

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[3] The Snoqualmie Pass area has been recognized as ecologically critical: "The Snoqualmie Pass/I-90 Corridor had long been recognized as an area likely critical to maintaining connectivity of spotted owl populations between the northern Cascades and southern Cascades of Washington. After internal FEMAT discussions it was agreed that the Snoqualmie Pass area would be proposed as an AMA under Option 9, but as a compromise, an AMA plan would be developed that was to recognize the area as a likely critical connective link in north-south movement of organisms closely associated with late-successional forests (including northern spotted owls) in the Cascade Range" (USDA Forest Service and USDI Fish and Wildlife Service, 1997:Appendix C-3). Up front detailed planning was required to ensure that the best course of action is taken on the AMA.

The Snoqualmie Pass AMA had a specific public involvement plan for its EIS process ("Snoqualmie Pass Adaptive Management Area Public Involvement Plan," 1995), which included a number of objectives:

- *Form a basis for on-going relationships with affected publics for AMA management into the future.*
- *Find a balanced way of managing the ecosystem on a sustainable basis, involving the local community, public, scientists, and land managers.*
- *Consult with interested publics to find good ideas for managing the AMA, and for how they think on-going public involvement could be carried out.*
- *Inform the public about the intent of the plan.*
- *Identify public values and expectations of the AMA management.*
- *Contribute to public understanding the importance of integrating science into management decisions.*
- *Identify public uses of the area.*
- *Define opportunities for contributing to community economic stability.*
- *Be creative in approaches to public involvement.*

In addition, the Yakima Provincial Advisory Committee[4] is forming a subcommittee focused on the Snoqualmie Pass AMA. The subcommittee will help to develop innovative approaches on the AMA (Floyd Rogalski, personal communication).

Citizens interested in the Snoqualmie Pass AMA have a number of concerns, as noted in the April 1996 quarterly report. Citizens were "uncomfortable with the idea of adaptive management" as expressed in the DEIS. Staff reported that citizens "wanted to know what we would be doing in the future and, if they didn't see it described in exact terms in the document, they didn't feel we had declared intentions...Most seemed uncomfortable with the idea that we would apply a range of habitat modifying techniques, which we would use in a 'learn as we go' approach that would change over time." In the same report, staff expressed concern about meeting public expectations with reduced funding and personnel: "A large number of people care what happens in the Snoqualmie Pass AMA and demand high quality information to help them decide what is best. Providing this information during a period of reduced budgets and staff is a challenge" (4/96 Quarterly Report).

## 2. *Cispus AMA*

The Cispus AMA has completed a draft guide (USDA Forest Service, 1997b) that reflects substantial interactions with citizens. The introductory chapter of the guide states that "Over

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[4] As part of the Northwest Forest Plan (NWFP), the affected region was divided into 12 provinces based on water and land characteristics. Implementation of the NWFP is overseen in each province by a Provincial Interagency Executive Committee, which is made up of federal agency representatives. Each PIEC is advised by a Provincial Advisory Committee (PAC), which is made up of community, business, environmental groups, Native American tribes, and federal, state, and county representatives ("The President's Forest Plan," ND).

more than two years of intensive efforts in collaborative work and research, a shared vision for the Cispus AMA has been taking shape. It is 'shared' because many individuals and organizations holding a common concern for the fate of these lands have worked together to develop it" (1-4).

The guide describes the major activities undertaken on the Cispus. One major effort was the Upper and Middle Cispus River Pilot Watershed Analysis (WA). Citizens were incorporated in the WA process through building an "anecdotal assessment," which involved describing past conditions and uses in the watershed, and through an open house where information was shared.

Another major effort was a collaborative learning process[5]; where personnel worked "closely with members of the public to identify issues of concern and share information and ideas in an environment characterized by mutual respect and commitment to a common cause" (4-3). By implementing the collaborative learning process, personnel learned about "the strength of interest and shared concern among the many different communities" (4-6). They also learned about the process itself, an innovative approach to citizen/agency interactions on the Cispus AMA.

The third major effort on the Cispus AMA has been the landscape analysis and design (LAD), which is intended to help create a graphic, long-term, shared vision of the AMA landscape, integrating knowledge from the watershed analysis with AMA strategies (see below) and with concerns identified during the collaborative learning process. In addition, the LAD process has entailed public workshops and public comment periods where participants reviewed data, expressed concerns, and provided insights, and has included participation from the Southwest Washington Provincial Advisory Committee (USDA Forest Service, 1997b; USDA Forest Service, 1997c).

The role of coordinating with others on the Cispus AMA is prominent in the guide. In a section on "How adaptive management on the Cispus is taking shape," the guide notes that the "work of developing relationships has assumed a role of primary importance on the Cispus, and has defined the Cispus AMA's strategies in working with communities of place and interest" (USDA Forest Service, 1997b:2-5). Coordination activities were described in terms of:

- working with communities (e.g., White Pass Community Assessment);
- coordinating with the Southwest Washington Province;
- attending Model Forest Network meetings and corresponding with other Model Forests;

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[5] Collaborative learning is a framework designed to "address the complexity and controversy inherent in public land management...It emphasizes activities that encourage systems thinking, joint learning, open communication, and focuses on appropriate change" (Daniels and Walker, 1996:71, 81). See Daniels and Walker, 1996 for a complete explanation.

- exchanging quarterly reports and newsletters with other AMA's and the public;
- attending AMA coordinator meetings; and
- working on ways to maintain information about research projects that can be shared.

Many of the ideas in the Cispus AMA guide are rooted in a separate document titled "AMA Strategies" (Rose, 1995). These strategies were developed using a collaborative learning approach as well as more traditional forms of public involvement (e.g., meetings, letters, notices), and have been incorporated into the AMA guide. Thirteen strategies are identified in the document. Important examples include: (1) Natural resource management education; (2) Public/industry involvement in research, inventories, and monitoring; (3) Collaborative public involvement; (4) Community service work opportunities; and (5) Cispus AMA Day. The document provides a detailed description of each strategy, as well as their purposes, potential locations for application, likely parties to be involved, funding, and timing. For example, the purposes for "Public/Industry Involvement in Research, Inventories, and Monitoring" are:

> *...to increase knowledge of the resources and social and economic conditions associated with the AMA, to increase communication between the public and the Forest Service, and to improve public participation in the management of the AMA. Additional opportunities for learning include:*
>
> - *public participation in projects and research activities;*
> - *comparing different forms of public involvement to decide what works best;*
> - *increased community knowledge base for resource issues and their relationship between people and resource uses, making it easier and more effective for the public to understand and participate:*
>   - *how to solicit and organize volunteer groups;*
>   - *making research and learning available and accessible to industry and the public;*
>   - *how to use data and information from inventories and monitoring to improve management;*
>   - *what levels of public use occur in the AMA, by whom, and for what purpose...(10)*

In another example, the strategy of "Collaborative Public Involvement" is to be incorporated into various AMA projects and is aimed at improving public participation, attempting different forms of involvement, and reducing conflict over activities on the AMA. The intent for a proposed "Cispus AMA Day" (when volunteer activities, open houses, and tours would take place) is to "generate or maintain interest in the AMA and to incorporate the public in forest management and projects to promote learning" (Rose, 1995:14).

The Cispus AMA guide also provides a discussion of research and monitoring on the AMA. Several topics are described, including learning and community interaction. The guide emphasizes that "learning was obviously a primary concern" for each of the topics, and notes

that "Learning was also broken out as its own research and monitoring topic in order to make sure that it did not get lost among the others" (USDA Forest Service, 1997:4-9).

The stated goal for the research and monitoring topic "Community Interaction" is to "Involve local communities as full participants in ecosystem management" (USDA Forest Service, 1997:E-3). Potential indicators of interaction include: examples of modification to the planning process to incorporate local communities, examples where community involvement impacted management decisions, and the nature, number, and attendance of public meetings. To facilitate "community interaction" research, relevant questions are incorporated into the guide. For example, in describing land management on the AMA, the guide discusses learning themes for each forest type. Under one of the forest types, the learning theme of "community interaction" appears as follows:

> *One assumption that could be tested in Natural Mosaic is that community involvement in forest management will improve relationships between the Forest Service and the community. The variety of management practices available to be used in these areas also offers a particularly good opportunity to learn about how the Forest Service and community can work together in the planning process–what techniques seem to work, and why?*
>
> *Do management decisions reflect what is learned through community involvement?*
>
> *Has the way the public is involved in forest management changed over time?*
>
> *Has the agency adapted to accept and use monitoring data from the public? (5-7, 8)*

In another instance, the learning theme of community interaction appears again:

> *With its strong emphasis on forest management, including timber production, Managed Mosaic offers ongoing opportunities for learning how to work with the public to plan projects such as timber sales and recreation proposals. Learning could focus on how to promote acceptance or tolerance between groups with different interests and uses of the forest resources. Another assumption which could be tested here is that learning more about local communities will enable forest management to be more sensitive to social interests and values. What methods work for increasing the effectiveness of public participation in forest management?*
>
> *To address these learning areas, projects and activities in Managed Mosaic would consider:*
>
> - *What management activities are consistent with the general publics' ecologic, aesthetic, economic, recreational and other values?*
> - *Has community involvement led to increased political support of the AMA?*
> - *Have community values and needs been accurately addressed? Are they reflected in management decisions? (5-10)*

Cispus AMA personnel reported learning several things during their collaborative work with the public to develop the documents discussed above. For example, they learned that it would be useful to encourage people with different viewpoints to sit together at meetings and workshops: "Although mixing and informal conversations did occur over the course of the meetings, we could have accelerated the process" (7/95 Quarterly Report). They learned that

personnel should resist playing the role of "expert" when dealing with the public (4/96 Quarterly Report). Also, citizens provided ideas about how to communicate with publics interested in the AMA, advising staff to place a high priority on the Cispus AMA newsletter and suggesting that staff could reach more people through newspaper articles (7/95 Quarterly Report).

### 3. *Northern Coast Range AMA*

The Northern Coast Range AMA guide (USDI Bureau of Land Management and USDA Forest Service, 1996b) was drafted with the stated purpose of pointing "the way to opportunities for you, as a partner or stakeholder, to take part: in proposing ideas, in suggesting new ways of working together, in planning activities, in getting things done, and in monitoring what we've done to see how well it worked" (1). The guide states that "While overall management goals have been set at the national level, the source for new ideas for meeting these goals must be local people: local citizens, managers, and scientists" (5) and that "Collaboration is the key to bringing these 'stakeholders' together" (5). It also notes that AMA management will focus on economic and social issues in addition to ecological ones, in part because "Defining what is ecologically possible...does little good without also knowing what people want" (5).

The guide includes a detailed "shared vision" (a narrative describing an imaginary tour of the AMA in 2054), although it does not explain how the guide or the vision were developed. There is a lot of emphasis in the vision on volunteer monitoring and trail or road maintenance, as well as stewardship agreements. It also foresees a "North Coast Forest Rendezvous" for "anyone who's interested," where "Ideas and proposals, as well as feedback on current actions, are forwarded to watershed councils and agency managers for further development, evaluation, and possible implementation" (14).

The following statement, which briefly addresses people and communities, emphasizes involvement at the watershed level:

> *The social focus for Adaptive Management Areas is on sustainable practices involving local communities. Their involvement and participation is crucial to the success of adaptive management efforts in the AMA. The entire AMA may be too large an area for most types of community involvement–perhaps the individual watershed scale will be more appropriate for sharing concerns, ideas, and plans. (26)*

One section of the guide includes "Opportunities for public participation." This lists organizations already involved, along with suggestions regarding how the organizations can play a role [e.g., "...can help to connect the interests of different landowners to the adaptive management process" (41).]. Then, it lists existing and potential ways to "open the process to include all persons and organizations interested in or concerned about the AMA" (42):

- *Meet regularly with the Coast Range Province Advisory Committee;*
- *Keep federal agencies in touch with local watershed councils;*
- *Schedule periodic agency open houses;*

- *Make regular presentations to city councils and chambers of commerce–which often have natural resource committees;*
- *Local citizens could form a Northern Coast Range AMA Volunteer Association;*
- *Provide structured volunteer activities: adopt-a-forest-road, adopt-a-forest-trail, adopt-a-meadow, monitor a stream, maintain or clean-up a campground, conduct wildlife surveys, conduct research study measurements, conduct population counts of wildlife species, develop bird lists for an area;*
- *Recruit individual volunteers to assist with agency programs;*
- *Develop cooperative programs with public school classes and community colleges;*
- *Schedule public tours of management activities;*
- *Make presentations to clubs and organizations;*
- *Form partnerships to provide and maintain new facilities, roads, trails. (42)*

Some of these ideas came out of a series of AMA public workshops (Craft and Alexander, 1995, 1996). Numerous suggestions included the words "go to," meaning that people were asking the Forest Service to proactively reach out to formal and informal networks in the communities.

Finally, the guide includes a discussion of "Educational opportunities," or ways that information can be shared. The Appendix of the guide also lists "Current educational opportunities and information sharing (10)," such as:

- presentations;
- open houses;
- tours;
- donation of seedlings;
- participation in parades, the state fair, job fairs, and National Fishing Week;
- publication of the AMA quarterly report, Project Update, BLM News, news releases, and videos;
- education programs, some of which are tied to schools;
- a web page; and
- challenge cost-share, volunteer, cooperative, and other agreements.

AMA personnel have been actively working with the Coast Range Province Advisory Committee (PAC) and local watershed councils. Specifically, the AMA coordinator has facilitated meetings of the PAC's subcommittee for the AMA. Several recommendations made by the subcommittee have been adopted by the agencies. AMA personnel have also been working in conjunction with the subcommittee, other interested members of the public, and researchers on a process for landscape-level learning designs, including identification of issues and formulation of alternatives. In addition, AMA personnel have worked with two watershed councils, who have formed committees to work in partnership with the agencies on AMA management issues and opportunities (Warren Tausch, personal communication).

One of the challenges faced by Northern Coast Range AMA personnel has been generating public interest and involvement in the AMA. In January 1996, their quarterly report stated that it would be difficult to generate involvement through traditional public meetings. In fact, documentation from a series of public meetings in 1995 and 1996 indicates that agency personnel almost always outnumbered citizen attendees at the meetings (Craft and Alexander, 1995, 1996). As a way to try to overcome this challenge, staff shifted emphasis to taking AMA presentations to meetings of established organizations (1/96 Quarterly Report). They later reported that presentations to civic clubs, industry, special interest, and environmental groups worked well, attracting a spirited audience who asked a lot of questions. Also, as a way of trying to broaden public workshop attendance, they planned to increase personal contacts (4/96 Quarterly Report).

## *4. Central Cascades AMA*

The Central Cascades AMA has completed a Strategic Guide (Eugene District USDI Bureau of Land Management et al., 1996) that reflects substantial consideration of local publics. The guide emphasizes relationship building, and notes that relationships depend on effective communication. The guide uses terms like guiding principles, themes, and opportunities to describe both actions undertaken or proposed.

The guiding principles for the Central Cascades AMA are to:

> *Work differently. Create opportunities for working differently, across jurisdictions, interests and disciplines. Try new things. Learn from one another.*
>
> *Interact with communities. Interact effectively with all communities to develop innovative management approaches and make the most of available resources.*
>
> *Use adaptive management processes to adapt practices. Identify learning objectives, implement projects, exchange information, evaluate the effects of change and adjust or adapt practices, policies and actions accordingly. (Eugene District USDI Bureau of Land Management et al., 1996:34)*

There are several noteworthy themes for the Central Cascades AMA as well. For example, the theme "Communicating for shared learning and adapting practices" includes the following objectives:

- Personalize the implications [helping people understand the implications of decisions by "...developing long-term relationships between agency personnel and community members, working with community strategic plans and understanding community goals" (36).];
- Wise decision-making (scientifically credible, access to the latest technical information from studies);
- Policy development (improved through sharing information);
- Outreach; and

- Use local knowledge.

Another theme, "Linking people and communities with ecosystem management," focuses on collaboration and cooperation, economic opportunities, and technical assistance.

AMA personnel have undertaken several types of communication activities including:

- field trips;
- public meetings;
- a regularly distributed newsletter;
- one-on-one communication; and
- membership in and discussion with existing external groups.

In addition to listing activities undertaken, the guide also discusses implementation opportunities and sharing and learning opportunities. Implementation opportunities include information exchange activities (e.g., disseminate information through web site and newsletters), and activities that support community plans (e.g., support environmental education programs at schools). One sharing and learning opportunity specific to landscape design activities is to "support efforts and create opportunities that allow for one-on-one and small group information sharing from landscape design development" (39). Other sharing and learning suggestions related to different activities include: supporting work by external groups, developing cooperative agreements, creating a video, and hosting forums, workshops, and symposiums.

One unique process undertaken was a public participation pulse event, where citizens were invited to express their views on communication, processes, and relationships on the AMA. The result of the event was a list of "what's working" and "what isn't working" ("Results of the CCAMA public pulse event," ND; Diana Bus, personal communication), which is summarized below.

"What's working"

- a local newspaper column about the AMA;
- provision of information through a newsletter and through presentations at meetings of established groups;
- local people being able to see that their input is being used;
- having agency staff dedicated specifically to the AMA (i.e., the AMA coordinator);
- agency personnel's consistent efforts to seek and identify opportunities for citizens to be incorporated as part of the process;
- agency staff taking risks and being straightforward;
- agency involvement in the schools' natural resource curriculum;
- a Sweet Home Open House;

- community round tables; and
- getting to know one another on a one-to-one basis.

"What isn't working"

- written materials too numerous, too technical, too difficult to compose, or appear to be driven by who paid for them;
- meeting times and locations not convenient for all;
- agencies' efforts not reaching all groups;
- lack of follow through on decisions;
- difficult to see the relevance of projects at the "conceptual level;"
- lack of cross-fertilization between public, research, and interest groups;
- the existence of few successful public involvement models to emulate;
- policy changes that undercut people's investments;
- agencies having to constantly reeducate revolving publics;
- meeting sponsors setting the tone and agenda;
- ownership of sides suggests that there are winners and losers; and
- citizens' continued investment in the process is at risk: people feel involvement is thankless, are getting tired of participating, or do not have time or resources to dedicate.

The AMA also completed a "Research and Learning Assessment" (Cissel, 1995) that includes a chapter on "Research, Management, Public Questions, and Potential Studies." It contains a number of ideas and questions that address citizen/agency interactions. Some questions identified as high priority are:

> *What kinds of public involvement techniques will help ensure that all interested voices are heard up front and throughout the process?*
>
> *What form of collective decision-making process will help ensure that decisions made can be implemented? How can common ground be found? Can consensus be reached? Will an advisory group be formed, and if so, what is the best way for it to function?*
>
> *What is the linkage among Adaptive Management Area and community goals?*
>
> *What is the public understanding and acceptance of managing within the range of natural variability?*
>
> *What is the role of the public in establishing measurable ecosystem management objectives? (34-35)*

The research and learning document also includes other questions that address people's use of the area, the local communities, and acceptability of forest practices, with an "Opportunities" chapter that notes geographic areas where these questions might appropriately be asked. The chapter also introduces "Larger-Scale Opportunities," such as "Comparison of alternative public and inter-governmental participation models":

*A variety of approaches for involving citizens in land management decision-making processes have been attempted on the Willamette NF and elsewhere (e.g., Consensus Groups, Fruitful Discussion Group, 318 Advisory Boards, Delta Showcase, Forest Plan, etc.). In addition, other models have been described and used in other parts of the region and country. One possibility might be to describe 2-4 alternative conceptual models for public and inter-governmental participation, and then test them out in different parts of the Adaptive Management Area. The effectiveness of these approaches could then be monitored. Citizens and representatives from other governmental bodies could help design alternative models. Projects such as road closures might be good candidates for public and inter-governmental participation. (54)*

It concludes with several general research and learning themes that acknowledge local interests, including "public and intergovernmental participation":

*There is a strong history of public and intergovernmental interactions within the Adaptive Management Area. A variety of approaches have been attempted in the past with varying levels of success. The initial Adaptive Management Area public meetings indicated further interest in developing meaningful approaches for citizen involvement, and it is a continuing theme of managers and scientists as well. Adaptive management and collaborative learning models may offer direction for further development in this area. (57)*

Finally, there is also an educational assessment that was prepared for the Central Cascades AMA (Druliner, 1995). The assessment includes descriptions of dozens of natural resource education organizations and other resources that service the Central Cascades AMA area and offers suggestions regarding developing a more integrated community-wide approach to natural resource education. The Central Cascades AMA relies in part on the organizations described in the assessment for educational and outreach efforts (Diana Bus, personal communication).

## 5. *Little River AMA*

The current public involvement strategy being used on the Little River AMA is an adaptation to the needs and interests of local groups and individuals. Early AMA meeting disruptions led to a re-evaluation of the large public meeting approach. Integration with existing groups, agencies, and partners is now stressed (Barbara Fontaine, personal communication).

*The Forest Plan...encourages the development of approaches that are appropriate for the local area...the Little River AMA public involvement strategy was restructured to draw on the strengths of existing organizations and partnerships.*

*The current public involvement strategy is a deliberate approach of involving self-identifying publics with the management process. It stresses increased awareness of adaptive management projects, strengthening support, and expanding involvement. (USDA Forest Service and USDI Bureau of Land Management, 1997:10)*

The Little River AMA's draft plan (USDA Forest Service and USDI Bureau of Land Management, 1997) gives examples of communications now being tried on the AMA,

including a newsletter, web pages, and presentations to groups. Several partnerships are also described, including a jobs-in-the-woods project and a school-to-work project.

The plan includes a shared vision of the desired future condition of the AMA. Social-economic desired future conditions include: "public knowledgeable about ecosystem management" and "private landowners and local public participating in collaborative land management process" (11). The plan also suggests exploring "Locally crafted approaches to involving agencies, organizations, and citizens in 1) setting objectives, 2) mutual learning, 3) monitoring, and 4) assessing accomplishments" (4).

In addition, the plan provides implementation monitoring questions related to the primary emphasis and strategy. These include: "Are projects in the AMA addressing the emphasis and strategy?" and "Are projects developing and testing new and innovative approaches (14)?" Although not explained in detail, the strategy identified to address these questions is "annual evaluation by peers and public" (14). Finally, the plan lists several effectiveness monitoring questions related to desired future conditions, including:

> *Is the public knowledgeable about ecosystem management? Strategy: periodic surveys.*
>
> *Are publics contributing to planning and implementation of projects in the AMA? Strategy: Periodic peer and public evaluation.*
>
> *Are the techniques developed to involve the public working? Strategy: Periodic peer and public evaluation. (18)*

The AMA's quarterly reports provide some indication of what staff have learned about interactions with citizens. For example, the process of integrating public involvement with their social assessment worked well, making citizens a part of the process (10/95-12/95 Quarterly Report). Also noted were the importance of verbal communication in avoiding misunderstandings over sensitive topics and written agreements between partners in projects, which need to be developed up front so that objectives and roles are clear (10/95-12/95 Quarterly Report).

## 6. *Applegate AMA*

The Applegate AMA has completed a draft guide (USDI Bureau of Land Management and USDA Forest Service, 1996a). The guide includes the following vision for the Applegate AMA, which was developed by agency personnel and citizens:

> *The Applegate Adaptive Management Area is a working laboratory for technical and social learning about ecosystem Management. We are dedicated to healthy and sustainable systems that support human and wildlife habitation and offer needed resources for all time. Systems are integrated and interdependent, and include the social, economic, organizational, and biotic components. We are committed to: good land stewardship, leaning how to maintain a diverse and resilient ecosystem over time, and achieving AMA objectives through innovation as well as application of adaptive Management principles.*

> *Our relationships are open and honest; information is easily accessible. We recognize the importance of the voice of local people and the impact of forest Management on their lives. We also seek opportunities for any interested people to participate, no matter where they live. We are committed to improving relationships, participating in collaborative problem-solving, and to working across boundaries...(9)*

One of the specific AMA goals is to "Enhance the relationship of agencies to the communities adjacent to the AMA...to create a climate of trust and cooperation between agencies and private citizens" (10). The Applegate area is unique because it is home to the Applegate Partnership, a model for creation of the AMAs. Agency personnel participate in the Partnership, exchanging information and helping to identify collaborative opportunities. In addition, AMA activities include open houses, field tours, neighborhood meetings, and communication with people through mailings, personal phone calls, and Applegate watershed web pages. The Applegate Partnership's newsletter, which is distributed throughout the valley, also publishes information about the AMA.

The Applegate AMA guide identifies numerous issues along with strategies and actions to address those issues. Some strategies entail citizen involvement. For example, in discussing the issue of prescribed fire, the guide states that one strategy is to "Develop workshops and experiences to include communities in reviewing burn plans and monitoring results" (40). In discussing aquatic issues, a future strategy is to: "Actively engage people living in these drainages to become involved in the process of learning about streams and riparian areas in their neighborhoods. They must 'gain ownership' in the protection and restoration of streams and riparian zones on, and adjacent to, their land if there is to be substantive recovery of habitat" (48).

In a discussion of "Social and Economic" issues, the guide identifies several concerns of local citizens, including:

> *Community members want the agencies to be more "responsive." They want federal personnel to be good neighbors and good communicators. They want forest products to become more accessible by reducing red tape and creating opportunities for local employment. Many people want to be involved in the development of projects on federal lands, from the first idea-generating phase, through alternative design, implementation, and monitoring phases. (52)*

In an effort to be responsive, the agencies' strategies for addressing social issues on the AMA include:

- Improving communication by offering training for personnel, designing projects with formal and informal communication components, considering the context in which communication is taking place (e.g., considering the background of field trip participants), using a network approach to maintain contacts, and implementing other changes (e.g., avoiding the use of technical jargon; tracking issues by individuals and following through with them, etc.).

- Increasing natural resource educational opportunities by communicating information regarding the issues that people are concerned about, becoming more involved in schools and training programs, and organizing workshops, campfire programs, or visiting speakers programs.
- Ensuring involvement of both local and non-local citizens through the use of monitoring or other projects that could involve citizens, and through the use of mailings and personal contacts (USDI Bureau of Land Management and USDA Forest Service, 1996a).

In order to enhance sharing among agency staff, AMA personnel have implemented one page "learning summaries," where challenges and successes can be documented. One summary addressed citizen field trips (Rolle, 1996b) and pointed out "the difficulty in communicating technical information to a broad audience." In the field trip setting, AMA staff learned that the background of the participants mattered (e.g., people attending their first meeting have a harder time tracking the concepts), understanding was enhanced by the use of pictures and graphics, having general proposals to present was more effective than simply taking people out and asking them what they think, and the biggest problem was overcoming "old baggage." Personnel used pictures, graphics, and field trips to reframe people's images of timber harvests. They also found out what old issues people were still mad about and tried to address these problems. Rolle suggested that the agencies might even seek professional advice on improving their communication techniques.

As noted above, one of the challenges facing Applegate AMA personnel is how to connect with citizens and encourage public involvement. So far, personnel have found that sharing information with people, field trips, a collaborative fire management project, and using a "network" approach for maintaining local contacts and encouraging participation worked well. On the other hand, open houses and newsletters or fliers ("fraught with agency rhetoric") did not work well, nor has staff had much success in "engaging regional or national communities of interest at the local level" ("Response to #3 for AMA's," ND). Overall, staff try to be responsive to citizens' needs in an effort to make interactions work: "We'll meet with anyone, anywhere, anytime, about almost anything. We'll speak in their language (terms) as much as possible. We'll listen to them (new info, issues, concerns)" (Drehobl, 1997).

## *7. Hayfork AMA*

Several forms of public participation were used in developing the Hayfork guide (Shasta-Trinity National Forest et al., 1996), including:

- workshops;
- formal and informal presentations at agency meetings;
- mass mailings;
- posting notices;

- an information booth at the fair; and
- one-on-one conversations.

Other strategies used by the AMA to share information include: web pages; quarterly reports (to other AMA coordinators); Trinity County's local community computer network; a section in the library devoted to the Trinity River Restoration program; and the Trinity Community GIS, which will be available to citizens.

The objectives expected to be accomplished through the AMA guide development process were to:

- *Bring the public in from the very beginning;*
- *Provide the participants with the information they need; and*
- *Create a situation where agency personnel and the public, as well as those representing diverse interests, work together on the Guide to 1) learn from each other, 2) have the communities find ways of working together, 3) share leadership on achieving AMA objectives with the public and 4) stimulate leadership within the groups. (10-1-2)*

The authors of the guide present two broad criteria for monitoring success of the guide: is it used, and are ideas identified in it implemented?

More generally, the guide lists the overall AMA objectives, including: "Successes and failures are widely shared so that everyone can learn" (1-3), "Local ideas and approaches are encouraged" (1-2), "Federal and state agencies, researchers, local groups, landowners, communities and individuals work together to achieve the Hayfork AMA objectives" (1-3), and "Innovation and experimentation are accepted and encouraged" (1-3). Again, the guide states two broad criteria for monitoring the success of the AMA itself: how well activities meet AMA objectives, and how well the AMA meets people's expectations.

The guide also discusses several potential approaches for involving citizens, such as the use of public forums to discuss project priorities and the use of local contracting. There are examples in the guide where citizens demonstrated their desire to find ways to become involved [e.g., "Use field trips for monitoring and for people to learn. Also a good way to bring people together" (3-9); "Need to learn how local groups can be a part of the decision-making process" (5-4).] One innovative step taken so far on the Hayfork AMA was to hold public meetings to discuss proposed research on the AMA, to solicit comments on the proposals, and then to survey participants about the proposals and about their trust in the Forest Service's Pacific Southwest Research Station (Cvetkovich, 1995).

One innovative project taking place is a small diameter stands demonstration project initiated by local citizens and being carried out by the Hayfork Watershed Research and Training Center (WRTC). The project focuses on the harvesting, processing, and marketing of thinned materials from forest stands in order to reduce fuels and to create local jobs. The project was brought to the Forest Service by local citizens, and the agency has worked in

partnership with citizens and the WRTC, making land available for the demonstration through a no-cost agreement (JoAnn Hereford and Lynn Jungwirth, personal communications).

Thus far, personnel have reported that several cooperative and local programs, such as a community fire protection project, a worker retraining program, and a cost share agreement for internet pages, are working (1/95-3/95 Quarterly Report).

## *8. Goosenest AMA*

The Goosenest AMA plan is in progress. Completion of a draft plan is expected in the summer of 1997. One recent activity undertaken for the development of the plan was to bring together agency personnel and local community leaders to identify "integrated opportunities." Participants examined documents, such as community action plans and the "Goosenest Adaptive Management Area Ecosystem Analysis" (USDA Forest Service, 1996a), looking for matches between resource uses and community needs. Together, they were able to identify about one dozen opportunities, which will become a part of the AMA plan. Another recent accomplishment was completion of a vision statement for the Goosenest AMA. The vision statement is a product of public meetings, comments, and one-on-one communication with citizens over a long period of time (Heidi Perry, personal communication). The vision stresses collaboration, experimentation, learning, sharing, and relationship building.

The comprehensive Ecosystem Analysis mentioned above includes a "Public Involvement Strategy." The strategy provides a preliminary list of activities to be undertaken for development of the AMA plan, some of which are currently underway:

- *create one page brochure for newcomers;*
- *continue newsletters;*
- *develop videos;*
- *conduct theme field trips;*
- *start quarterly breakfasts;*
- *construct web pages;*
- *participate in organized group meetings, presenting projects with map and photo displays;*
- *involve PAC members in public involvement plan; and*
- *develop project workshops and notify people through the media (B-2).*

In addition, AMA personnel have attended local fairs, setting up an AMA booth staffed by state and federal agency representatives, as well as by local citizens involved in the Goosenest AMA.

In their experiences thus far, Goosenest personnel learned that the use of conventional public meetings did not produce the amount of involvement from the communities as was hoped. However, they found more success with an open house format:

> *The community members that attended the Open House/meeting seemed to like the variety of the format. It gave them a chance to meet with forest employees and interact one-on-one so they felt heard. Then re-grouping at the end of the night provided a forum to speak and hear about regional and political issues and their effects on the AMA. (1/96 Quarterly Report)*

## 9. *Olympic AMA*

The process for creating a guide for the Olympic AMA is also underway, with a draft expected in September, 1997. Staff have undertaken several steps to gain public input for the guide, such as one-on-one or small group conversations with representatives of local government and interest groups, and a series of public workshops. The Olympic Province advisory committee has also been actively involved in development of the guide, providing information and process review (Ward Hoffman, personal communications).

The Olympic has produced an overview ("AMA Overview..." 1995), which contains some background for the AMA, including the dispersed nature of the AMA and its communities. It discusses public involvement on the AMA, highlighting participation at the district level:

> *Since effective public involvement is a cornerstone of successful AMA management, it is important that the communities affected by AMA activities have ready access to those involved in the administration of the AMA. In the case of the Olympic AMA, it is the Ranger Districts, and the local publics and Native American tribes served by each, that are likely to be the most effective in fostering solid communication links and meaningful interaction in setting the future course of AMA operations. (4)*

## 10. *Finney AMA*

A formal process to create a plan for the Finney AMA has not yet begun, but is expected to start during fiscal year 1998. Prior to pursuing the heart of the Finney AMA planning process, the staff will undertake several watershed analyses, as well as a Late-Successional Reserve Assessment for the Finney LSR, which covers most of the AMA.

Interactions among agency personnel and citizens on the AMA thus far include: early aerial flights with environmental groups, Tribal, and local community representatives; public meetings and one-on-one communications during watershed analyses; presentations in communities; and most recently, a field trip to the area by the Western Washington Cascades Province Advisory Committee (Joe Iozzi, personal communication; Chris Hansen-Murray, personal communication). At the present time, the Advisory Committee is considering its possible degree of involvement in the Finney AMA planning process, and the best way for such involvement to take place.

Two important issues for local citizens that have surfaced thus far are potential road closures (proposed prior to AMA designation) and timber availability. Personnel have also

found, given the many different processes occurring on the AMA and in national forest management more generally (e.g., watershed analyses, environmental analyses, Access and Travel Management processes), that citizens get "burned out" from participating. Typically, a citizen's response in this situation, where there are many different opportunities for public involvement, is to carefully choose where to put his or her energy. Citizens often choose to focus on participation processes where a decision will be made, rather than on a report or document. The level of direct involvement in the AMA planning process will depend somewhat on the degree to which it appears that the process will lead to specific decisions related to resource use on the Finney, as opposed to it being more of a "vision" process (Chris Hansen-Murray, personal communication).

## D. SUMMARY

**AMAs are using a variety of formats to interact with citizens.** In a more traditional sense, public participation has meant public meetings, submission of written comments, and other forums that often entail one-way transmission of information. AMA activities have included such forums, but they have also included field trips, videos, web sites, open houses, participation in existing groups, and volunteer projects. Some AMAs are trying to emphasize more personal interactions, or opportunities for agency personnel and citizens to interact in one-on-one and small group situations. Public involvement activities are summarized in Table 1.

To different degrees, the AMA plans (or guides) indicate a recognition of both the importance of and the need to improve upon citizen/agency interactions. Certain AMAs have shown evidence of using innovative approaches to involve citizens. For example, the Cispus introduced an "anecdotal assessment" in its watershed analysis, using long-time residents and users of the area to help describe the watershed. However, many efforts to involve citizens still follow traditional methods.

**Some AMAs are generating ideas and learning about citizen/agency interactions.** Reflections on what personnel have learned, found in quarterly reports and similar documents, provide insight into AMA experiences. Personnel are discovering that certain formats worked well on their own AMA, although those formats may not have worked well on other AMAs (e.g., open houses), showing that context—the details of a particular interaction and information about what else is going on—is important.

**Aside from the activities that were undertaken to produce the plans themselves, most of the ideas in the plans remain just that—ideas.** In many cases, documents may be written with the "right" language, but it is not yet known what is actually being implemented and how successful actions have been or could be. Several examples might be instructive. First, some AMAs stressed the need for "meaningful interaction," trying different forms of public involvement, and comparing different methods of interactions to see what works best. Although there is some anecdotal information about various experiences with interactions, it is not yet clear to what extent this is happening. Second, there have been some efforts to

develop "shared visions" for the AMAs through interactions with citizens. It is not apparent how inclusive these visions are or how successful the agencies have been at reaching a diverse range of publics. Third, AMA guides state that one of their purposes is to point to or provide opportunities for people to get involved. How many genuine opportunities have there been for citizens to have their voices heard? Have the agencies been able to incorporate citizens' ideas? It is clear that we need effective means to determine the answers to such questions.

*Table 1: Summary of AMA Public Involvement Activities*

| | |
|---|---|
| DISSEMINATING INFORMATION | ▪ public notices, announcements<br>▪ mass mailings, mailings to key contacts<br>▪ web pages<br>▪ videos<br>▪ newsletters<br>▪ information display in local library |
| GATHERING INFORMATION, INTERACTING | ▪ public review of documents/public comments<br>▪ surveys of participants<br>▪ public meetings<br>▪ presentations to civic clubs, local government, environmental groups, industry groups, or other organized entities<br>▪ open houses<br>▪ workshops<br>▪ field trips, tours<br>▪ agency participation in established groups<br>▪ interaction with watershed councils and provincial advisory committees<br>▪ informal contacts, one-on-one communications<br>▪ collaborative learning processes |
| ACTIVE PROJECTS, OUTREACH | ▪ community GIS<br>▪ volunteer projects<br>▪ cooperative projects<br>▪ educational programs in schools<br>▪ agency participation in fairs, parades, other local events |

**AMA planning documents tell us something about agency goals for citizen/agency interactions.** They provide a useful set of information about what those involved would like to have happen and what they think is important. Goals are often explicitly stated in AMA documents; sometimes they are implied. Research questions discussed in the documents also sometimes reveal what goals might be. For example, the question "What kinds of public involvement techniques will help ensure that all interested voices are heard up front and throughout the process?" (Cissel, 1995:34) reveals several possible goals, including: 1) learning

about different public involvement techniques; 2) ensuring that techniques used are inclusive; and 3) ensuring that techniques used start early and are continuous in the decision-making process.

We can use these ideas to help observe what unfolds on the AMAs and to begin to build a monitoring and evaluation framework for use on AMAs and in other settings. Using ideas from the plans and related documents, a preliminary list of goals for citizen/agency interactions (which might also suggest success criteria) has been constructed in Table 2.

*Table 2: Goals for Citizen/Agency Interactions on AMAs*

| | |
|---|---|
| GENERAL | ▪ Learn<br>▪ Innovate<br>▪ Share |
| LAND MANAGEMENT | ▪ Meet ROD guidelines for AMA plans and for land management<br>▪ Discover innovative approaches to land management<br>▪ Find a balanced way to manage the ecosystem on a sustainable basis<br>▪ Include community members in monitoring |
| DECISION MAKING | ▪ Bring public in from the beginning<br>▪ Identify public values, ideas<br>▪ Identify issues, share concerns, discuss priorities<br>▪ Develop collaborative decisions |
| RELATIONSHIPS & COMMUNICATION | ▪ Communicate effectively<br>▪ Build relationships<br>▪ Increase personal interactions<br>▪ Reduce conflict |
| PARTICIPATION | ▪ Generate interest in AMA<br>▪ Provide opportunities for participation<br>▪ Increase and broaden participation<br>▪ Learn about and improve public participation<br>▪ Try different forms of public participation and monitor findings |
| INFORMATION AND LEARNING | ▪ Provide information<br>▪ Increase knowledge and understanding<br>▪ Exchange information<br>▪ Personnel and public learn from one another |
| COMMUNITIES | ▪ Help local communities<br>▪ Define opportunities for contributing to economic stability<br>▪ Sustain local communities and people |

# IV. CITIZEN/AGENCY INTERACTIONS: GOALS, CHARACTERISTICS, AND INFLUENTIAL FACTORS

## A. INTRODUCTION

This section builds on the previous chapter in several ways. First, it expands our examination of the goals of citizen/agency interactions beyond the AMAs. Relevant findings from public involvement research (along with additional insights from the AMA documents) are used to summarize both broad goals for citizen/agency interactions (Part B) and more specific characteristics of "successful" interactions (Part C). Second, whereas the previous section focused primarily on the "agency" viewpoint of goals for citizen/agency interaction, this section adds information on the "citizen" viewpoint (Part D). Finally, a discussion of factors that affect citizen/agency interactions is also provided (Part E).

## B. BROAD GOALS FOR CITIZEN/AGENCY INTERACTIONS

> *Perhaps the issues are, as they have been from 1789 on, issues of controlling government, assuring sound and wise decisions, providing for due process, protecting minority views, establishing responsibility and responsiveness, seeking equity, and striving for the public interest. (Wengert, 1976:39)*

Before examining the specific attributes that characterize or indicate success in citizen/agency interactions, it is useful to first provide a discussion of the basic reasons for such interactions. This discussion may help provide a context for understanding why particular interactions might be considered "successful" or "unsuccessful."

In a synthesis of public involvement research, Lawrence and Daniels (1996) described goals articulated over time by different researchers, practitioners, and citizens as falling into two categories: (1) to arrive at decisions that better achieve resource management goals; and/or (2) to come to decisions that enjoy increased public support.

In the first case, the concern is with decisions being "objectively better" (Lawrence and Daniels, 1996). The *quality of decisions* is improved in part by giving citizens the opportunity to provide relevant information (Cuthbertson, 1983). Involving citizens is done to reveal issues of concern, understand the public values associated with those issues, and explore a full range of alternatives for addressing issues, along with the possible consequences of those alternatives.

In the second case, decisions are perceived by participants to be "subjectively better" (Lawrence and Daniels, 1996). As their distrust of bureaucracies grows, citizens are increasingly demanding opportunities to participate in decision making processes. Decisions made with public participation may have *increased support* in part because "people are more likely to accept the outcome of a process that they perceive as fair" (Knopp and Caldbeck,

1988:18). On the other hand, Creighton (1983) challenged the idea that "a participative decision-making process bestows legitimacy on the context of the decisions made (4)," noting that if the person or persons participating feel as though their survival is at stake, "no amount of participation in the decision-making process will substitute for getting the answer out of the process which that group needs to continue" (4).

An essential overriding principle in any process is that public input should *actually be used* in decision making (Lawrence and Daniels, 1996):

> *...public participation means activities undertaken by a government agency to provide opportunity for the public to influence government decisions. (Cuthbertson, 1983:102)*
>
> *Participatory democracy exists when individuals have a known and quantifiable effect (more than zero) on the (resource allocation) decision. (Knopp and Caldbeck, 1988:15)*

Further, Blahna and Yonts-Shepard (1989) asserted that it is important that people be able to see how their contributions were used in decisions. People should be able to trace the steps used in coming to a decision--decision making should be transparent.

> *A distinction is made between simply listening to the public versus actually allowing them to influence the land-use or resource allocation. This distinction is hard to establish. As long as the ultimate decisions, the tradeoffs, occur in a black box, no one on the outside can be sure that the public has any influence. (Knopp and Caldbeck, 1988:14)*

While Lawrence and Daniels' reasons for public participation emphasize *decisions*, another view focuses on the *relationships built* during citizen/agency interactions:

> *For public agencies, the real product of planning is not the plan, but an enduring relationship with the agency's constituents, clients, and customers. Properly done, the benefits of public involvement will continue long after a plan is complete or the decision made. (Shands, 1992:364)*

FEMAT's interpretation of the public involvement literature seemed to focus more on public involvement as a *means of information exchange*. The authors of the social assessment found that the literature generally reflected three reasons for public involvement: "(1) a means of informing the public of agency plans, (2) a way to obtain public views about these plans, and (3) collecting public information that might be of use in planning" (USDA Forest Service et al., 1993:VII-99). However, the authors went on to broaden this discussion with several "more fundamental reasons," including:

- Citizens have a *right* to influence decisions that affect them.
- Citizens have a lot of *knowledge to contribute to effective decision making*. Citizens and resource managers can *learn* together (social or mutual learning).
- Public involvement can *enhance understanding among people*.
- Public input is an important source of *information about public values*, information which is critical to decision making.

Although there are different approaches to citizen/agency interactions, the goals described here are not incompatible. Multiple goals can be pursued simultaneously, often with one providing the foundation or support for another (e.g., building relationships over the long term might improve the quality of decisions and the level of support for decisions).

## C. SPECIFIC CHARACTERISTICS OF "SUCCESSFUL" CITIZEN/AGENCY INTERACTIONS

Specific characteristics of successful interactions have also been identified by researchers. They have been organized into five categories for discussion.

### *1. Inclusive*

Public involvement is often considered more successful if the processes used are inclusive and garner broad representation (Lawrence and Daniels, 1996; USDA Forest Service et al., 1993; Stankey and Shindler, 1997; Blahna and Yonts-Shepard, 1989). Processes through which public involvement efforts are conducted and the rules of engagement for interactions between agencies and publics are important, because we cannot "assume that volunteer organizations or public interest groups will adequately or fairly represent the total spectrum of public values" and because "...there is no absolute standard by which to determine whether a fair balance has been reached" (Knopp and Caldbeck, 1988:14). Thus, having a variety of mechanisms and forums for public involvement is essential (USDA Forest Service et al., 1993). These may reach different segments of the population who are more or less comfortable with, or have more or less resources to participate in, different forums.

On the other hand, some argue that broad representation may not be an essential criteria for public involvement: "In a democracy, participation is voluntary and therefore is not expected to be representative of all segments of the general public" (Cuthbertson, 1983:102). Still, the issue is not whether *all* groups are represented, but rather whether those that are affected by or interested in the outcome of a decision are given the opportunity to participate. Creighton (1983) challenged the idea that "The failure of a significant ethnic or social group to participate is a sign of failure of a public involvement program" (5). He stated that one could argue that people are not involved because they *are not fully aware of their self-interest* in the issue. But he also asserted it could be argued that people *are aware* but are choosing to focus their energies on other priorities. Either way, agencies are responsible for informing people about the effects that decisions may have on them and providing opportunities for participation.

An issue related to inclusiveness is the magnitude of participation. It has been suggested that public involvement programs are more successful if more people participate (Lawrence and Daniels, 1996). This idea, too, has been debated:

> *One attempt may be to evaluate public participation in terms of amount of participation or participants, but this can lead to overlooking a fundamental principle of*

*public participation, which is that breadth and quality of the public's contributions are more important to decision making than quantity.*

*Having a large number of participants makes it more likely–but does not guarantee–that decision makers receive needed pertinent data. Granted, a large number of participants might generate new data for decision making, but large numbers might also be a sign of serious protracted conflict over the issues. (Cuthbertson, 1983:105)*

## 2. *Interactive and Sincere*

Traditionally, public involvement in forest planning has often meant impersonal communication, such as submission of written comments or meetings conducted with one-way flow of information. More personal, interactive forms of public involvement are more effective (Blahna and Yonts-Shepard, 1989; Lawrence and Daniels, 1996; Shindler and Neburka, 1997).

*Participation must mean full participation or else it is no participation in reality. The word participation does not lend itself very well to degrees. Participation implies action by those involved, not necessarily equal action but action and interaction of some kind by both and each. (Bolle, 1971:501)*

Situations that promote cooperation between parties and positive contact between agencies and others have been considered successful for a number of reasons (Wondolleck and Yaffee, 1994). Interactive communication among citizens and agency personnel can result in mutual learning—all parties can share and learn from one another (McCool et al., 1986). They can result in citizens' enhanced understanding of natural resource issues, increased support for decisions or increased ownership in a project. They can foster agency personnel's understanding of public values and ideas, as well as foster public trust in agencies (Wondolleck and Yaffee, 1994). Likewise, interactions can result in an appreciation among citizens for those who represent the "other side" (Shindler and Neburka, 1997; Wondolleck and Yaffee, 1994).

Interactive processes that facilitate mutual learning require the presence of strong, sincere leadership. Successful citizen/agency interactions begin with agency staff who are able to articulate their reasons for involving the public and then follow through on their commitment (Shindler and Neburka, 1997). Brunson (1992) and Magill (1991) both suggested this starts out with resource professionals who understand they need to speak the public's language and learn about public values and ideas, rather than simply trying to "educate" people about agency programs.

Unfortunately, agencies often view their job as developing information and providing it to the public. This approach of trying to "educate the public" by providing information may not be very effective, as Jamieson (1994) notes:

*Generally programs that provide information are not very successful in improving understanding or changing behavior. Serious thought must be given to what it means to educate both the public and the policymaking community, as opposed to delivering brochures or reports. People tend to respond to stories, analogies, examples, and so on.*

*Education is more likely to occur in the context of a personal relationship than in anonymous information-provision. (26)*

An example from recent research on the Hayfork AMA highlights the importance of interactive processes and the inadequacy of traditional processes where one-way transmission of information was the primary goal. To examine the issue of trust, Cvetkovich (1995) conducted a survey of citizens attending a meeting where agency researchers presented their plans for research. He concluded that, although knowledge of the proposed PSW research was associated with trust, "...solely focusing on increasing the public's knowledge is short sighted...[W]ords, actions, and interactions that promote a sense of shared values would seem to be more conducive to trust" (26).

## 3. *Innovative and Flexible*

Success has been found in Forest Service bridging efforts where a different approach or process was used, where people were involved in decision making and management in "new ways" (Wondolleck and Yaffee, 1994). This included involving the public in more meaningful discussion, proactively establishing relationships, capitalizing on the media and other opportunities for positive interactions, and reframing problems to meet broader objectives and interests (Wondolleck and Yaffee, 1994).

For example, just prior to formation of the Central Cascades AMA, staff there used a creative process to select group members for participation in drafting a new wilderness management plan. They used a criterion-based application process conducted by interest groups "rather than basing membership solely on interest group affiliation and ending up with individuals who tended to represent positions" (Shindler and Neburka, 1997). The criteria used included knowledge of relevant issues, willingness to actively participate, and willingness to commit to a year's worth of meetings. Staff found it helpful to have a stable, on-going relationship, where they did not have to spend time at each meeting bringing new members up to speed (Shindler and Neburka, 1997). This process was similar to one used to select task force members for a project in the Hells Canyon National Recreation Area, where several criteria were used. For example, individuals had to be able to represent the interests of his or her constituency, be knowledgeable about the recreation area, be willing to make a substantial time commitment, and be able to work with people who held various views (Krumpe, ND).

Flexibility is also important (Sewell and Phillips, 1979), and seems particularly relevant in the context of adaptive management. Public involvement can be more effective if processes are adapted in particular situations, based on the specific objectives of a project (Lawrence and Daniels, 1996). For example, Shindler and Neburka (1997) found both agency staff and citizens benefited from jointly analyzing project specific scientific data—GIS layers, stand inventories, and results of field monitoring—to form alternatives. Staff, who interpreted the data for public consumption, felt they learned much more about their options.

## 4. *Early and Continuous*

In terms of the appropriate time for public involvement, research findings are clear: interactions between agencies and citizens should be *continuous* throughout a given process.

> *The decision process, which is fundamental to policy and program formulation, consists of several steps: problem identification, goal determination, identification and analysis of alternatives, decision, action, feedback and re-analysis, etc. The emphasis is on* process. *But note well, the question is not in which steps of the process the public should participate. To raise that query is ridiculous. If there is participation at all it must be within all the process itself–all aspects of the process or none. (Bolle, 1971:501)*

Effective public involvement starts early and continues throughout a decision making process (Blahna and Yonts-Shepard, 1989). When the public is consulted in a piecemeal fashion, only at some points during the process, this can suggest that the agency has already made a decision, or worse yet, that it has something to hide. Little public ownership accrues in decisions made through such a process. Still, agencies have often been slow to invite the public into the planning process. Either through habit, reluctance, or lack of understanding the benefits, staff have not engaged their publics early enough to fully incorporate citizens' ideas or gain their trust. Involving the public from the beginning of a plan (or project) is particularly important on AMAs where community interaction and mutual learning are primary goals.

However, the need to bring publics in early has to be reconciled with the need for what Priscoli and Homenuck (1990) termed "up-front thinking." They noted that agencies should first dedicate internal resources to planning its public participation processes and offered several questions to help personnel organize their efforts:

> *How will decisions be made? What do you hope to accomplish with the public? What does the public need to know to participate effectively? What do you need to know from the public? Who is "the public" for this issue? What special circumstances exist? (74)*

## 5. *Designed with basic strategies in mind*

In general, there is concern over the lack of successful citizen/agency interaction examples or established programs (Doak, 1994, USDA Forest Service et al., 1993), or "a lack of comprehensive processes for providing opportunities for communities to be involved in inclusive collaborative decisionmaking..." (Wondolleck and Yaffee, 1994:18). Yet, at the same time, research suggests that success follows when interactions are designed and conducted using basic organizational strategies.

For example, Shindler and Neburka (1997) found that agency/citizen planning groups were much more successful when their purpose was defined and the end product was identified at the outset. Priscoli and Homenuck (1990) have pointed out that "A prerequisite to good public consultation...is that the agency itself understands what decisions are going to be made, by whom and in what way, and then communicates these facts to the public" (73).

As suggested above, the dilemma for agency personnel is knowing how to balance preparatory work with ensuring the public is invited in early enough to help define goals.

The common message from both agency and citizen participants is "that basic organizational skills, attention to detail, commitment to constituents, and good leadership–all things people normally expect from our natural resource agencies–often mean the difference between success and frustration" (Shindler and Neburka, 1997:19). For example, scheduling meetings and public forums at convenient times seems simple, but citizens frequently cite scheduling as problematic (Shindler et al., 1994). Citizens also want information presented to be less complicated, to be "user friendly, in plain language" (Preister, 1994:28).

Shindler and Neburka (1997) identified additional attributes of well designed processes that contributed to positive outcomes in communities surrounding the Central Cascades AMA:

- *Groups in which the decisionmaker has a regular presence believe their contributions are taken more seriously by the agency.*
- *Working with current and reliable information adds considerably to a credible process.*
- *The "care and feeding" of participants is important. [Advanced distribution of meeting materials, defining terms early, prompt and direct answers to questions by appropriate staffers, and even snacks at long meetings.] (18-19)*

## D. CITIZENS' PERSPECTIVES ON "SUCCESSFUL" INTERACTIONS

> *If the public did not believe that the donations of dollars, time, and energy were generally worthwhile, the donations would stop. (Cuthbertson, 1983:101)*

Public involvement research reflects in part what citizens desire from their interactions with agencies. This section builds on what has already been presented from the literature by discussing instances where citizens have been asked directly about what they want in their interactions with agencies, or what would represent a "success" to them in this arena. Since literature often focuses on local perspectives, a brief discussion of non-local publics is also provided in this section.

During decision making processes, citizens want chances to discuss issues and provide input. They expect agency personnel to listen to what they say, and to be honest, open, and respectful (Shindler and Neburka, 1997; Shindler and Reed, 1996). In addition, citizens want to see evidence that their comments or suggestions are incorporated into decisions, *that their input is actually used in decision making* (Benfield, 1985; Lyden et al., 1990): "for local people, success [is] measured by the extent to which their own ideas and concerns [are] given serious consideration and the agenda [is] not driven by federal agency politics or national debates" (Shindler and Neburka, 1997:19).

Similarly, the "objectivity" of decisions is important to citizens. They consider the type of information used in decision making, preferring scientific data, historical experience, and

other "reliable information" over "interest group demands" (Shindler and Neburka, 1997). Also, the "credibility" of decisions is important. For example, citizens consider who made the decisions ("capable staff with common sense"), whether or not clear long term goals were kept in mind, and whether or not everyone understood the decisions and could see what information was used in making the decisions (Shindler and Reed, 1996). People are more likely to believe information is credible if they trust the person supplying the information (Moore, 1996).

Citizens also expect that something—a plan or a project—will result from their participation efforts (Shindler and Neburka, 1996; Craft and Alexander, 1995, 1996). Interactions are more meaningful to both citizens and agency personnel when they result in on-the-ground progress, such as completion of a project, improvement in resource quality, or the provision of a public service (Wondolleck and Yaffee, 1994). Along with this goes citizens' expectations that someone at the agency is accountable for that plan or project and will follow through on it (Shasta-Trinity National Forest et al., 1996).

Finally, local citizens want decisions to consider and address local needs. This might mean decisions that support the local economy, provide wood for firewood cutters, or maintain public access to forest roads (Shindler and Reed, 1996).

As for broader levels of input, some AMA personnel have been concerned that they have not been able to engage regional or national publics. Much of the emphasis for citizen/agency interactions on AMAs has been on local communities. Inclusion of local knowledge and local citizens in decision making is important and might have been discounted in the past. Yet, given the goals of citizen/agency interactions, and given that AMAs are comprised largely of federal lands, singular focus on local communities is likely to be problematic and may be a factor in the long term success of the AMAs. This concern was evident in a planning process used on Montana's Bob Marshall Wilderness complex: "There must exist a potential for planners to organize citizen participants into a viable political coalition...Those citizens with veto power must be willing to participate, or at least acquiesce [to the planning framework being used]" (Ashor, 1986:550). So far, groups that might attempt to exercise "veto power," such as national environmental groups, have not been willing to participate and do not seem to accept the experimental nature of the AMAs. A letter from the Chairman of the Sierra Club to the Club's Board of Directors (McCloskey, 1995) illustrates some national environmental groups' concerns regarding the types of collaborative relationships that agencies and citizens are trying to foster on AMAs and elsewhere. The author starts by stating:

> *A new dogma is emerging as a challenge to us. It embodies the proposition that the best way for the public to determine how to manage its interest in the environment is through collaboration among stakeholders, not through <u>normal</u> governmental processes. (1; emphasis added)*

His main concern is with a perceived redistribution of power:

> *A fundamental problem also lies in the disparate geographical distribution of constituencies. This re-distribution of power is designed to disempower our constituency, which is heavily urban. Few urbanites are recognized as stakeholders in communities surrounding national forests. Few of the proposals for stakeholder collaboration provide any way for distant stakeholders to be effectively represented. (5)*

The mission to serve and interact with both local constituents and interested national public presents a difficult balancing act for the federal agencies. Still, past experience has shown that finding a balance, rather than focusing on any one particular constituency, is essential to long term success of management efforts.

## E. FACTORS THAT FACILITATE OR IMPEDE CITIZEN/AGENCY INTERACTIONS

Along with identifying characteristics and noting public perspectives on success, it is important to recognize various factors that might facilitate or impede citizen/agency interactions. Knowledge of these factors contributes to our understanding of the context in which citizen/agency interactions take place. With regard to monitoring and evaluating AMAs, contributors and impediments to effective interaction can be summarized in four categories:

1) AMA and local community characteristics;
2) Agencies and institutions;
3) Human resources and relationships; and
4) Non-human resources.

Of course, some overlap exists among categories (e.g., lack of trust might be an existing characteristic that also inhibits relationship building, or a non-human resource like funding probably dictates how much can be done to employ human resources). However, these delineations provide a useful framework for discussion. None of these categories are meant to include only things that either impede *or* facilitate interactions (the existence of something might be a thought of as a barrier in one setting, and in another case its absence might be helpful), nor are they meant to apply only to AMAs, as most are applicable to various situations.

### *1. AMA and Local Community Characteristics*

None of the AMAs started with a clean slate. This can also be said for any other Forest Service or BLM management unit. Each has its own unique set of identifiable attributes, as well as a history that can be linked to surrounding communities or to federal forests in general.

These initial characteristics can influence the development and implementation of each AMA (or other unit). For example, the existence of prior productive working relationships has been found to be a factor in the success of Forest Service efforts to connect with other parties (Wondolleck and Yaffee, 1994). The unique characteristics of the Applegate communities, including their economic and social diversity and strong local leadership, contributed to the initial success of the Applegate Partnership (Sturtevant and Lange, 1995). Also, Forest Service employees' involvement in their community as individual citizens can contribute to how the agency is viewed locally (Shindler et al., 1994). For instance, in rural forest communities, Forest Service personnel are frequently involved in school programs, neighborhood events, or other volunteer activities where they are seen as caring, approachable people.

While these examples describe positive interactions, other conditions can be barriers to citizen/agency interactions. Previous polarization over natural resource decisions, a diverse range of environmental and economic interests in local communities, existing distrust of federal agencies, and "outside" organizations' attempts to stall projects all pose challenges to collaborative efforts (Doak, 1994, Sturtevant and Lange, 1995).

The process through which the AMAs came about is also an issue for many citizens and agency personnel. The AMAs were an idea born from FEMAT, and the FEMAT process has been criticized for its closed nature. It was a scientific exercise that largely excluded managers and citizens.

> *It is problematic among citizens who played no role in establishing boundaries, who had no role in discussions about the purposes and functions of such areas, and who now are confronted with yet another "bureaucratic allocation." It is problematic for managers; AMAs were imposed on them through the FEMAT process (in which they did not participate) and forced them into new alliances (e.g., partnerships across jurisdictional lines). (Stankey and Shindler, 1997:8-9)*

Lack of ownership in the AMAs can be a considerable barrier, especially when people (primarily managers) are being asked to be innovative and take risks.

In addition, the prescribed boundaries of AMAs might also be important. Boundaries carry meaning for people. The extent to which AMA boundaries build on existing recognized geographic regions or existing relationships varies. For example, some AMAs, like the Applegate, are based on watersheds, while others, like the Olympic, are highly fragmented. In another example, the Central Cascades AMA probably carries considerable meaning for scientists and managers because of long term relationships associated with the H.J. Andrews experimental forest, which is located there. Yet, since the AMA includes several major watersheds and is accessed by three different state highways, it may have low recognition–and few emotional attachments–among citizens (Stankey and Shindler, 1997; Doak, 1994).

Finally, the complexity of the AMA designation also serves as a barrier to effective citizen/agency interactions. AMAs are just one land designation among a complex set of many (including Long Term Ecological Research sites, Demonstration sites, and Experimental

Forests), compounding public confusion. People are having a difficult time understanding AMA processes, including how decisions get made and how all the various agencies and projects fit together (Cvetkovich, 1995). In recognition of this challenge, Cissel (1995) raised the following issues about decision making and participant roles:

> *A limitation to broader public and manager engagement with this Assessment is the absence of a clear strategy over how Adaptive Management Area decisions will get made. If choices need to be made for focused implementation, what is that process by which they will be made? At what scale will the choices be made? What are the roles for citizens and scientists? (58-59)*

## 2. Agencies and Institutions

> *Effective participation is essential by all affected publics if policy is to be determined without litigation, challenged administrative fiat, public confrontations, or the continuous process of public conflict with agency determinations that have dominated the open arena within which land mangers have found themselves operating. The initiative for change, in our opinion, still lies within the agencies. The changes required will come. The future will tell us whether the agencies will act as agents of change, or merely be the recipients of the changing social process that characterizes so much of American public life today. The wise foresee the future; it is our hope that public resource agencies find themselves wisely led today. (Bolle, 1971:504-505)*

AMAs do not operate in a vacuum. Their personnel are part of land management agencies, each with a long history and a distinct, but changing, institutional culture that influences their ability to provide effective leadership.

The AMA experiment represents a new way of doing business for resource agencies and while change may be good, it requires some knowledge of existing barriers and constraints. Many of the obstacles to change are internal to organizations. For example, in the case of public land management agencies, several internal barriers are identifiable, such as (1) frustration and lack of continuity associated with personnel transfers and agency protocol (Wondolleck and Yaffee, 1994; Shindler et al., 1994, Sturtevant and Lange, 1995); (2) difficulties with dispersing authority and power; (3) lack of personnel incentives and rewards for flexibility, creativity and risk taking (Sturtevant and Lange, 1995), and (4) personnel's desire to avoid public controversy (Blahna and Yonts-Shepard, 1989).

The level of administrative support and flexibility is an important element in the success of citizen/agency interactions. For example, citizen participants in planning processes on the Tongass National Forest were concerned with the "top-down" management structure of the agency, which they felt interfered with local staff's ability to develop working relationships with the public (Shindler et al., 1994). More successful efforts where agency personnel have been able to work across agency boundaries were often the result of support from supervisors and co-workers (Wondolleck and Yaffee, 1994), and included being responsive to outside ideas, requests, and needs. For example, support from the agencies who stretched to "accommodate this new phenomena" contributed to the success of the Applegate Partnership (Sturtevant and Lange, 1995:14).

Another associated concern is the need for AMAs to be accountable to a large, complex political system. Wondolleck and Yaffee (1994) recognized one barrier to successful citizen/agency interactions is political interference. In the case of the AMAs, Stankey and Shindler (1997) noted there is political pressure on personnel to *produce results*, yet cautioned that successful implementation of adaptive management on the AMAs will take time. The Applegate AMA guide (USDI Bureau of Management and USDA Forest Service, 1996a) addressed this issue, describing how it might impact the agencies' ability to work collaboratively with citizens:

> *Ideally, projects would be planned over a several year period to allow time for surveying plants, animals, cultural resources, etc. Productive interaction with neighbors would occur, and provide resource managers and concerned publics the opportunity to collaborate on landscape activities...The pressure following the completion of the Northwest Forest Plan to produce timber sales is understandable given the lack of sales for many years under the injunction. Landscape-level projects are now being produced in about one year. But the consequences of this push is significant. People are getting "burned out" with the constant aggressive pace. Relationships suffer. The quality of sale planning and community involvement suffers. Expectations are high among many residents in the Applegate watershed that they will have a number of opportunities for in-depth participation in projects over a long time. And the process for genuine collaboration takes more time than "public involvement" approaches used several years ago. Considering the short time frame of projects now being planned, the projects are very good and often reflect changes made after working with neighbors and other interested people. But in some cases the project development phase has felt extremely rushed without adequate time to interact with communities. There is concern expressed among many that this current "hand-to-mouth" project planning operation cannot be sustained. And, as a result, there is a high level of concern that the AMA objective of community participation and collaboration may not [be] possible in the current climate. (77-78)*

Another potential barrier to citizen/agency interactions is a lack of public trust in public land management agencies. This is not a problem unique to land management agencies; general distrust of the federal government is prevalent among American citizens (Zinsmeister, 1995; Leone, 1994). Concerns over trust and credibility will continue to be a primary focus for managers and their publics. Interpersonal trust–characterized in part by a person being able to believe what another says and to think that that the other person is interested in joint gains, not just individual gains–is important to the functioning of groups, to decision making, and to support for agencies. Organizational trust, based on a belief that a process is fair, is also important. However, building trust is difficult; it takes time and requires many opportunities for parties to interact, get to know one another, and for participants' voices to be heard. Trust is also fragile, requiring maintenance of contact between parties and diligent and ongoing attention (Moore, 1996).

Looking more generally at our political system, Goergen et al. (1995) pointed out an additional inhibiting factors to successful citizen/agency interactions. The authors emphasized the importance of people working together for the "common good" in collaborative situations like those being promoted on some AMAs. However, they noted that

people may reach consensus on an issue through such approaches, but that legislative change can only happen through our political system where interests are pitted against one another: "If we promote local or regional republican approaches that create common visions and expect them to make a difference, foresters and other participants must be prepared to see the process through the formal legislative bodies that retain the authority to enforce policy decisions" (10). For the short-term, this concern may not be particularly relevant, as decisions on AMAs are often site-specific ones that do not require legislative action. Still, there are many entry points into the decision making process (e.g., appeals, lawsuits, lobbying for legislative change) that may eventually work in opposition to successful local citizen/agency interactions.

Finally, policy and administrative constraints can also be inhibiting factors (Wondolleck and Yaffee, 1994). For example, the Federal Advisory Committee Act (FACA) has been one highly visible barrier to citizen/agency interactions (Wondolleck and Yaffee, 1994; Sturtevant and Lange, 1995). FEMAT was challenged over the inclusiveness and representativeness of its membership, and it lost in court. Although there were no immediate impacts on the implementation of ideas from FEMAT (the agencies were allowed to proceed with implementation of the Northwest Forest Plan), there were immediate impacts in the communities where agencies were attempting to work together with citizens. Agency personnel were advised to pull out of the Applegate Partnership, causing significant disruption (Sturtevant and Lange, 1995). However, over time agency personnel have begun to move actively participate in the partnership (although they no longer serve on the board) (USDI Bureau of Land Management and USDA Forest Service, 1996a). Even though concern about FACA is not prominent in the AMA documents, this is a barrier that is likely to need clear resolution to ensure long-term success (Stankey and Shindler, 1997; Wondolleck and Yaffee, 1994).

### 3. *Human Resources and Relationships*

Land management agencies are staffed by thousands of individuals with varying experience and perspectives. We should look closely at this individual "human resource" level, rather than just at the institutional one, because the attitudes of personnel within the agencies affect citizen/agency interactions. For example, as noted earlier, messages "from above" are important and often set the tone for how employees approach these interactions. Of equal importance in the adaptive management setting is individual staff members' ability to seek out fresh or creative ideas and a willingness to try them. Wondolleck and Yaffee (1994) found that success in Forest Service "bridging" efforts across agency boundaries followed where dedicated and open-minded individuals, who were willing to cooperate and try more innovative approaches suited to the particular circumstances, were involved. Conversely, fears, lack of trust, and resistance to change were barriers to successful efforts.

In a critique of past agency/public interactions, Magill (1991) focused on certain attitudes and behaviors of natural resource professionals as barriers to effectiveness. He recognized that the utilitarian, independent, and asocial characteristics of resource professionals contribute to several problems. First is an attitude of "we know best," where professionals doubt the

validity of public input and feel that the public is unknowledgeable. Second is a feeling that resource professionals are above politics. Magill stated that "...even though foresters are not politicians, they must operate within a political world. Familiarity with certain political skills is necessary in order to make sound nonmarket decisions" (16). Third is the use of technical jargon, which discourages "the public's expression of emotional values when presenting their views about resource management" (16). For example, agency professionals' reactions to particular situations might be primarily cognitive, or intellectual, while citizens' reactions might be affective, or emotional. Agency personnel need to recognize these differences, and recognize the legitimacy of responses based on feelings, in order for effective communication and public involvement to occur (Daniels, 1997). Finally, documents are sometimes too difficult for members of the public to comprehend. Magill asked, "How can resource professionals serve the public if they impose certain values or are unable to communicate effectively (16)?" He noted some evidence of recent change within the Forest Service, but stated "there is also continuing evidence that decisions made by natural resource personnel display legal and technical narrowness and lack of imagination when innovative decisions are required" (17).

People with willing attitudes *and* interpersonal skills more suited to public interaction are needed in positions where public contact is essential. Unfortunately, resource managers are often placed in positions that require substantial public interaction without adequate attention to whether or not they possess the requisite skills for such positions. Blahna and Yonts-Shepard (1989) shared a similar observation in their review of forest planning efforts:

> *...there was little agency direction on how to collect public input in a way that was relevant for designing alternatives. Most planning team members were struggling simply to understand the complex, technical, and constantly evolving planning process. How public involvement could be used in the heart of the process was never clear. This was exacerbated by the fact that many forests did not have a public affairs staff, so that the public participation activities were being handled by planning team members from staff units such as recreation and minerals. (Blahna and Yonts-Shepard, 1989:217)*

Over time, emphasis on effective integration of agency and public efforts has only increased and grown in complexity. Today, the roles agency personnel are being asked to play are much different than in the past, when citizens' roles were minimized and scientific and technical expertise were key. Now, "Civic discourse is at the heart of representative democracy, and facilitating it is forestry's new responsibility...We fear that most foresters are not well prepared to meet these challenges" (Goergen et al., 1995:11-12). Doak (1994) came to a similar conclusion: "Local agencies are not accustomed to working collaboratively with publics and generally lack the knowledge and skills needed to develop inclusive community-based collaborative approaches for adaptive management" (12). In acknowledging the complexity of the managerial role, Magill (1991) stated that "environmental managers have not been adequately trained to deal with value-laden questions (16)," yet values are at the root of many of our environmental problems. Wondolleck and Yaffee (1994) concurred, also citing a lack of skills, ability, and training among agency personnel.

There are also fundamental questions of staffing and time. AMAs make unprecedented demands on agency personnel at a time when the workforce is shrinking. New programs, open to public scrutiny, may be in peril if the agencies do not have the human and institutional resources to act constructively in response (Jamieson, 1994). Agency staff are not alone in this dilemma; most citizens have limited amounts of time to dedicate to discussions about natural resources (Goergen et al., 1995). In evidence, early data from the AMAs indicated concerns over potential burnout in communities where a small set of individuals was continually being asked to participate in numerous activities (Doak, 1994).

All of these issues are significant, considering that relationship building is an important component of a collaborative environment. Not only does AMA planning and management call for relationship building within and between agencies and with citizens (Shannon et al., 1997), but citizens themselves value the experience of getting to know "the other side" (Shindler and Neburka, 1997). Citizens also value two-way communication about agency projects and actions. For example, in planning harvest alternatives, people have said that they want a relationship between the agency and citizens where citizens gave input, were told how it was used, and then asked for input again. But, in order for this to happen, they need a more trusting, open working environment with direct lines of communication and clear roles (Shindler et al., 1994). The Central Cascades AMA recognized the close tie between relationships and communication:

> *The success of integrating communities with federal land managers and researchers depends upon developing long-term trusting relationships. These relationships rely on effective communication. (Central Cascades AMA guide, 1996:14)*

Trust is an essential aspect of relationships, and public distrust of the agencies, as noted above, is likely to be a barrier to AMA efforts (Doak, 1994). In evidence, the lack of public trust in land management agencies and among different constituencies was noted in Shindler et al.'s social assessment for the Central Cascades AMA (1996):

> *...these responses probably reflect just how pervasive the lack of trust issue is currently– even towards communities or groups other than one's own. Percentages certainly indicate the public is suspect of the forest agencies' ability (and interest) in listening to their local communities. It seems clear that any new approaches to forest management will have to overcome the doubts of citizens about government officials. Local citizens will have to be taken more seriously and have a larger voice in what is being decided. (31-32)*

## 4. Non-Human Resources

Adequate resources are important to success. This section has already touched on adequate staffing, time, and personnel skills. Sufficient funding is also critical (Wondolleck and Yaffee, 1994, Sturtevant and Lange, 1995). Unfortunately, funding has been a limiting factor for AMAs, and has restricted communication and sharing across AMA sites (Schmucker, 1996). For example, on the Olympic AMA, where personnel were facing budget challenges and planning delays, one quarterly report noted:

*Given the current status of AMA planning, it is fortunate that we did not raise the expectations of the public too soon. Our experience highlights the value of being sure completion is likely before making major commitments in the public involvement arena. (4/96 Quarterly Report)*

A related problem was cited by personnel on the Snoqualmie Pass AMA. They discovered that a great number of stakeholders were interested in activity on the AMA, and these people wanted high quality information in order to help them make judgments about specific programs and projects. Given reduced budgets and staff, personnel found providing this information to be a challenge (5/96 Quarterly Report). Finally, in a candid statement tying implementation to funding levels, the Northern Coast Range AMA guide acknowledged that "...future appropriated funds for AMA programs appears uncertain. Yet, without a predictable and stable budget, the AMA will not be successful" (USDI Bureau of Land Management and USDA Forest Service, 1996:53).

## F. SUMMARY

In this chapter, we have attempted to illuminate the picture of citizen/agency interactions by providing perspectives on the goals and characteristics of successful interactions and introducing citizens' expectations for their involvement. The goals and characteristics, or "principles," for citizen/agency interactions are shown in Table 3. In addition, citizen/agency interactions on AMAs should contribute to overall AMA goals, including learning, sharing, and identifying innovative approaches to situations.

These two separate categories–the overall goals and the specific characteristics or principles–suggest that there are two "levels" from which one can monitor and evaluate success. Items on the first list reflect larger goals for successful interactions. Items on the second list might be used as more specific objectives that could be pursued as ends in themselves. Yet, they might also serve as a means to attaining the overall goals for citizen/agency interactions. For example, an agency may strive for early and continuous interactions throughout a single planning or implementation process. One could evaluate such efforts in terms of achieving this specific objective. But on another level, the interactions may be seen as the means to reaching a larger adaptive management goal, where continuous interactions help build long-term relationships and decisions enjoy increased public support. We can learn from the pursuit of goals operating on each level.

Lastly, this section included discussions about the context in which citizen/agency interactions take place, noting specific factors that may influence interactions. These were discussed in terms of AMA and local community characteristics, agencies and institutions, human resources and relationships, and non-human resources. It seems fair to say that the natural resource agencies and their interested publics share in the immense responsibility for making collaborative efforts successful. However, as the one in the leadership capacity, our professional agencies have the greater responsibility. Jamieson (1994) characterized this

responsibility as the need to develop competency within both the Forest Service and the BLM as well as in the communities they engage in dialogue:

> *In the bad old days there was a tendency for government agencies to dictate policy to citizens. These days there is a tendency for citizens to try to dictate policy to government agencies. There is an admission price for engaging in public dialogue. Part of the price is purely formal: to treat others with respect, to be sympathetic to alternative points of view, to strive for impartiality, and so on. Part of the admission price also involves knowing something substantive about the issues: the relevant science, the economics, the values and interests that are at stake, and so on. People do not come with a ready-made ability to engage in a constructive, deliberative dialogue. The Forest Service should do what it can to develop its own competence for engaging in this dialogue, but it also should contribute to developing the competence of those with whom it engages. Only then will the turn towards public participation be mutually educational. (27-28)*

*Table 3: Goals and Characteristics for Successful Interactions*

| | |
|---|---|
| GOALS FOR CITIZEN/AGENCY INTERACTIONS | ▪ Improve the quality of decisions (to arrive at decisions that better achieve resource management goals);<br>▪ Come to decisions that enjoy increased public support;<br>▪ Contribute to the building of long-term relationships;<br>▪ Incorporate citizens' ideas and knowledge in decisions; and<br>▪ Address the well-being of local communities. |
| CHARACTERISTICS OR "PRINCIPLES" FOR CITIZEN/AGENCY INTERACTIONS | ▪ Public involvement should be used to gain information about public values and knowledge;<br>▪ Processes should be inclusive and a variety of mechanisms for interacting should be used;<br>▪ Interactions should take place with all relevant and interested parties, including both local and non-local citizens;<br>▪ Processes should be interactive, personal, and sincere;<br>▪ Processes should be innovative and flexible;<br>▪ Interactions should start early and be continuous;<br>▪ Interactions should be carefully designed, with attention to detail and with purposes and end products for participation identified up front;<br>▪ Decisionmakers should have a regular presence in processes;<br>▪ Information used should be understandable, current, and reliable;<br>▪ Agency personnel should enter interactions with genuine intentions, and be open, honest, and respectful;<br>▪ Citizens should be able to see how their contributions are used in decisions;<br>▪ Citizens should be able to see how decisions are made and what information is used in making them;<br>▪ Agency personnel should follow through on decisions;<br>▪ Interactions should result in improved understanding of issues and of other people; and<br>▪ Interactions are more meaningful to citizens when they result in a tangible outcome. |

# V. MONITORING AND EVALUATING CITIZEN AND AGENCY INTERACTIONS

*Since new things were tried while creating the AMA Guide, it is imperative that the results of these attempts be monitored, evaluated and reported so that others may learn and the process be adjusted where needed. (Hayfork Guide, 1996:10-2)*

We have presented ideas from agencies, citizens, and researchers for adaptive management and specific implementation of AMAs. The particular focus has been on citizen/agency interactions in these settings. As the discussion thus far demonstrates, there is no shortage of questions that can be asked to help monitor and evaluate these activities. The challenge is to do so in a useful framework that is flexible enough to accommodate learning and incorporate new information, is relevant for different types of citizen/agency interactions, and can be used across multiple situations.

This chapter presents a monitoring and evaluation framework based on the body of knowledge discussed in this report. It is more qualitative than quantitative in that is uses a set of discussion points corresponding with each step in the four-part framework. This stepwise process is prefaced by an introduction of the basic conceptual framework, a short discussion of key implementation considerations, and a note on the importance of context. The monitoring and evaluation process follows in Part B of this chapter.

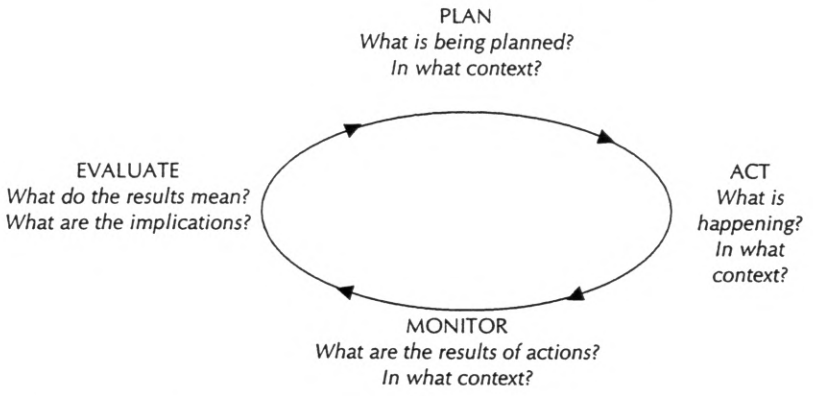
## A. GENERAL FRAMEWORK AND ISSUES

### *1. Conceptual Framework*

We have adopted the adaptive management diagram to outline a basic framework for monitoring and evaluating citizen/agency interactions (see Figure 4). By using this original conceptual diagram and introducing a series of questions designed to provoke thought and discussion, a monitoring and evaluation process begins to take shape.

The framework suggests an iterative process, where information is gathered and considered in stages and contributes to long term learning. There is no checklist for managers to tabulate what they have done (e.g., sent newsletters, invited people to meetings, and so on), nor a quantitative process where results are recorded as percentages or head counts. These traditional institutional approaches to evaluation may be of little benefit in the adaptive management context, where learning and adjusting are essential. Because there is no single formula for success, it is important that a monitoring and evaluation process incorporate discussion that encourages a comprehensive understanding of the situations being evaluated. Such thorough examination will uncover informative patterns across situations, require thoughtful assessment, and thus will contribute to learning.

*Figure 4: Framework for Evaluation in an Adaptive Management Setting*




By design, many of the discussion points suggested in this monitoring and evaluation framework are not questions that can be answered quickly, nor easily quantified. Babbie (1995) described the common problem in evaluation of "measuring the unmeasurable." Others have described this challenge as "the basic paradox of evaluation: that which is most visible, and thus most easily measurable, is rarely the most essential. Conversely, if the essential is not visible, how can we measure it?" (North Central Regional Center for Rural Development, 1995:1). While the issues addressed in an evaluation might be difficult to measure, we do have tools for such situations.

## 2. Key Implementation Considerations

We are proposing a primarily qualitative approach for monitoring and evaluating interactions. This system acknowledges that the content and quality of a process are not only important, but worth noting and examining. Several general principles apply to successful application. First, it is imperative that **agency and citizen representatives collaborate as an *assessment team*** in monitoring and evaluation. It is important to recognize that agencies and citizens sometimes have different goals for interactions. An evaluation conducted only by one of the parties might provide a limited (or even biased) perspective. Also, if an evaluation is carried out interactively among citizens and agency personnel, it can play an important role in relationship building.

Second, **the process is intended to be iterative and cumulative**, meaning that not only must agency personnel monitor what has transpired in a particular situation, but they also need to keep track of information so it can be evaluated over the long term life of the

*Figure 5: Summary of Key Implementation Considerations*

Monitoring and evaluating...

- Involves agency and citizen representatives collaborating on an assessment team;
- Processes are intended to be iterative and cumulative;
- Documentation should be in a descriptive (text) format;
- Documentation needs to provide extensive details about context;
- Information should be recorded through multiple methods.

current and ensuing processes. Third, **documentation should be in a descriptive (text) format** so that interactions, activities, findings, and what was learned can be accounted for and used by all parties. Fourth, **recorded information needs to provide extensive details about *context*.** It should provide the whole story (e.g., what, where, when, how, and why) so that learning can be more accurately transferred to other similar (or dissimilar) conditions and situations. (See Understanding Context, below, for discussion points regarding context.)

Finally, **information should be gathered through multiple methods**, such as discussions with key participants, analysis of written records (e.g., public comments in agency records and newspapers), and group (team) assessment meetings. Depending on the scale of the subject being studied, several related evaluations might take place over an extended period. In such cases, survey methods might be employed to answer some questions and to track changes over time.

## 3. *Tailoring the Monitoring and Evaluation Process*

As discussed in the previous chapter, monitoring and evaluation can occur at different "levels." Evaluators need to be cognizant of the project specific objectives for the situation being studied, as well as the long term goals of citizen/agency interactions, and then determine how to tailor the evaluation accordingly. This allows for some discretion in selecting which discussion points need to be addressed.

In the example used earlier, a situation might be evaluated simply in terms of a single objective being accomplished, such as whether citizens were brought into a decision making process early. By focusing on this specific objective, evaluators could learn what facilitated or impeded its accomplishment. Bringing people in early to a decision making process (after appropriate preparation and planning) can be an admirable objective by itself, but it is also a means for accomplishing larger goals. Thus, the situation could also be evaluated in terms of how this early involvement has contributed to progress towards larger program goals like public acceptance of decisions, building long-term relationships, learning about citizen/agency interactions, or--for citizens--having opportunities to influence decisions. It is this latter case, where the situation is evaluated in broader terms, that may be most useful in the adaptive management context. It allows evaluators to address the three types of monitoring described in the Record of Decision: evaluators can not only see if certain useful means are actually being employed (implementation monitoring), but they can also see if these means are achieving the desired results (effectiveness monitoring), and they can conduct careful examination of the underlying assumptions about those means (validation monitoring).

## 4. *Understanding Situational Context*

> *...the whole situation, background, or environment relevant to some happening or personality (definition of context from Webster's New World Dictionary of the American Language, 1966)*

Before evaluating a specific process, it is important to understand the broad situational context in which that process takes place. Contextual information is useful for several

purposes. First, by discussing and monitoring context, evaluators can raise awareness about the situation and the barriers that may be present. Second, contextual information can be used to help describe details of a single case study. This builds a body of knowledge that is not only useful for stakeholders in that particular situation, but also for others in different settings. Finally, contextual information can help highlight factors that at first did not appear relevant or important.

As the definition quoted above suggests, contextual information should provide as complete a picture as possible, across different dimensions (e.g., political, spatial, temporal), and about the people, history, community, forest, agencies, and resources involved. Evaluators should avoid temptation to compile unidimensional or shallow contextual information, and instead should describe the *whole* situation. Attention to this detail will help build organizational memory--a store of knowledge that can be referred to by all parties for various purposes.

This may not be as difficult as it initially sounds. Most likely, there are existing sources of information from which evaluators can draw (e.g., previous agency reports and public comments). Much information about context can also be derived by considering the differences experienced across settings. For example, Doak (1994) provided useful contextual information about each AMA, such as spatial patterns and boundaries. Still, it is important to continue to address many of the questions presented in this section again and again, as context will change over time.

A wealth of information about each AMA can be gathered by considering what we know about the factors that facilitate or impede citizen/agency interactions. In Chapter III of this report, these factors were outlined in categories affecting interactions on AMAs. They are used again here in Table 4 to organize potential discussion points that could frame an examination of situational context.

*Table 4: Discussion Points for Context*

| | |
|---|---|
| AMA AND LOCAL COMMUNITY CHARACTERISTICS | ▪ Describe the history of the situation. What was it like "before the AMA"?<br>▪ Describe any unique characteristics or assets of the AMA or the associated communities.<br>▪ Describe agency personnel's involvement in the local community as individual citizens.<br>▪ Describe any relevant on-going conflicts in the community. Are there polarized viewpoints regarding the AMA?<br>▪ Describe the relationship(s) of the community(ies) and the forest (e.g., economic relationship). Describe the general level of interest in the AMA. What are community members' primary concerns related to the management of the forest?<br>▪ Describe any contemporary external events that might have affected the situation (e.g., "outside" attempts to stall projects).<br>▪ Do citizens and agency personnel understand the AMA process? |
| AGENCIES AND INSTITUTIONS | ▪ Describe the continuity in agency personnel.<br>▪ Characterize administrative support. Are efforts supported "from above"?<br>▪ Describe incentives and rewards (or disincentives) for personnel to be flexible, creative, or to take risks?<br>▪ Is there top-down pressure for agency personnel to "produce results"?<br>▪ Describe any relevant policy changes that might have affected the situation.<br>▪ Is FACA playing a role? If so, how? |
| HUMAN RESOURCES AND RELATIONSHIPS | ▪ Describe agency personnel's attitudes toward and commitment to citizen/agency interactions (their openness, dedication, willingness to try new things).<br>▪ Describe agency personnel's attitudes about controversy, public input, adaptive management, AMAs, etc.<br>▪ Describe agency personnel's skills, experiences, and knowledge regarding working collaboratively with citizens.<br>▪ Describe the existing relationships among citizens and agency personnel, including citizens' trust of the agencies.<br>▪ Describe citizens in terms of their knowledge, skills, or experiences related to the community, working with agencies, working in collaborative situations, natural resources, etc.<br>▪ What citizen or agency human resources are available? |
| NON-HUMAN RESOURCES | ▪ Describe the funding situation. Has funding been a limiting factor? If so, how?<br>▪ Describe the time available to complete the action being evaluated. Were there time constraints?<br>▪ Describe any other constraints (or enabling factors) encountered. |

## B. A MONITORING AND EVALUATION PROCESS

### *1. What are the Objectives for Interactions?*

Thus far, this study has provided substantial documentation for the goals and characteristics of successful interactions from public involvement research and from AMA materials. These goals and characteristics represent a wide range of broad and specific objectives for citizen/agency interactions. Because they can serve as useful reference points for evaluations, they are listed here again in Table 5. (Readers are encouraged to refer to Chapter IV for a discussion of these goals and characteristics, as well as Chapter III for specific AMA goals.)

*Table 5: Summary of Goals and Characteristics for Successful Citizen/Agency Interactions*

| | |
|---|---|
| GOALS FOR CITIZEN/AGENCY INTERACTIONS | ▪ Improve the quality of decisions (to arrive at decisions that better achieve resource management goals);<br>▪ Come to decisions that enjoy increased public support;<br>▪ Contribute to the building of long-term relationships;<br>▪ Incorporate citizens' ideas and knowledge in decisions;<br>▪ Address the well-being of local communities;<br>▪ Attain AMA land management goals (Meet ROD guidelines for AMA plans and for land management; Discover innovative approaches to land management; Find a balanced way to manage the ecosystem on a sustainable basis; Include community members in monitoring);<br>▪ Learn, innovate, and share; and<br>▪ Provide opportunities for participation, increase and broaden participation, and generate interest. |
| CHARACTERISTICS OR "PRINCIPLES" FOR CITIZEN/AGENCY INTERACTIONS | ▪ Public involvement should be used to gain information about public values and knowledge, identify issues, share concerns, and discuss priorities;<br>▪ Processes should be inclusive and a variety of mechanisms for interacting should be used;<br>▪ Interactions should take place with all relevant and interested parties, including both local and non-local citizens;<br>▪ Processes should be interactive, personal, and sincere;<br>▪ Processes should be innovative and flexible;<br>▪ Interactions should start early and be continuous;<br>▪ Interactions should be carefully designed, with attention to detail and with purposes and end products for participation identified up front;<br>▪ Citizens should be able to see how their contributions are used in decisions;<br>▪ Citizens should be able to see how decisions are made and what information is used in making them;<br>▪ Decisionmakers should participate in processes;<br>▪ Information used should be understandable, current, and reliable;<br>▪ Agency personnel should enter interactions with genuine intentions, and be open, honest, and respectful;<br>▪ Agency personnel should follow through on decisions;<br>▪ Interactions should result in improved understanding of issues and of other people (mutual learning); and<br>▪ Interactions are more meaningful to citizens when they result in a tangible outcome. |

## 2. *Testing the Objectives*

The remainder of this chapter will outline a monitoring and evaluation process that utilizes a series of *discussion points* to *test objectives*. The discussion points were derived from the goals and principles for citizen agency interactions summarized in Table 5. Each of them reflect some broad or specific objective for citizen/agency interactions.

The discussion points are organized around the adaptive management process framework (see Figure 4). Evaluators can determine the appropriate time during a process to consider these discussion points. Generally, the discussion points move from achieving specific objectives in the "plan" and "act" stages of the process, to fulfilling broader objectives for the overall process. The basic issues addressed at each stage are:

| | |
|---|---|
| Plan: | What is being planned? Does it incorporate learning from previous evaluations? |
| Act: | What is happening in terms of programs, process, interactions? |
| Monitor: | What are the results or outcomes? |
| Evaluate: | What do the results of planning, acting, and monitoring mean and what are the implications? |

Note again that the adaptive management process is iterative; it is not linear. If evaluators are testing certain objectives during the planning or acting stages of the process, their findings might indicate that adjustments are needed. Such adjustments are part of the process. Evaluators are encouraged to consider each action and evaluation as part of the adaptive management process, rather than as something done in isolation. Assessing situational context (Table 4) will help bring key findings together.

Because no two evaluation processes will address the identical situation, it is not expected that teams will always consider the same discussion points. As noted above, points should be chosen in part based on the goals or objectives identified for the situation being evaluated. What is important is that the assessment team documents and learns from monitoring and evaluating actions and incorporates these lessons back into the adaptive process.

## 3. *Monitoring and Evaluation Discussion Points*

### ➔ *Plan*

Discussion points under "Plan" focus on the details of the citizen/agency interactions of interest. They tend to address specific early actions that provide the means to achieving larger goals. They also help parties understand planning objectives and serve as a check to determine if the "right" problem is being addressed. Discussion points are written in the present tense because they can be considered during an activity.

### ➔ *Act*

Discussion points under "Act" also focus on the details of interactions. They provide feedback at a time when the need for feedback is frequently overlooked. Under the adaptive management concept, however, assessing actions in the early stages allows for timely adjustments. These discussion points also ask for detailed information about the situation to help further describe the context in which these actions were taken.

### ➔ *Monitor*

"Monitor" discussion points ask evaluators to describe the results of citizen/agency interactions. This information can contribute to long-term learning; it can be used to make adjustments in subsequent actions. Monitor discussion points are based on many of the short-term objectives that have been identified in public involvement literature or by the AMAs.

### ➔ *Evaluate*

Discussion points under "Evaluate" address broad, long-term goals of citizen/agency interactions and of adaptive management. They provide an opportunity for evaluators to reflect on what was learned and on how contextual factors might have played a role. They also ask evaluators to draw out lessons that might be useful for future interactions.

## "Plan" Discussion Points

- What are the objectives for the project or plan?
- What is the purpose for involving citizens? What is the expected outcome of this involvement? How has this information been communicated to citizens?
- How well are agency personnel identifying and recognizing the legitimacy of public values, ideas?
- How do plans reflect the principles that seem to characterize successful citizen/agency interactions? (e.g., are process that have been planned designed to be interactive?)
- What innovative things are being planned? Why are they considered innovative?
- How well are the inputs to planning identified in the adaptive management process—goals, knowledge, technology, inventory (see Figure 1)—being used? For example:
- How clearly are goals articulated?
- To what extent is the existing stock of knowledge held by stakeholders or personnel, public input documents, or public involvement research being tapped?
- To what degree are agency personnel using others' experiences? Is information being shared by other AMAs?
- How is learning gained in past actions and evaluations being incorporated?
- To what degree is the public being brought in from the beginning, being involved in early stages of problem identification and goal setting?
- Are stakeholders encouraged to discuss issues, priorities, concerns?

## "ACT" DISCUSSION POINTS (IMPLEMENTATION)

- What activities have been undertaken thus far? Do they fit the planning objectives? To what extent are ideas from plans being used? Modified?
- What are the details of the actions being evaluated? For example:
  - What processes are being used?
  - When and where was an event held?
  - How was a meeting conducted?
  - What written documents or other communication materials were used? Describe them.
  - In what timeframe did actions occur?
  - What were the key topics around which interactions took place?
- Characterize how the agency is providing information. Is information being presented to the public clearly written, void of rhetoric, and of high quality? Are agency personnel using stories, examples, graphics, etc. to communicate information?
- How well are agency personnel and citizens exchanging information? To what extent do agency personnel accept the legitimacy of citizens' inputs? To what extent do citizens view agency information as credible?
- Describe how genuine opportunities for interaction and citizen input are being created and how participation is being encouraged.
- Is the public continuously involved in a meaningful role?
- Are inclusive interaction processes being used? Describe the variety of participation mechanisms being used.
- Describe the processes in terms of innovation and flexibility.
- To what extent are interactive processes being employed? Is there two way communication and personal interaction? Are parties perceived as being sincere?
- How genuine are personnel in their interactions with citizens? Are they honest, open, and respectful? Are they doing more than simply trying to "educate" people?
- Does a decisionmaker have a regular presence at events?
- How convenient are meeting times and locations?
- To what extent are personnel giving attention to details that are important to citizens (organization, distribution of materials in advance, adequate responses to questions etc.)?
- To what extent are decisions being based on scientific data, historical experience, local knowledge, long-term goals, and public values, concerns, and priorities?
- How transparent are decisions? Do people understand how the decisions are being made? Can they see where their input is being utilized or considered?

## "MONITOR" DISCUSSION POINTS

- To what extent did actions generate interest in the AMA?
- Did the level of citizen participation change? In what forums?
- Did the breadth of participation improve? How?
- Did personal interactions increase? Among what parties? In what settings?
- Describe improvements or problems in communication.
- To what extent did interactions improve understanding among citizens and between citizens and agency personnel?
- Describe improvements in or barriers to citizen and agency understanding of resource issues.
- Describe changes in how conflict arose or was handled.
- Describe the tangible outcome(s) resulting from interactions. To what extent are agency personnel (or citizens, if applicable) following through?

## "Evaluate" Discussion Points

- To what extent were citizens' ideas and knowledge incorporated in decisions? How did their participation have an effect on decisions?
- Did actions contribute to the long-term development of relationships? How? Describe changes in communication style, trust, and credibility among participants.
- To what extent did decisions enjoy increased public support?
- To what extent did decisions result in improved resource management? How did actions contribute to meeting ROD guidelines, to discovering innovative land management approaches, or to our understanding of how to manage on an ecosystem basis?
- How was the well-being of local communities considered in the decision making process? To what extent did actions contribute to community well-being?
- How did contextual factors play a role? What barriers still exist or need to be resolved?
- What did participants learn about how to improve citizen/agency interactions? To what extent are experiences compared with others', or with their own earlier experiences?
- What evidence is there of learning, innovation, sharing, and flexibility? What new knowledge did actions lead to? How was this knowledge shared and applied elsewhere?
- Were there surprises? (e.g., were means utilized that did not appear to be consistent with those that would produce successful interactions, yet they did? Or, were means used that were expected to work, but did not have the intended effect?)
- Was it possible to incorporate new information along the way? How? What adjustments were made during the process?
- Were there disagreements among evaluators in trying to answer some questions? What were the disagreements about? Were differences respected? What implications does this have for how different people viewed the process and for future efforts?
- What can be learned from these experiences and subsequently shared and fed back into the process?

## C. CONCLUSION

The set of discussion points presented above are not intended to be final or exhaustive. As we learn more about citizen/agency interactions, we would expect that this monitoring and evaluation framework and its discussion points would continue to be adjusted. Many of the points represent working hypotheses about certain attributes of citizen/agency interactions, or the effects of interactions. Evaluations can help test these hypotheses and may eventually challenge the validity of some of them.

We recognize that this framework--using a question and discussion format--involves a substantial commitment of effort over an extended period of time. It has been constructed with the understanding that there is no quick fix; there is no short cut to effective long-term citizen/agency interactions. It takes considerable time, effort, and allowance for mistakes to build lasting, durable relationships. At least two other elements are also integral requirements: a commensurate amount of organizational support and a willing public.

The next logical step arising from this work would be to test the suitability of the framework and discussion points developed here in a real world setting. This could be done with small groups of citizens and agency personnel, applying the framework and questions to selected adaptive management situations. As with any interactive system, an effective evaluation process will emerge only through thoughtful use and adaptation by stakeholders.

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