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Public Involvement Processes and Methodologies: An Analysis

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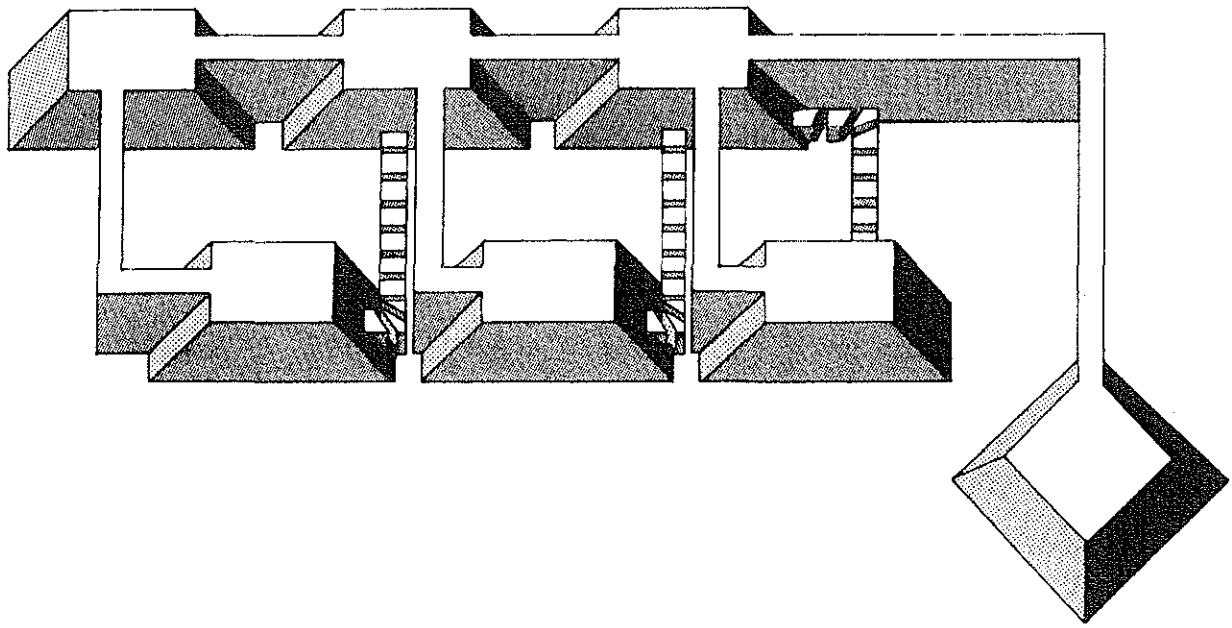

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PREFACE

This report explores some sensitive or critical areas in public involvement. A 1972 RF&D workshop on public involvement identified a series of issues requiring research and analysis. A subsequent PNW study "Public Involvement and the Forest Service", (Hendee 1973) addressed many of these issues. This study assignment by the Chief's Office was to focus on problems and issues not covered by the PNW study.

Since 1973, much progress in the understanding and application of public involvement procedures has been made in the Forest Service as well as in other public agencies. Today public involvement is an institutionalized program. In spite of numerous directives and references, including the 1977 Forest Service I&I Handbook, many uncertainties remain unresolved and, sometimes, we commit errors in strategies or execution. The land manager is never really sure whether a specific decision topic warrants the involvement of the public or not and, even more disturbing to him, which of the many public involvement processes is the most appropriate for the specific situation at hand. He is furthermore disturbed about his ability to gain participation by a "representative" group of the public and how to judge what is representative. And finally, after he has made a decision for public participation, he never knows whether the decision is a better one because of broad inovlvement, whether the public really supports the decision in the short and long run, whether the public thinks better of

the Forest Service because of its participation, or whether the decision will tumble down upon him and he will find himself in court in spite of his best efforts in public involvement.

This report will not allay these uncertainties. It does, however, attempt to explore the factors underlying these uncertainties so that understanding them may contribute to better public involvement management in the Forest Service.

While primarily designed for the Offices of Information in the Chief's Office and in the field, some of the material contained in this report may be suitably communicated to the land manager and other practitioners in forms of training aids, additions to the Handbook, manuals or during lectures and workshops on public involvement.

The authors consider this a working document rather than a definitive reference document, and invite inquires or discussions on any of the topics covered.

CHAPTER I

OBJECTIVES AND CONSTRAINTS

"Citizen power is what public involvement is all about--power to make the government do what the citizen wants it to do. In America, establishing effective citizen power is a basic, constitutionally chartered idea of our governmental system." (Davis 1975)

The fundamental precept of public involvement is therefore that: "...those affected by public decisions should have opportunity to affect these decisions. If a plan is not viewed as relevant or desired by a significant portion of those who will be affected by it, the likelihood of its being implemented is correspondingly reduced." (Borton 1970)

The objectives of public involvement listed on page iv of the Guide to Public Involvement in Decision Making, Forest Service 1974, can be rephrased as having four specific purposes:

1. To expand public understanding of natural resource planning needs, potentials, and available alternatives.

2. To solicit information from the various publics regarding their perceptions of important problems and needs requiring a solution.

3. To obtain reaction from the affected publics to Forest Service plans, proposals and/or recommendations and their views of the relative

priorities with regard to the allocation of limited public funds and resources.

4. To create public support for the solutions and/or recommendations emerging from this joint planning effort and reduce the probability of prolonged litigations.

Two further objectives emerge from the above four, but are not explicitly stated in the Guide:

5. To develop trust on the part of the public in agency-planning personnel and in their competence.
6. To secure commitment by the participants to the final plan evolved from the joint effort.

Yukubousky (1973) proposes these additional objectives for the public involvement process:

1. It allows supplementation of the planning staff's resources through the utilization of the time, abilities and expertise of public participants.
2. It will tend to improve the planning product by the inclusion of a larger circle of inputs and technical expertise.
3. It meets existing legal requirements.

Manheim (1971) categorizes community interaction objectives in a different format:

1. Responsibility for objectives
    a. establish and maintain agency and process legitimacy
    b. reexamine and maintain validity of earlier decisions
2. Responsiveness
    a. form new concepts
    b. establish facts
    c. detect and anticipate community problems
    d. find solutions
    e. explore values
3. Effectiveness
    a. establish and maintain credibility
    b. establish and maintain communication channels
    c. search for consensus
    d. depolarize interests

These objectives are explained in considerable detail in the Manheim report.

Finally Warner (1971) indicates the importance legislators and legislatures at the federal, state and local levels place on public involvement because it assures that the interests of their constituent publics are represented and included in the planning/decision process. Since legislators must integrate technical demands and potentials with the relevant social requisites,

planning recommendations deriving from a combination of technical experts and their publics provide much more realistic decision bases for legislatures than the singular emphasis on traditional "expert" analysis.

In a later section of this paper we will discuss the stratification of participants in public involvement processes with public agencies. The emphasis is in understanding the pools of participants available to assist in "enlarging an agency's staff" as Warner suggests. In a general survey of voluntary participative action, David Smith of the Center for a Voluntary Society (1972) differentiates between five types of volunteers and their action orientation. These are:

1. Service-oriented volunteerism. These participants focus on providing free service to Red Cross, hospitals and similar public service agencies.
2. Public issue-oriented or cause-oriented advocacy volunteerism. These volunteers are interested in such causes as consumerism, environmental protection, and other social-economic or even political causes. They are generally deeply committed to the issue in general, and to a particular point of view with regard to that issue.
3. Consummatory or self expressive volunteerism. Participants in this action area are interested in self expression in such areas as recreation, art, hobbies, or social events.
4. Occupational and economic self interest volunteerism. At the root of this type of voluntary action are the economic and/or occupational interests of the participants. This category includes voluntary members of professional associations, business associations, unions, and similar organizations.

5. Philanthropic or fund raising volunteerism. Participants in this activity strive to raise funds for the American Friends, United Funds, war rehabilitiation and other organizations.

Volunteers for public involvement activities with the Forest Service would obviously stem from groups 2 (Sierra Club, Isaac Walton League, etc.) and 4 (timber industry associations, range, recreation and other commercial associations), and a more limited number of group 3 participants.

Given the above high potential interest and participant resources in public involvement, what are some of the macro-technical constraints? Many potential participants are apparently turned away from public involvement by the belief expressed by Jeanne O. Nienaber in her case study of the U.S. Forest Service (1973) that "there exist real limitations to the capability of the bureaucracy (Forest Service) to handle innovation, challenges to its procedures, and conflict situations." This statement reiterates the widely held public perception that in our society major innovations and conflicts are not easily assimilated by the body politic as a whole and cautious innovation is a more representative guiding principle of our society. When projected onto a specific agency, such attitudes not only weaken the voluntary participation of that agency but also the trust placed in the outcomes and decision making of that agency.

Another general technical constraint to public involvement is the capability of the Forest Service to collect, absorb, interpret, respond to and feed back information. Shannon's Tenth Theorem in control theory states that the

performance capability of a regulator is limited by the capacity of the feedback channel. (Shannon 1949). If the Forest Service is a regulatory apparatus, then its effectiveness is limited by the amount of information that we can deal with and effectively integrate into our decision making process.

Some researchers in the field of public involvement (Hendee, et.al., non-dated) suggest that necessary characteristics of the public involvement process are its explicitness and versatility and also the requirement that the outcome be traceable to its sources. An independent second party should thus be able to identify the sources as well as the modes in which they were utilized and by which they contributed to the final agency decision. This characteristic, if used as a rigorous selection criterion for public involvement processes would severely limit the number of processes to those in which inputs can be clearly segregated and identified. Less formalized input means such as workshops and group sessions would therefore generally not qualify.

The final severe constraints to the public involvement process are that it is a slow, often tedious, time and resources consuming and sometimes stale-mating. Existing conflicts between the participants are often not resolved and sometimes exacerbated. It is anything but efficient in the short run. As one researcher has stated: "all parties to the process must recognize that it is impossible to maximize both efficiency and democracy. The preservation of some degree of freedom in our complex society is dependent on working out a method of optimizing these conflicting values." (Folkman 1973)

But in spite of the difficulties and constraints operating on public involvement, it is a growing phenomenon in our public affairs. It has expanded not only in numbers of participants but also in emphasis and degree of demand for participation by the public. As such, it behooves us to continue to learn as much about the process as the experience of others, in addition to our own, can teach us and to adopt those procedures which will, in the long run, yield the greatest benefits to the natural resource environment and to society. Assistant Secretary of Agriculture, Malcolm Cutler concludes in his thesis (1972): "The Forest Service should be glad that more persons are interested in the National Forests, and that they are becoming more effective in expressing their interest. Involved citizens are potential supporters of the agency's programs. More importantly, involved citizens are assuming a personal responsibility for renewing and preserving our environmental heritage, and in the process restoring and strengthening that faith of individuals in themselves which is the source of national direction and generosity of deed."

Cutler quotes Elliott L. Richardson in the Congressional Record of April 21, 1972: "The hard choices, in the end, are bound to depend on some combination of values and instincts -- and, indeed, it is precisely because the content of choice cannot be reduced to a mathematical equation that we need the political forum to reach the final, most difficult decisions."

In the remainder of this paper we will summarize some of the newer ideas in public involvement processes so that "these most difficult decisions" might be facilitated.

CHAPTER II

DECISION MAKING AND DECISION FORMATION

The role of the public in the Forest Service's planning decision processes has so far not been clearly spelled out. When Public Involvement first became Forest Service policy, the question was probably not even raised. The stated purpose of the policy was to "make our management processes visible and our responsible people accessible." (Forest Service Manual 1970). Henceforth the public could walk in at will through wide open doors and watch its government in live action. In addition to the new open door policy the volume of information directed at the public was to be greatly increased. Advise and consent would be an apt description of public involvement as seen from the agency's point of view.

In retrospect it is evident that the public was unwilling to accept the role in which it was being cast. Especially segments of the public that felt they had long been overlooked by the Forest Service, perceived the role assigned to them as much too passive. In their interpretation, the National Environmental Policy Act (1969) gave them a direct say in the making of decisions. To a degree they made participation conditional on their sharing in decision making.

Even if it were advisable to do so, it is however outside the power of the Forest Service to admit the public into the role of co-decision makers, since

> ".... this authority and this responsibility cannot <u>legally</u> be transferred by the agency to any segment of the public, nor can it be shared." (T. C. Nelson 1974).

The injunction implicit in the Deputy Chief's statement remains as valid today as it was in 1974 when he made it. Its abandonment would imply a fundamental change in our system of government. Moreover, as the Deputy Chief's namesake explained a few years earlier, the principle is binding all the way down the line:

> "In the final analysis the land manager ... has the responsibility to decide to lengthen a road because the landscape is better served. He is required to make the judgement to require a more costly logging system, logging layout, or silvicultural system, protect soil or emphasize landscape aesthetics." (M. M. Nelson 1974).

Forest Service line officers are fully aware that the burden of making decisions is on them alone. Their uncertainty is about where to fit the public into the decision process. Such phrases as "Public Involvement in Decision Making" are not calculated to relieve this uncertainty. At a minimum, it leaves it open whether they are supposed to be constrained by the public's demands or desires or merely influenced by them. Influence is not binding, a constraint is; in light of other considerations, influence can be set aside.

The problem is not confined to the Forest Service or to the area of public involvement in governmental agencies. At a time when such notions as participative management, group decision making and industrial democracy have come into vogue, managers in industry are hard pressed to give these notions substance.

In a recently published instructional course for managers, its author (Homa, 1971) sets up a distinction between decision making and decision formation which may be helpful in this respect. Decision formation, the first phase, of the decision process, is social in nature, with two or more people interacting. In the organizational setting this interaction is initiated by the decision maker approaching a number of individuals to sound out their views and solicit their advice. It is understood by them that their inputs will be noted and considered but not necessarily adopted. By contrast, decision making is a one-person, an individual, and a very taxing activity. All of it goes on in the decision makers mind. The decision itself is a reflection of the quality of his judgement. That's why he is there. That's what he is paid for.

To illustrate decision formation, Homa describes the way in which a manager, intent on hiring a new subordinate manager, would involve other executives. Typically he would ask a number of them to interview the candidates. Then he might call them together or see them individually to discuss each candidate and ask their recommendations on which one to hire. Suppose that the group is unanimously in favor of one particular candidate, but the manager disagrees and does not want him or her.

"What happens in such group situations - and it is necessary that this happens - is that any number of people can screen candidates and give their opinions, thus participating in forming a decision, which is preliminary to making a decision. But the decision to appoint Smith or Jones will be made by (his prospective) manager himself. No doubt he can be swayed by this opinion or that, but whatever decision results, it is he who made it, and it is he who

will be held accountable for the consequences."

From this example, Forest Service decision makers will readily conclude that they go through the process of decision formation whenever they consult with their staffs. It would never occur to them that in doing so they are in any way abdicating or sharing their decision making authority, or that they are spreading the burden of responsibility. There is no good reason why public involvement should not also be treated as part of decision formation, even though consulting with the public is not strictly comparable to consulting with one's staff. Some of the main differences call for a brief discussion.

(a) Unlike the staff the public is not in any sense under the decision makers control. Staff members are well aware that, as their superior, the decision maker has the right to ignore or reject their inputs. Rejecting the public's input on the other hand, is now linked with the obligation to explain the reasons for rejection.

(b) Likewise, members of the staff can be instructed by their superior to go back and gather more information. The validity of the information they provide can be questioned, and they can even be censored for being inadequately prepared. From the public, the decision maker has to accept whatever is presented to him. No matter how much he disagrees with what he hears, he cannot - or should not - argue.

(c) It is appropriate, and indeed necessary, for staff to be provided with technical details from all the relevant disciplines as well as being familiarized with all the constraints to which the ultimate decision has to conform. Overwhelming the public with information at this level is more likely to cause resentment. In addition the decision maker exposes himself to the accusation of trying to foreclose on

free expression by erecting artificial barriers to communication.

(d) In the course of decision formation involving his staff, the line officer is quite often faced with conflicting views or conflicting information. While it is true that sorting out and adjudicating between these views is already part of decision making, staff members are often aware of their clashing views, and their conflicts tend to become personal. To preserve the cohesion among his team, the decision maker is well advised to attempt resolving the conflict and restoring amicable relations. When applied to the participating public, this approach is not merely ineffective but counterproductive. Ineffective, because conflicts between segments of the public are backed by strong emotional undercurrents. Counterproductive because if decision formation does not expose divergent views in their full array, it misses its purpose.

The role of the public in the decision process becomes still clearer if we consider the kinds of input that should be expected from the decision maker's staff and from the public respectively. These contributions are fundamentally different.

Staff is there to keep the decision maker updated on the latest developments in their respective fields, and to help him determine how the available knowledge bears on the various techno-economic issues he will have to consider when drafting his decision. He needs this to assess the effects his decision will have on timber yield, wildlife, watershed, soil erosion, recreational siting, landscaping, community employment.

Any of the above type of information supplied by the public is of course useful, but should be regarded as a bonus. Rather, the public should be looked upon as a unique source of diverse, contending and often incompatible views reflecting equally contending and incompatible interest and value systems. Without awareness of these views the decision maker will not be prepared to cope with adverse reactions to his decisions, which under most circumstances are sure to arise. In his address to Forest Supervisors, Behan (1970) stressed the para-political sensibilities decision makers in the Forest Service now have to develop. And para-politicians, like politicians, are bound to fail unless they keep abrest of what moves every segment of their publics.

CHAPTER III

A STRATEGY FOR INTENSIFIED PUBLIC INVOLVEMENT

As used here, the term strategy is a predesigned plan of action, each element of which is conceived to advance a given effort toward a specified objective. Some form of strategy guides every public involvement effort, though it is rarely made explicit. Furthermore, such strategies, while they fit the definition, are, as a rule, specific to a particular issue, a particular decision maker, and a particular situation.

In what is to follow, we have developed a model of a generalized public involvement strategy, with each step explicitly described. The model is shown in the form of a flow chart in Fig. 1 . This flow chart can also serve as a check list (see Table 1) to assure that no step has been omitted. No doubt the model will undergo modifications, over time and individual decision makers may also find it necessary to adapt it to their own needs.

One of the basic assumptions we have made in building the model is that public involvement is, or should be, an ongoing process. In practice this means that Forest Service decision makers should continually report to the public on routine decisions and how they are working out. They should also promptly acknowledge and respond to spontaneous inputs from the public whenever these are received.

From time to time, however, issues come up which, in the decision maker's judgement, require more extensive public participation and a greater

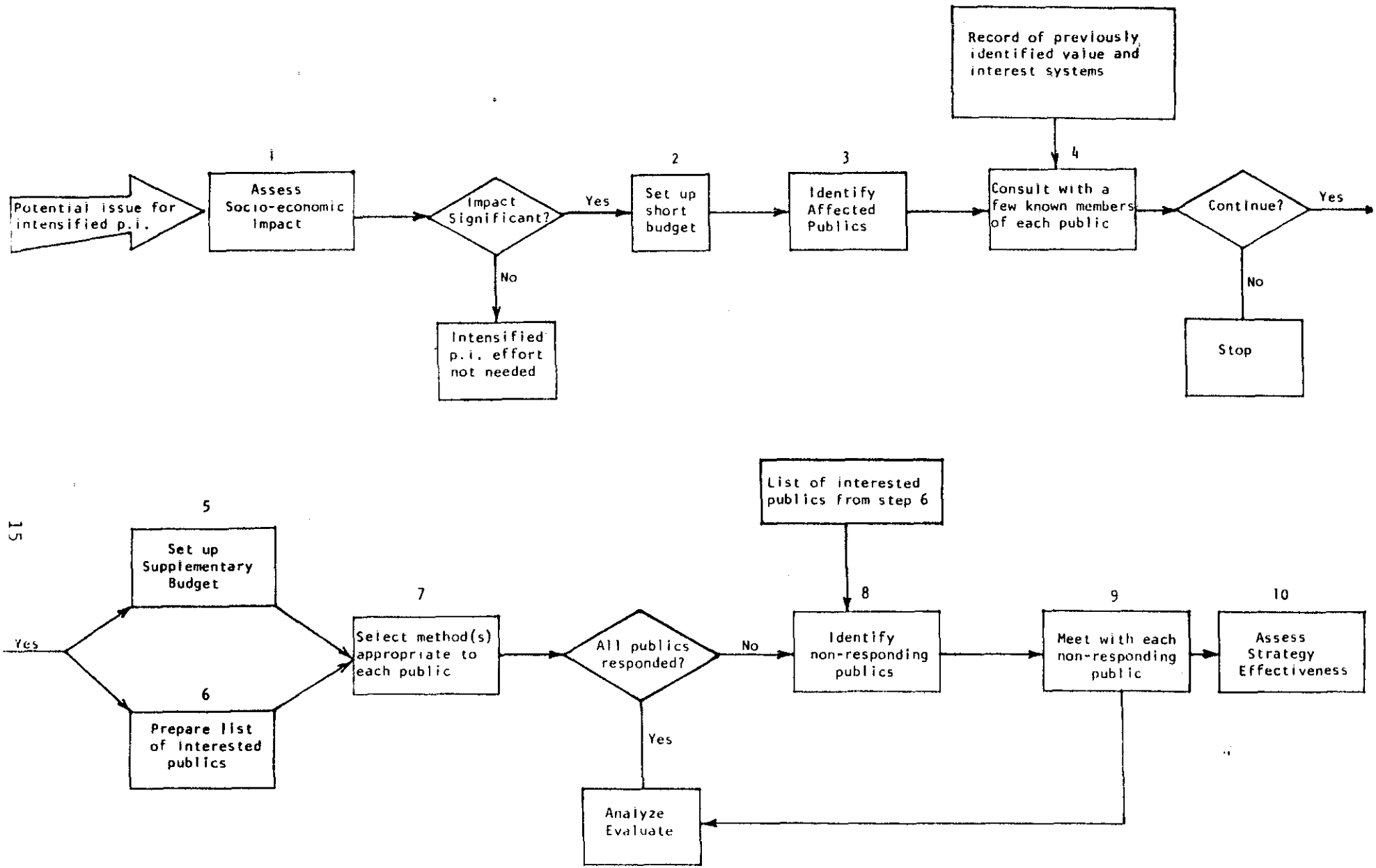


Figure 1 - Strategy flowchart for intensified public involvement

volume of public input. Taking into account the considerable costs at stake, the first, and in some respects the most important, strategic decision is whether or not to mount an intensified effort. The well founded caution against overworking the public (Hendee et al. n. d.) is relevant here.

The sequentially numbered strategy steps in the flow chart (Fig. 1) are discussed below.

1. Pre-assess socio-economic impact

To determine if the issue merits an intensified public involvement effort, the model proposes a preliminary test. This consists of a reasonably detailed assessment of the anticipated social and economic impacts of any decision that might ultimately result.

Although we assume the decision maker has a sense that the issue is socially and politically significant, this may not in fact turn out to be the case. In any event, the proposed analysis will enable him to plan his public involvement effort with increased confidence.

2. Set up public involvement budget

If the assessment supports the decision maker's initial judgement a short budget should be set up for the initial phase - steps 3 and 4 of the flow chart. Only relatively small amounts will be needed if all the required information can be obtained from a small number of informants. The reasons for a possible curtailment of the effort will be explained in step 4.

3. Identify affected publics.

The model next provides for identifying the segments of the public likely to be impacted; it does not take for granted that those affected will also be interested. Further affected publics are likely to be added upon completion of the next stage.

The basic guideline for identifying affected groups should be their presumed value and interest systems which will lead them to favor certain solutions as against others. The main purpose of this step is to get as comprehensive a listing as possible of the groups subscribing to the various value systems. The lists will not, of course, be the same for every kind of issue, and will therefore have to be constructed anew each time the strategy model is applied. After each intensified public involvement effort the list should be revised, updated and stored. This will reduce the effort necessary to identify affected segments of the public on successive occasions.

4. Consult known members of affected publics.

Informal contacts are next proposed with a few known members of each affected public to determine which of these publics will also be interested enough to make them likely participants in decision formation. Another outcome is a more comprehensive list of affected publics, some of which should again be informally approached.

In some instances this may prove sufficient to supply decision makers with all they need to know about public sentiment on the given issue. If so, the intensified public involvement effort may well end here. The risk attached to terminating at this point is that some segment of the public with strong

and distinct views may inadvertently have been missed.

5. Set up supplementary budget

Continuing the strategy requires alloting additional resources. Although some idea about the relative costs of different techniques for enlisting public participation are shown in Appendix A , cost alone should not be used as the only criterion of selecting one method as against another.

6. Prepare index of interested publics

We have underscored the word "interested" to differentiate between those publics who are affected and those who are likely to actively participate. As a rule, a definitive list of those whose participation is virtually assured will result from the informal contacts with a few respondents described under step 4 above. Completion of this list cannot be entirely delegated because of the danger of deliberate or inadvertent consorship. A measure of self discipline is required to avoid omitting groups or individuals whose views are discomforting or contrary.

7. Select method(s) appropriate to each public

The list of interested publics provides the basis for the key component of the strategy: Selecting the combination of technique(s) most suited to the identified segments of the public. (See Appendix A).

Initially this should be done regardless of other considerations. In the process of matching techniques to publics the decision maker and his staff will get a better "feel" for these publics, a valuable exercise in itself. To actually implement a different method for each public may be too costly;

a particular method may be infeasible for a number of reasons; the required skills or special resources may be unavailable. Nevertheless, after the trimming is done, only rarely will one technique be found to suffice. This is very different from the common practice of trying to find the "one best" technique to fit everybody. (In chapter VII we have reviewed some of the many factors or variables that have to be considered in assessing the suitability of public involvement methods.)

While the methods to be used are being chosen, it is important that the objective of the strategy be kept prominently in view. To repeat once more, this objective is to provide the decision maker with as comprehensive a survey as possible of the total spread of views on the issue.

The effectiveness of the strategy in meeting the objective will increase with repeated applications. For the first few times round it must be expected, however, that one or several of the affected publics will fail to respond. It is not uncommon for a group or an individual to recognize that its vital interest has been passed over after the decision has already been made. Alternatively, a public based at some distance from the focus of decision may find that it is too late to intervene.

8. Identify non-responding publics

The following partial analysis of incoming responses should be made to determine which segments of the public have not been heard from, despite expectations:

(i) Develop a coding system for the interested publics listed under step 6 (page 18)

(ii) Each incoming response is likely to contain clues suggesting for which segment of the public the respondent claims to speak. On the basis of these clues, assign the corresponding code.

(iii) Make a tally of the number of responses for each interested public.

The tally will show which publics are not represented at all, as well as those whose views are represented inadequately.

9. Personal mission to non-responding publics

It now is up to the decision maker to go on a personal "diplomatic" mission to each non-responding public. The purpose of these missions is to find out what the given public thinks and feels about the issue. The decision maker is there to listen not to negotiate or persuade.

Such personal approaches need not be confined to the above purpose. They can, and should, be used at any time a decision maker needs additional input from any public. There is no substitute for face to face contact to remove actual or potential misunderstandings.

10. Assess effectiveness of strategy

There is one preemptive measure of the above strategy's effectiveness. It is the adequacy with which the decision maker will be able to respond to any segment of the public levelling criticisms against his final decision. Assessments of how well the strategy has worked must therefore be delayed until some time after the decision has been made and become known.

Because the lag from the end of the intensified public involvement effort may be considerable, it is advisable to document the progress of the strategy as it is being implemented.

The decision maker's own impressions as well as those of his staff, gathered on completion of each step, should definitely be included in the documentation. They are important feedback mechanisms for raising the effectiveness of the strategy when it comes to be used again.

Table 1

STRATEGY APPLICATION CHECKLIST

A. If need for intensified public involvement is in doubt

1. Has socio-economic impact of issue been assessed? _____

B. If need for intensified public involvement has been established

2. Has a short budget been set up? _____

3. Have the affected publics been identified? _____

4. Have known members of affected publics been consulted? _____

C. If greater volume of input from public is required

5. Has a supplementary budget been set up? _____

6. Has a list been prepared of interested publics? _____

7. Have public involvement methods been selected to fit each identified interested public? _____

8. Has a partial analysis been made to identify non-responding publics? _____

9. Has a personal approach been made to each non-responding public? _____

D. On completion of the intensified public involvement effort

10a. Has application of above strategy been documented? _____

b. Has strategy been assessed for effectiveness? _____

CHAPTER IV

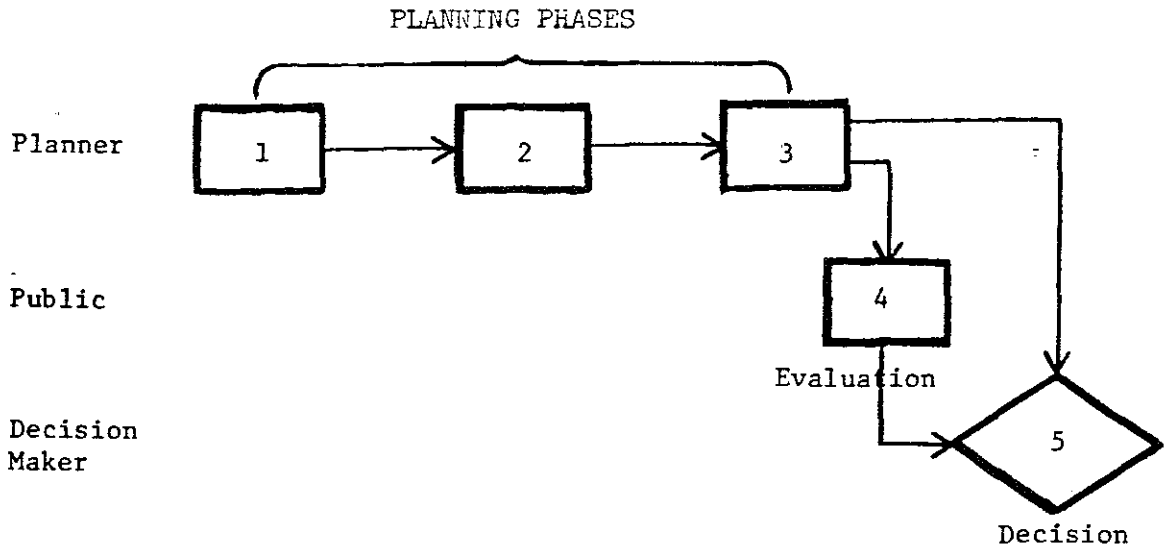
INTEGRATING PUBLIC INVOLVEMENT WITH PLANNING

Under the Forest Service's public involvement policy, the public, or more precisely the publics, are added as a source of inputs to the decision maker and must be given full consideration by him. But neither the policy nor any other directives or instructions of the Forest Service prescribe the structuring of the public involvement process. In this sense the public involvement process clearly differs from the planning process which has achieved a high level of formalization.

A decision maker might adopt one of many strategies to give the public a voice in decision formation. The public should, however, understand that it is participating only in the decision formation stage and not in the decision making stage. In the Forest Service the decision is left up to the line officer in charge of the particular plan. Responsibility for a decision cannot be shared with members of the public; they function only as added inputs on which the decision maker will base his final decision.

For purposes of this discussion the planning process is divided into three phases labeled 1, 2, and 3 respectively: preplanning, plan formulation and plan evaluation.

The first model incorporating public involvement does not differ much from the traditional planning model without public involvement. The planners proceed through the planning process and present the final result to both the decision maker and the public.

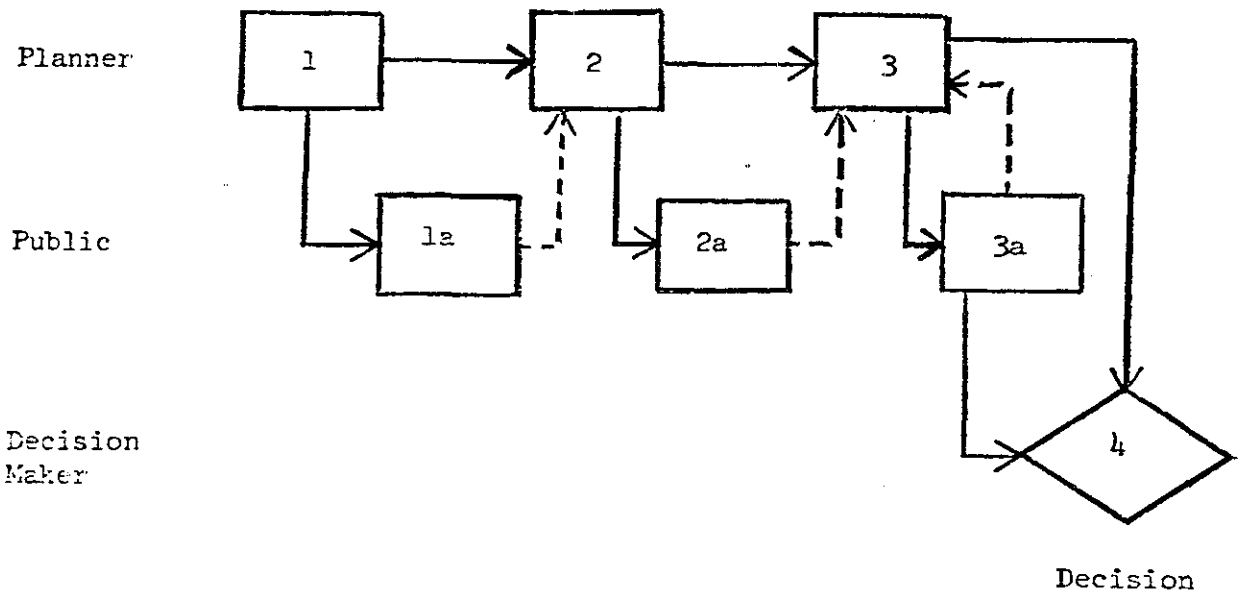


Model 1

A public involvement event may be held at the point where alternatives are presented and public reaction is registered. The public has no say in formulating the alternatives but merely reacts to proposals, expressing agreement or criticism. Comments are directed to the decision maker and not to the planners.

Since public involvement occurs so late in this process, individuals or groups are not given much time to design their own alternatives. This is likely to deprive the Forest Service of fully understanding differing public needs. It may thus precipitate a situation where the public turns down Forest Service plans outright. Public involvement in this model looks like an afterthought and not a genuine part of the decision formation process.

The second model is similar to the first one. The planners proceed with the planning process independently of inputs from the public but they provide information to the public after each phase of the process. While the public receives information earlier than in model 1, planners begin and, if necessary, complete the next phase without waiting for public comments.

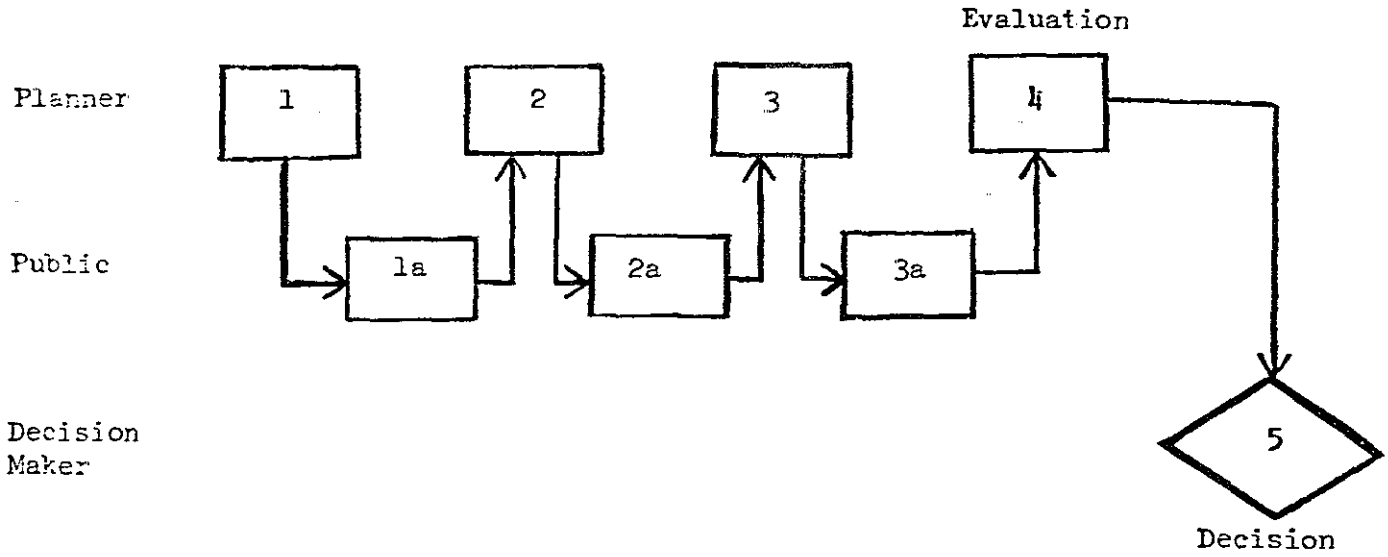


Model 2

They do consider the public's input, but the degree to which they take it into account is up to the planner's discretion.

This model leaves options in that planning can proceed either more like model 1 or more like model 3.

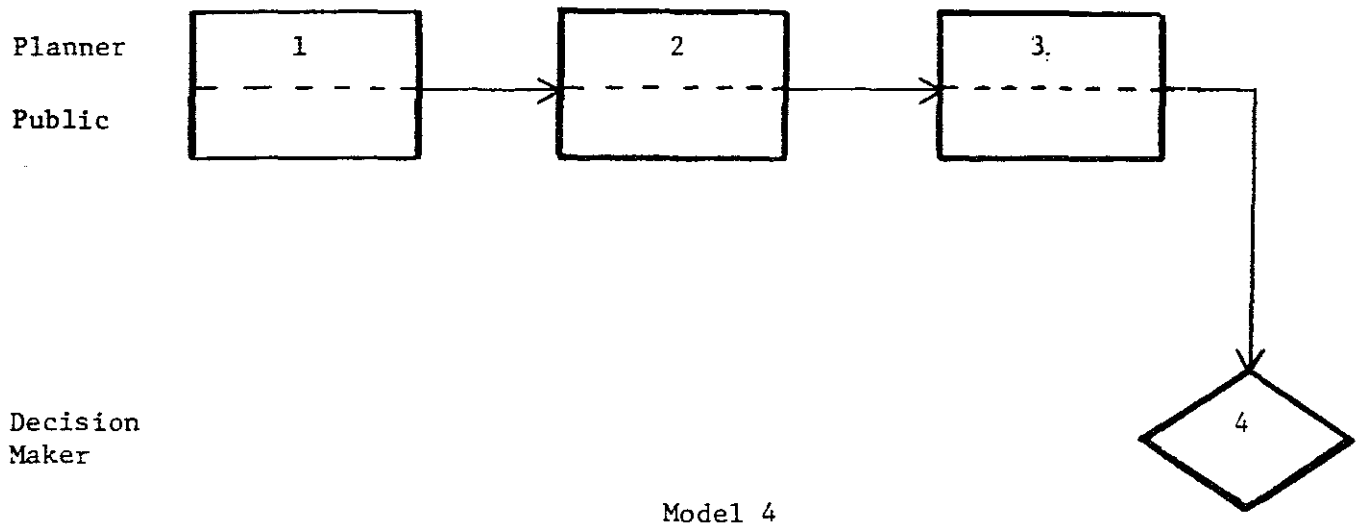
The third model goes further toward integrating public involvement with planning. After completion of each stage, information is presented to the public. Work on the next stage of planning is not commenced until the public has had a chance to register its comments and make proposals.



Model 3

Apart from affording the public adequate time to present new data, it also enables it to devise and put forward its own suggestions and alternatives.

The fourth model integrates the public and the planners into a joint planning team from the start. Representative members of the various affected interests, and possibly members of the general public participate as full members of the planning staff, contributing their unique viewpoints to be considered in formulating alternatives.



Model 4

This structure precludes large scale public involvement and is usually carried out by a selected group of volunteers who have the trust of the rest of the public. Every effort is made to balance the group, thus making it representative of the widest possible spectrum of views.

Although this model is the ultimate step in public involvement, it requires a radical revision of the present planning procedure. Such a change is costly, and presents potentially difficult organizational problems. It has, however, been successful in certain areas where the public is sufficiently committed to a long term working arrangement.

The models described above are all examples of commonly used ways to involve the public in planning. This does not mean, however, that only these models should be followed. Different models can be used in different planning phases, depending on the scope of the plan and on the

problems encountered. It would be preferable for the Public Involvement staff to allow the mixing of these and other models according to planning needs in order to gain greater flexibility in its public involvement effort.

CHAPTER V

CRITICAL PROBLEMS IN PUBLIC INVOLVEMENT

Problems occur during the planning process (we call them critical aspects) which may need special attention. We have placed these critical aspects in three categories:

Meeting legal requirements

Conflict potential

Conduct of Public Involvement

Meeting Legal Requirements

1. Since standing in court can be gained on the basis of non-economic criteria, give equal consideration to non-economic data such as aesthetics. (Sierra Club v. Morton, U.S.D.C., N. Calif. 10/72).

2. When presenting alternatives avoid presenting only two extremes. Alternately, presenting a few alternatives only at one end of the full range creates a superficial variation. This naturally alienates those publics whose interests are dominantly at the other end of the spectrum.

There is also an important legal reason for taking care to cover all possible plans: Courts have ruled against agencies which did not adequately discuss alternative courses of action. (National Resources Defense Council v. Morton, U.S. Court of Appeals, D.C. cir. 1/72). Although adequacy has not been defined by the courts, it means that an agency has to the best of its knowledge, made an effort to explore various alternatives.

3. The Forest Service's compliance with its own procedures is essential. An examination of recent court rulings shows that courts are more likely to rule against an agency on procedural non-compliance than on substantive grounds, (Leshy 1977). The standards of judicial review are based on the Administrative Procedures Act, and courts do not substitute their own judgement for that of the agency.

"Courts have said that the resolution of matters of scientific conflict and discretionary policy decisions are within the province of the agency, and will not be struck down, unless they are 'arbitrary and capricious' or otherwise illegal." (Leshy 1977).

4. The relationship of public input to other decision inputs must be made clear and the Forest Service must justify the rejection of suggestions or alternative plans put forth by the public.

5. A full administrative record must be kept of all registered points of view at all decision phases. The purpose of the administrative record is to demonstrate to the public the relationship of public input to decisions made by the Forest Service. The record is open to judicial scrutiny. Decisions based on some intuitive "feel" for public sentiment are legally unacceptable because they are not open to independent reviews.

Conflict Potential

1. Although the Forest Serivce should not attempt to play the role of mediator between conflicting interest groups, since it is not in a neutral position, it can define issues so that polarization is reduced.

Polarizing conflict exists when opponents share few common values, e.g., economic, political, educational, religious, ethnic or linguistic. Adversaries on one issue tend to be opponents on other issues as well. In such situations it helps to find a common interest for the conflicting parties on another related issue. From this basis for agreement it may become possible to compromise on the conflicting issue. (Freeman 1976).

2. If a controversial plan is changed, political support from the initial set of clients is threatened. The decision maker is then in the position of having to rebuild a new support group, which leaves him vulnerable to charges of "sell-out". If the plan is not changed, the decision maker is charged with ignoring the public interest in favor of special interest groups. He is caught in a double bind. (Alston and Freeman 1975).

It can be of help to a decision maker to realize that such changes in public support are at times inevitable. Whichever decision he makes will probably alienate someone. He should make the best possible decision without attempting to please everyone.

3. As members of the public receive an increasing amount of information through the media about decisions that affect their lives, they will increase their demands for participation in making those decisions. This response can be expected in a democratic society. If opportunities for participation are not provided, the public will demand changes in procedures and institutions. (Umpleby 1972).

4. Members of the public frequently want policies in their region to be consistent and comprehensive. They also want to exercise influence in making and carrying out these policies, especially when their particular interests are threatened. Few people, however, are willing to sufficiently compromise their interests in order to achieve the first goal.

Traditional planners attempt to follow controlled processes of analysis, development of alternatives, and evaluation of consequences. They seek a planned solution to a problem. Public reactions to a proposal frequently do not contain a comprehensive overview of a problem: They are a "resultant" rather than a "solution". Separate individuals or groups who have no common intention may make their selections and criticisms without regard to each other. (Bolan 1967). Public involvement is one way of incorporating these public reactions into the planning process.

Conduct of Public Involvement

1. Begin public involvement early enough in the planning process and allow adequate time for public responses so that they can affect the decision. Early involvement helps establish credibility with the public and assures that an appropriate range of public sentiment is registered, and suitable alternatives are developed. The public resents involvement that is an afterthought to a decision already made.

By not forcing a decision through, and providing adequate time for public responses during the planning process, the Forest Service can receive objections and modify plans accordingly. If, however, it forces a decision prematurly, the public may resort to legal means to change the decision.

Adequate public involvement may help prevent such law suits.

2. The objectives of public involvement for a given issue should be clearly stated both within the agency and to the public. This will aid the Forest Service and the public in understanding when public involvement should be sought and for what purpose. It will also prevent the public from misinterpreting its role in decision making.

Both the public and Forest Service decision makers should recognize the line officer's responsibility for evaluating data and making the decision. Responsibility for a decision cannot be delegated: There can be no group decision.

The public, especially, should not be led to think that public involvement is "vote counting": The majority opinion will not necessarily prevail. Neither should Forest officers feel they are abandoning their authority. Decisions still rest with line officers, but the public is brought in to provide input so that better decisions may be made.

3. In order to avoid misunderstandings, legal, financial and other constraints should be made clear to the public. This will allow the public to appreciate the bounds within which the Forest Service must operate and define the limits within which public suggestions are viewed.

4. Technical planners may tend to develop alternatives that are not in agreement with the ideas, values and preferences of those who are directly affected by the plans. It is therefore important to include the public's

perceptions and feelings as data in the planning process.

For a given issue make major categories of feelings ranging from "strongly for" to "strongly against". Then record the distribution of these feelings.

Depending on their value systems, various interest groups may interpret the same data differently. All public input expresses values, whether it is well-reasoned or not. The overriding objective of public involvement is the identification of these values. Therefore collect and record all data interpretations.

5. When presenting information to the public, speakers should be careful not to create "information overload". In selecting material for presentation it is important not to use material that is too technical. For example, the public does not understand or care about the technical aspects of timber management. They are more concerned with the effects of a timber plan on the local community, and this should be the focus of the presentation.

6. In order to be most effective public involvement should be continuons rather than summoned only when the law requires it. The Forest Service should establish contact with members of the public and meet with them on a regular basis.

7. Don't force public involvement if there is no public interest. An issue may appear to be important from the Forest Service's point of view, but the public may not consider it so. (Behan 1970). The purpose of public involvement is to give the interested public a chance to participate. The Forest

Service doesn't need to stimulate public interest in order to fulfill its public involvement requirements.

8. Provide varied opportunities for input. A variety of techniques should be used to secure public involvement, depending on the issue at hand and the purpose of seeking involvement. Some techniques are more conducive to registering public criticism, whereas others provide a format for a longer term contact between participants and the Forest Service. The latter techniques allow conflicts to be resolved in a more constructive manner.

Refer to appendices A and B to aid in selecting appropriate public involvement techniques.

9. Citizens should be given personal, individual replies when they write to ask questions or indicate they expect responses.

10. The time required for making the public aware of the issue, for giving them relevant information and for receiving their input tends to increase: a) as the issue becomes more complex and controversial, b) with the existence of organized, opposing interest groups, c) as the scope of potential public interest becomes larger, d) as the land area directly affected by the decision increases, e) as the decision becomes more nearly irreversible. (Hendee 1973)

This greater time lag results in higher public involvement costs. Therefore as issues become larger public involvement requires more time. When an issue is complex, start the public involvement process earlier. Reserve more manpower and expect higher public involvement costs.

11. Critique your own involvement strategy. Find out what was done well, and what went wrong and how it can be handled better next time. Assure that the necessary training is made available.

12. Public involvement does not necessarily lead to an acceptance of the Forest Service's point of view. In a study conducted by Le Page, and Graves (1977) they found that it was not the public's participation but rather the agency's openess and its employees' competence that produced increased public confidence in the agency.

CHAPTER VI

THE MEANING OF REPRESENTATIVENESS

A. WHO IS THE PUBLIC?

There is no such entity as "the public". In reality, there are many publics and their respective concerns and interest alignments change over time depending on the issues at hand (Warner 1971). One definition states: "A public may be defined as any loose association of individuals who are held together by common interests and objectives and by various means of communication." (Jones 1966).

Publics are hence identified in relation to particular issues. Whether they will become involved and work on these issues and the related decision formulation depends on a series of factors. Among these are:

1) Awareness by the individuals and organizational leaders of the issues to be evaluated and on which decisions must be made;

2) Their perception of the level of consequence that the decision to be made will have on their own interests;

3) The degree to which these people believe they can influence the decision in a manner beneficial to their interest;

4) Their evaluation of their participation cost in terms of time and energy against the benefits they will derive from it.

Given the above stimuli to participation, historical patterns of influencing Forest Service decision making become logical. The groups whose livelihood is dependent on Forest Service land management are in the forefront of involvement. Industry and industry employees use the public forum and, in terms of frequency, more often have direct access to Forest Service managers. They are also expert in using the political process to influence decision making. Historically the next major participant groups in the decision formation process were civic or community groups who are not members of a specific industry but whose livelihood or mode of life was directly effected by the land management decision. Only more recently have general interest groups, sometimes identified as conservationists, "preservationists" or environmentalists, become involved in public land management and decision processes either as individuals or, more often, through voluntary coalition in common interest organizations. Members of these groups often live at considerable distances from the problem area.

1. Participating Actors

The major participant populations in public involvement activities in the Forest Service can be subdivided into:

a. Interest groups

(1) Economic interest group

(2) Environmentalist interest group

(3) Non-extractive user group (e.g. recreationists)

(4) Civic or neighborhood associations

b. Concerned local residents

c. Elected officials

d. Scientific/Educational representatives

e. Key Citizens

Key Citizens are identified as initiators, activists or leaders representing one or more of the above groups. They can, however, also be unaffiliated citizens with strong personal or professional interests.

f. Public agencies

(1) Federal (other than Forest Service)

(2) Other (e.g. State, Local)

g. Forest Service personnel in official capacity

h. Forest Service personnel in unofficial capacity

2. Participant Roles

We must understand the roles the participants in the public involvement process play in the planning process, to be better able to judge their representativeness. All participants bring a myriad of viewpoints, skills and resources into the planning process, as well as their respective social positions or political influence. By defining the roles of participant groups we can better identify their participatory needs. Table suggests the likely role each of the eight participatory groups may desire to play in the planning process which, for this illustration, has been divided into 22 steps. Obviously, participants may, at times, play roles different than those suggested in the table. Planning has been subdivided into 5 phases: Mobilization, preplanning, plan

formulation, plan evaluation, decision making and evaluation. For simplicity only three role levels are identified (Yukubousky 1973):

a. The leader has primary responsibility for organizing and carrying out that planning activity and assuring the interplay of the other parties for successful conclusion of the activity. Some activities might have shared leaderships.

b. An active participant provides support, technical inputs, data, analysis or other intensive participation. Generally this participation assumes a dialogue with other active participants and the leader.

c. The passive participant reviews or responds to data, ideas, evaluations etc., without involvement in an intensive collaborative effort. Some individuals identified as passive participants in one particular planning phase may actively participate in another planning phase, but the majority of a passive participatory group probably will not.

Table presents the planning activity/participant interaction matrix.

B. MICRO ASPECTS OF PARTICIPATION

1. Representation

> "Special interest groups represent the major thrust of public opinion expressed in controversies over.. resources development... Special interest groups must be taken seriously since, at best, they represent significant portions of the population concerned not only with their own individual interests but also the interests of the community at large; at their worst, they may represent a substantial powerful group concerned only with private interests.... The majority of individual citizens are not represented by interest groups. Balancing the various special interests may be the only practical solution in a particular situation, but the .. resources manager must also protect the rights of the public at large." (Curran 1971)

If special interest groups are proportionally the most heavily represented in public involvement processes, what is the stratification of the concerned unattached participants? Verba and Nie (1972) and others suggest that the higher economic status citizens are more likely to participate in public involvement activities then lower social economic groups, with particularly poor representation by the minorities. Large segments of the public are therefore left unrepresented. This is specially noticeable in major national issues where representation of the general public is a problem. If, in contrast, the resource problem is localized and of concern primarily to a small, homogenous and consensual community, the participants, even if few in number, tend to represent and speak for the majority. Such situations are becoming less frequent due to the decrease of homogenous small communities (Verba and Nie 1972), and due to the frequent involvements by regional and national groups in what were once considered local resource management problems.

2. Alienation

Attempts to insure representative public involvement may attract alienated persons who participate only to express resentment and generalized distrust of public officials (Twight 1977). Alston and Freeman (1975) reported that Forest Service attempts to increase public participation at the local level often resulted in further polarizing the contending groups. Widely advertised opportunities for public expression sometimes attract persons who are politically alienated. High alienation is normally associated with low educational levels and low occupational status (Twight p. 94). When alienated persons do chose to participate they tend to make an active negative response (Orr 1974).

Support for national federal land management cannot be easily organized among an alienated population. The less alienated groups that normally participate in the political process can be contacted most effectively through small workshops or contacts with key community leaders (Twight p. 95).

3. Mediating Factors

Four factors were identified by Warner (1971) which encourage more effective public involvement. They are:

a. Civic Culture. The high value placed in U.S. society on citizen participation in governmental affairs acts as a supporting factor.

b. Opinion leaders or inovators. Key people act as pace setters with regard to their interest in and knowledge of particular subject areas. They are often willing to assume an active role in issues affecting these areas.

c. Organized groups who perceive their collective interests as being significantly affected by the potential content and recommendations of a planning activity. They therefore may encourage participation by their members in order to assure that the organizational interests are adequately presented.

d. Status and prestige. Active participants in government policy making and program setting are often clothed in status and prestige for having played an influential role. This is enhanced if the participant is identified with the final policy and gets media recognition for his influence. These rewards may, by themselves, constitute a sufficient incentive for involvement in the planning process for these individuals.

In contrast to these positive incentives to involvement in planning, Warner cites four counter-mediating effects:

(1) Lack of knowledge. Most people tend to remain unaware of natural resource planning efforts and their opportunity to participate in plan and decision formulation. An exception are local populations immediately and significantly affected

by a particular land management problem subject to planning. Lack of knowledge does not apply to interest groups.

(2) Insufficient followup. "Plans formulated in past years have not generally been renowned for the amount and types of followup action they have generated. Therefore, the potential for actually achieving the goals set forth is generally perceived as rather low (by the public), probably even by large numbers of planners themselves." (Warner 1971)

(3) Scope. "Plans have tended to be fairly broad in scope (in terms of the area and subject matter) and highly future-oriented. Neither of these types of perspectives are ones to which most people are acustomed or with which they can easily identify." (Warner 1971)

(4) Focus. "Plans tend to focus on general collective concerns rather than on the types of more private and personal issues with which people are immediately faced. Therefore, the possible direct benefits the plans could generate for any given member of the public will likely seem limited and nebulous in weighing the most useful expenditures of the individuals scarce time and energy resources." (Warner 1971)

C. SAMPLE SIZE

1. Response Sampling

To obtain a fair sample, formulas have been developed to determine the necessary number of responses to be selected out of all incoming responses. For example Region 1 and the University of Montana have designed the following simple sample selection guide:

Number of responses received	Sample size to be analyzed
10 or less	100%
11 to 100	50%
101 to 250	20%
above 250	n = 50

Some sample selection procedures have built-in inconsistencies. The above formula exhibits these at the transition points (e.g. if 100 responses are received 50 would be analyzed; but if 105 are received only 21 would be analyzed). All sampling formulas prescribe only the number of responses to be sampled. They do not identify who should be invited to respond or which populations should be solicited to participate.

2. Representative Populations

The determination of a reliable representative participant sample in a public involvement effort is obviously most difficult given the discussed inhibitors. To play it safe, it is sometimes suggested that the goal should be "the maximum number of participants". The Forest Service administrative study on public involvement states: "We feel the ideal would be for every affected or interested citizen

to be involved, but it is clear that even the best efforts will fall short of this. However, substantial involvement is desirable, and we suggest that the more people that are involved, the better. As the number of people increases, the chance decreases that a vitally affected interest will be unheard or under-represented. . . . .In every important issue the Forest Service should strive to involve as many citizens as possible who are potentially affected by a resource decision or are interested in it. (Hendee et al, 1973).

Neither the 1974 Guide to Public Involvement and Decision Making nor the 1977 draft of the Inform and Involve Handbook have adopted this recommendation from the administrative study nor substituted their own directives for "assuring representation".

While it is most desirable that all involved population segments participate or at least be heard, it may not be possible to assure this. First of all many publics may not volunteer to participate and further the land manager may not be able to identify all the interested parties to a problem and he therefore cannot personally invite them.

This chapter has pointed out that the participant populations in natural resource public involvement events tend to be skewed toward overrepresentation of higher socio economic groups, economic interests, and possibly alienated individuals. Only where public involvement takes place in small, homogenous and consensual communities and is related to local problems is it more

likely that representation is not biased toward any particular organization set. Given these conditions, it may be inadvisable to opt for the largest possible participation if it will tend to increase the bias.

The guidelines on representation that can be given are, unfortunately, inprecise and carry no warranty for success. When public involvement procedures are deemed advisable or necessary the land manager should:

a. Assure sufficient information dissemination about the Inform and Involve scheduled event to the communities and publics known or presumed to be interested in the problem under examination. All appropriate media, including mass media, should be considered for this phase.

b. Try to obtain feedback before the public involvement event takes place about the response to these invitations. Return cards attached to the mailings or telephone responses for people contacted through the mass media are some means to accomplish this. These responses, while incomplete, are a proportionality indicator to the populations and publics which plan to attend and participate.

c. Analyze the list of probable attendees and search for missing parties, (i.e. presumably interested publics which will be apparently underrepresented).

d. Make efforts through personal or staff contacts with leading members of the missing public groups (including minorities) to gain their representation in the public involvement event.

e. Analyze public representation after the first meeting and then attempt to fill the representative voids as in step d above if there is more than one meeting.

f. Emphasize feedback after the public involvement event to those segments of the interested public that were not represented. This may encourage better representation by these public segments during subsequent public involvements.

g. Refrain from encouraging increased numerical participation from publics already very well represented. It is understood that Forest Service employees cannot discourage attendance or participation by anyone in public involvements.

h. Refrain from trying to determine whether representation is in proportion to the relevant populations. The size of most publics (i.e. population) interested in a specific resource issue is unknown. It is therefore impossible to determine what proportional representation this population should provide.

The authors conclude that the question of valid representation of all concerned publics can be approached only subjectively. No quantifiable knowledge of the stratification of all concerned publics or their population size is available, hence no formula can be developed to assure the validity or reliability of the participating sample. Attempts to encourage at least some representation from all known public groups will, however, meet the requirements of our directives as well as the ethical dictums for public participation.

Phases → / Planning Activities / Actors	Mobilization				Preplanning						Plan Formulation						Plan Evaluation			Decision Making and Evaluation		
	Identifying Participants	Soliciting Wider Involvement	Sensitizing Participants	Selecting P.I. Techniques	Problem Identification	Issues	Goals	Scenarios	Agenda	Organization	Problem Structure	Data Identification	Data Collection	Data Analysis	Action/Policy Alternatives	Alternatives Analysis	Alternatives Evaluation	Alternatives Negotiation	Plan Recommendation(s)	Decision Making	Decision Implementation	Decision Evaluation
1. Interest Groups	A	A	A	P	A	A	A	P	P		A	A	A	A	A/L	A/L	A/L	A	A/L			A
2. Concerned Locals	A	A	P	P	A		A	P			P	A	A	A	A/L	A/L	A/L	A	A/L			A
3. Elected Officials	A			A	A		A				P	P	P		P	A	A	P	A			P
4. Scientific/Educational	P		P		A	A	A	P	P		A	A	A	A	A	A	A	A	A			A
5. Key Citizens	A	A	A	A	A	A	A	A	P	P	A	A	P	P	A/L	A/L	A/L	A	A/L			A
6. Public Agencies	P				A	A	P				P	P	A			P	A	P	A			P
7. F.S. Personnel Official	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L/A	L/A	L/A	L	L/A	L	L	L
8. F.S. Personnel Unofficial		A	A								P	P	P			P	P	P	P			

Table 2: POTENTIAL ROLE OF PARTICIPANTS IN PLANNING PHASES

KEY

L = Leader
A = Active Participant
P = Passive Participant

CHAPTER VII

ISSUE, SITUATIONAL AND PROCESS VARIABLES

There are basically two ways to examine complex processes or systems. One is to look at the process as a whole by examining its characteristics, meaning and application in totality. The other is to dissect it and examine the parts and their interrelationship. This analytical approach often leads to more traceable results when the system is complex and many-dimensional.

Public involvement processes are, like most management processes, composed of variables over which the manager has very limited control, and of those which the manager can manipulate to a larger degree.

We conceive the public involvement process to consist of three groups of variables:

I. Issue Variables

II. Situational Variables

III. Process Variables

The Forest Service manager has only very limited control over the value or status of the issue and situational variables. The process variables, on the other hand, are almost completely under management control. The purpose of public involvement management is to select that public involvement

process which best meets the needs of the issue and of the particular situation. The process variables can therefore be considered to be "dependent" on the issue and situational variables. It is our hypothesis that there are processes that are better suited for some situations and issues than others, and that it is the manager's function to learn which combinations are better. This learning process is enriched by the manager's intuition and experience and the experience of others. These we hope to evaluate systematically and to present in another report. See Chapter VIII.

The proposed three sets of variables are enumerated below. They are relatively self-explanatory. The comments on each variable may be redundant for some readers. The complete stratification of each variable is shown in Appendix C . Only the variable breakdown needed to understand the major characteristics of each variable are listed in this section.

I. ISSUE VARIABLES

A. DESCRIPTION OF DOMINANT ISSUE

1. Allocation of land
2. Allocation of resources on the land
3. Program Direction
4. Internal stimulus (e.g. administrative change)
5. External stimulus (e.g. power line)
6. Other

B. REASON FOR THIS PUBLIC INVOLVEMENT

1. NEPA
2. RPA
3. Wilderness Act
4. National Forest Management Act
5. Consumer Affairs Act
6. Chief's Direction
7. Local Forest Service Policy
8. Other

These two variables define why a public involvement process is either designated or contemplated for a particular planning or decision process. Variable A identifies the dominant issue which asks for resolution and on which a management decision must be forthcoming. Variable B describes the legal or policy reason. It is conceivable that there may be two equally dominant issues, but this does not happen often.

C. FOCUS ON PLANNING HORIZON

1. Long Range Planning (e.g. future use allocations of land)
2. Intermediate Range Planning (e.g. major activities are planned within next 3 years)
3. Near Future Activity of Limited Scope (e.g. stream channel enlargement; fencing, road construction)

This is a differentiation according to planning horizons. Since we have no formal agreement on what constitutes long, intermediate and short range planning, somewhat arbitrary levels had to be established.

D. PERCEIVED GEOGRAPHIC ZONE OF INTEREST IN ISSUE (Scope of impact)

1. Local

2. Geographic region or zone

3. National

The geographic zone of interest may shift during the planning and analysis stages of a particular land management problem. Media coverage broadens the interest zone. What may start as a local problem may end up as a national problem. At any one moment in time,however, the geographic zone of interest can be defined,and the public involvement processes should be designed to meet that specific need. An event of local interest would be obviously treated differently than an event of national interest.

E. TECHNICAL COMPLEXITY OF ISSUE

1. Low

2. High

The definition of the technical complexity of the issue is from the public point of view. If an issue has several components (e.g. ecological, economic, social, etc.) any one of which is complex, it is defined as a complex issue. Complexity is also defined by interrelation of the components of the issue. A good measure of complexity is the number of manhours the Forest or Regional staff has to spend on definitions, data collection , analysis or other preparations before being able to go to the public.

F. REPETITIVENESS OF EVENT

1. Scheduled routine contact

2. Special event

Some issues are routine and occur at predictable time intervals (e.g. information-giving, progress reports). The more critical issues tend to require special events.

G. PUBLIC INTEREST

One of the selection criteria for a public involvement process should be the level of probable public interest estimated to exist before the public involvement event takes place. But probable public interest in an issue is hard to estimate beforehand. Such measures as number of inquiries or media interest can be misleading. The indicators become more reliable after the public involvement event has taken place. A comparison of the "before" and "after" public involvement event interest estimates provides an indication of the estimating error.

H. NUMBER OF PUBLIC CONCERNS

The number of concerns expressed is not equivalent to the number of communications received. A concern is a particular expressed interest or view on a topic. Many individuals or groups can express a similar concern about the same topic. These would collectively count as 1 (one).

I. LEGAL REVERSIBILITY OF DECISION

1. Bound by law

2. Non-appealable (Forest Service Administrative Procedure)

3. Appealable

4. If appealable, is this issue now, or is it likely to go to appeal on litigation?

5. If yes under 4, which:

Litigation

Formal administrative appeal

Arbitration

It is hypothesized that decisions on issues which are easily legally appealable and/or reversible will result in a less vigorous public stance and may be amenable to less formal public involvement processes than decisions on issues which are less readily appealable, and hence reversible.

J. REVERSIBILITY OF BIOLOGICAL or SOCIAL CONSEQUENCES OF DECISION

1. Irreversible

2. Reversible

a. Low cost or effort

b. High cost or effort

The reversibility on biological rather than legal grounds is hypothesized to have the same impact as legal reversibility identified under I. above.

K. PREDICTABILITY OF PROBABLE CONSEQUENCE OF DECISION

1. High
2. Intermediate
3. Low

High predictability of the consequences of a land management decision assumes that the various parties to the public involvement process agree on the consequences. When each party is certain of the reliability of its own predictions, but there is no interparty consensus, then the definition of predictability is low to intermediate, depending on the degree of agreement. High prior predictability of decision consequence is hypothesized to lead to less conflict, suggesting different public involvement processes than low predictabiltiy.

L. TIME AVAILABLE BEFORE DECISION MUST BE MADE

1. Very limited
2. Intermediate (up to 1 year)
3. Over 1 year

When the available time for planning is very limited, time consuming public involvement processes are not suitable.

M. FOREST SERVICE COMMITTMENT TO ISSUE RESOLUTION PRIOR TO P.I.

1. One alternative favored by Forest Service
2. Several, almost equally attractive alternatives
3. No preference for any alternative

This variable is related to the sequencing of public involvement in the planning process. The earlier the public involvement, the more fluid the Forest Service position tends to be. The selected public involvement process should provide the strategy to help achieve the appropriate public participation.

N. CONFLICT SITUATION

1. Between public groups
2. Between Forest Service and public groups
3. Between Forest Service and local public agencies

Sometimes the conflict situation is well-known before the event takes place; at other times conflict becomes apparent only during or even after the public involvement event. Type and degree of conflict affects public involvement process selection.

II. SITUATION VARIABLES

The situational variables define the area and conditions (situation) where the public involvement event takes place. These variables seem peripherally independent of the issue variables identified under I. But there exist interrelationships because complex or conflicting issues will probably draw more participants than simple, conflict-free issues.

National issues will tend to have public involvement events occurring in larger and smaller cities, while local issues may be restricted to smaller communities. Interactions between variables of type I and/or II versus type III are of far greater interest and significance than interactions between type I versus II.

A. POPULATION AT LOCALITY OF PUBLIC INVOLVEMENT EVENT

1. Smaller than 10,000
2. Between 10,001 and 100,000
3. Larger than 100,001

When the same Public Involvement process is repeated in different towns it is counted as a different event. Using the same Public Involvement process in communities with widely differing populations could lead to different results.

B. PARTICIPANTS INVOLVED IN THIS PUBLIC INVOLVEMENT EVENT

1. Number of public participants
2. Participant populations involved in the Public Involvement event.

Number of participants and their identifications are a major determinant for Public Involvement process selection.

III. PROCESS VARIABLES

A. PURPOSE

1. Purpose of scheduling this public involvement event or series of events

a. Information giving (one way to public)

b. Information review or reaction (one way from public)

c. Interactive

d. Mix of a, b, c or d

Public involvement events have an identifiable purpose: information giving to public, information collection from the public, developing information jointly with the public, or a mix of the above. Some writers in this field identify another purpose called extractive. This purpose presumably has an objective to extract information from the public. It is so similar to information receiving, (i.e. review or reaction as in b.) that a separate category has not been established.

B. INFORMATION PRESENTED TO THE PUBLIC

1. Type of planning data presented to public

a. None

b. Resource information and inventory

c. Potential use determination

d. Completed use alternatives

e. Forest Service preferred alternative

f. Other

2. When was the data in 1. (b-f) first made available to the public?

   a. All before the P.I. event

   b. All during the P.I. event

   c. Before and during the P.I. event

3. To what extent did this information (in 1 above) meet the public needs for this P.I. event?

   a. Too little information

   b. Correct amount of information

   c. More information than needed

4. Lead time between providing the information and the P.I. event?

This set of variables deals with information presented to the public relative to: 1-2) type, 3) sufficiency, 4) time of availability.

C. PROCESS STAGE

1. At what stage within the planning process was this P.I. event scheduled?

   a. Problems, goal, objective or issue identification

   b. Data collection

   c. Data analysis

   d. Evaluation of alternatives

   e. Selection of alternative and recommendation for action

   f. Implementation of action

   g. Cannot identify

Public involvement can be effectively instituted and used in many stages of the planning process. Some particular public involvement processes are most effective if scheduled at a particular stage in the planning process. The staging of the public involvement event does not necessarily restrict topics of discussion to this particular process stage. All previous stages and outcomes in the planning process can be discussed and the public involvement process can also project onto future stages. One may, however, hypothesize that at an early stage in the planning process, when little or no data is available, a different public involvement procedure may be preferable to that selected at later stages, when considerable information on the problem has been generated.

- D. PRESTRUCTURE

1. Was this public involvement event:

   a. Completely prestructured and scenario was followed

   b. Completely prestructured and scenario was not followed

   c. General procedural outline only

   d. No prestructure

The manager selecting an appropriate public involvement process must be concerned whether this process needs prestructure and to what extent it needs to be rigorously followed.

E. IDENTIFICATION OF PUBLICS

This variable elicits whether the Forest Service officer(s) were able to identify affected publics and the extent to which the actual participants in the public involvement event matched this prior identification.

F. PUBLIC INVOLVEMENT

1. How often did the same public meet for this issue(s)?
2. Average length of meeting.
3. Level of "active" participation by attending public (i.e. asking questions, making statements, etc.)

This set of variables defines the total public involvement by frequency and hours, and by level of participation by the majority of the public participants.

G. GROUPING

1. Were participants subdivided into groups?
2. What was the average group size?
3. Composition of groups.
   a. Random
   b. Pre-selected
   c. Self-selected
4. Did the group include:
   a. A Forest Service participant
   b. Another resource person
5. Was external advice or consultation on dealing with the public sought during this event? Who was the consultant?

This set of variables includes the size and composition of groups, and the availability of special resource people.

H. FACILITIES

1. Facilities required for this public involvement event were:

a. Indoor

(1) government owned/leased

(2) other

b. Outdoor/field

c. Both

Here we record what physical facilities were needed to support this public involvement event. Government indoor facilities are owned or leased full-time by the government for the housing and conduct of routine government activities (e.g. Supervisor's Office, federal court building, etc.). Other facilities are those rented by the government or provided free of charge specifically for the public involvement event.

I. COSTS TO THE FOREST SERVICE

Forest Service-incurred costs are those directly attributable to the public involvement event. Time and money spent on data collection, analysis and planning which would have been spent even if no public involvement had taken place, are not to be identified as public involvement costs.

J. MEDIA INVOLVEMENT

1. The number of articles, programs, news spots etc., given this event by:

   a. Newspapers

   b. Radio

   c. Television

   d. Publications (magazines)

   e. Other: _____

This variable is listed as situational. It could also be considered an effectiveness variable because media interest is one consequence of effective information management.

K. FEEDBACK TO PUBLIC

1. Was there formal feedback to the participating publics on their input?

2. What were the means of feedback?

3. What was the content(s) of the feedback?

One of the important communicative elements is feedback. This variable explores the existence and type of feedback given to the public in response to their input to the Forest Service.

L. POST-PROCESS RETROSPECTIVE

1. In retrospect: Was the public involvement process used suitable for this particular issue?

2. The participant effort required by the public involvement process for this issue was:

   a. From public participants

      (1) too large

      (2) just right

      (3) too small

   b. From Forest Service participants

      (1) too large

      (2) just right

      (3) too small

3. Did the Forest Service staff participating in the public involvement event have sufficient advance training in organizing and managing this process?

4. Did Forest Service personnel make any major errors in executing the public involvement process which may have affected or influenced it effectiveness?

5. Was the public involvement process critiqued after completion?

   a. No formal critique

   b. Public critique

   c. Forest Service critique

   d. Joint Forest Service - public critique

This set of variables is retrospective and self-critiquing. Since we learn most from our own experiences, this set of variables allows us to identify in retrospect what we did right or wrong in managing our public involvement process.

The public involvement variables discussed and identified above are obviously not all-inclusive. They are selected as significant identifiers of the public involvement process. It is important for the manager selecting and conducting a public involvement process to recognize that in every public involvement event he makes choices, sometimes knowingly and sometimes not, involving each of these variables. It is hypothesized that at least some of these variables bear significant correlation to the effectiveness of the public involvement process. When such correlations can be established, the manager will be measurably helped in making his choices of a suitable process for each situation.

CHAPTER VIII

PUBLIC INVOLVEMENT EFFECTIVENESS AND ITS MEASUREMENT

A. INTRODUCTORY COMMENTS

"To date, there have been few attempts by planning agencies to explicitly define performance criteria for evaluating the effectiveness of public involvement activities." (Warner 1971). This statement, while six years old, appears to still hold true. Attempts to define a comprehensive set of performance criteria and their related measures and to systematically evaluate public involvement activities against these criteria are not known to the authors.

Early attempts at effectiveness descriptions were centered mostly around objective descriptions of public involvement activities. One early assumption related program effectiveness to frequency of public involvement events. This, carried to an extreme, can lead to abdication of managerial responsibility where form of decision making (i.e. by use of public involvment) can replace the substance of the decision and even minor policy decisions are unnecessarily delayed.

Effectiveness criteria have traditionally been described in INPUT rather than in OUTPUT terms. Suggested types of criteria included: 1) providing opportunities for members to participate; 2) providing information for public to participate; 3) providing adequate time for public involvement; 4) providing abilities for the agencies to respond to public inputs; 5) providing a variety of public involvement mechanisms;

6) representation of all interests; 7) do the alternative solutions provide some "compensation" (equity) to all the interests. (Warner 1971, Manheim 1971).

These are, however, primarily preconditions to public involvement and requirements for a public involvement process rather than consequences of public involvement to the agency, the participating publics, and society as a whole.

La Page (1975) proposed a more modest list of benefits for public involvement evaluation. They are:

1. Public satisfaction with policies which they helped develop.
2. Public confidence due to public involvement in:
   a) Resource Management
   b) Forest Service Management
   (The difference between confidence in resource management and Forest Service management is not apparent.)
3. Change in public attitude and interest in future involvement due to intensity of past involvement.

A major block to deriving generally accepted public involvement effectiveness measures is the lack of agreement on what constitutes effective public involvement. One school focuses on decision outcomes. If the decisions made by the agency have improved as a result of public involvement, the process is presumed to be effective. Another school prefers to examine improvement in the decision making process (Karr 1975, 1977, Warner 1971, Manheim 1971) etc., independent of the quality of the

decision itself. Others focus on socio-political consequences (e.g. reductions of conflict and/or court litigations, attitudes and satisfactions of the participating parties, etc.), regardless of the strength of decision outcome.

While all these types of objectives may be desirable, they are not necessarily compatible. The definition of a "better" decision furthermore remains elusive. According to what set of "objective" or "subjective" criteria is "better" to be judged? There are very few objectives (e.g. reduction of pollution) that are accepted by all parties. Most criteria we label "objective" (e.g. resource output) are really subjective in that there is no uniform agreement on preferable outcome. Some parties prefer to increase certain outputs while others might prefer to reduce the same outputs or hold them constant. If one attempts to measure public involvement effectiveness along these several dimensions, how is one to interpret a public involvement process that resulted in improvements along one dimension (e.g. quality of decision) while creating a decrement in another (e.g. conflict)? A net benefit is hard to define when the gains and losses are non-quantified and subjective. These are some of the unresolved problems in public involvement effectiveness evaluation.

These limitations in evaluation procedure should be understood by the public involvement user (resource manager) and the researcher in the field. They should not be used to paralyze further attempts to evaluate ongoing processes or to research for better procedures.

The most frequently used procedure for assessing public involvement "effectiveness" is by a survey (questionnaire technique). Researchers have designed questionnaire and interview forms to ask members of the public and the planning agencies to provide data including ratings and rankings on a series of measures relating to public involvement effectiveness.

B. SURVEY OF PUBLIC INVOLVEMENT IN WATER RESOURCES PLANNING

One of the more comprehensive efforts using survey techniques was by Warner (1971) who mailed questionnaires nation-wide and to Canada to 227 public planning agencies and 296 private organizations concerned with water resources planning. 113 of the agencies and 143 of the private organizations responded. The most important findings from this survey relevant to the Forest Service are enumerated below.

1. Effect and cost evaluation by government administrators and planners in water resource planning.

   The percentage of responding agencies who gave high or very high ratings to the listed results of public involvement were:

   For information produced during public involvement - 37%

   Significant increase in public understanding - 67%

   Increased public support - 59%

   Increased local official support - 75%

   Worth the time and cost invested by the agencies - 63%

2. Effective public mechanisms

There were 10 public involvement mechanisms identified in the survey as used by the water resource planning agencies in 1971 which were evaluated by various formulas. The general consensus ranking of the usefulness of these mechanisms by the agency administrators and planners participating in public involvement is:

1. Citizens advisory board
2. Informal contacts
3. Public meetings
4. Citizen task forces
5. Public hearings
6. Speeches and other presentations
7. Newspaper articles
8. Workshops
9. Radio and TV
10. School programs (this is classified in the Forest Service as an information and education program for children rather than public involvement process)

For this survey no definition of usefulness was provided and each agency made its own ratings and rankings on implicit and informal criteria which are not necessarily consistent between agencies.

Due to insufficient exposure and experience in public involvement by the surveyed private groups, Warner was not able to get equivalent usefulness rankings.

3. Conflict resolution

Eighty-two percent of the responding agencies indicated that conflicts between private interests and government agencies, between private interests themselves and between local and regional or national interests tend to become more apparent because of the open airing of diverse viewpoints and conflicts during public involvement. Forty-eight percent of the agencies also indicated that public involvement significantly contributes to solving these conflicts. Thirty-three percent found that it made no impact on conflict resolution. Twenty percent felt that public involvement reduces significantly the probability of resolving these inter-group conflicts.

4. Agency participation

The public agencies ranked their own personnel on the basis of who should be involved in public participation efforts:

1) High level agency administrators
2) Immediate supervisors of planning efforts
3) Working level plan formulation staff members
4) Communication - public affairs specialists

The above item is not an effectiveness evaluation item, but is listed here because of its potential interest to Forest Service line officers.

5. Changes needed to enable more effective public participation

a. Operations

Private groups indicated the following needed improvements or operating changes, in order of decreasing importance:

1) Additional legislative provisions (these have since been provided by executive orders and agency rules)
2) Timing of involvement opportunities (earlier involvement of the public in the planning process)
3) Information provided by agencies
4) Involvement mechanisms used by agencies
5) Funds and manpower of private groups (this is not an action item for public agencies)
6) Procedures used by public agencies (i.e. the planning procedures which allow for public involvement)
7) Authorities or responsibilities for agencies (this has been modified since 1971 as identified in #1 above)
8) Organizational arrangements of private groups (not an action item for a federal agency)

Items 2, 3, 4 and 6 are still valid concerns to federal agencies and the Forest Service. Significant improvement in these items is feasible.

b. Public participant roles

In this pre-1971 survey public participants classified their roles to be predominantly as observers and reviewers. The private groups recommended as preferred roles for their members:

(ranked in decreasing importance)

1) Participant in formulating objectives

2) Participant in formulating recommendations

3) Task force member

4) Participant in formulating alternatives

5) Advisor

6) Official reviewers

7) Observer

8) Independent reviewer

The primary emphasis as shown in this listing is as participant in formulating objectives early in the planning process and in working on the analysis and formulation of consequent action alternatives and recommendations. This is the trend of involvement roles assigned to the public in the Forest Service as well as in many other federal agencies.

C. EFFECTIVENESS CRITERIA AND MEASURES FOR THE FOREST SERVICE

1. Effectiveness Evaluation Criteria from Inform and Involve Handbook.

The August 1977 draft of the Inform and Involve Handbook suggests seven criteria for evaluating the effectiveness of a public involvement process (p. 102)

1. Volume of Input from the public (in response to an inform and involve announcement)

2. Abatement of polarity (between conflicting or contending parties)

3. Representation (i.e. adequacy of sample size of participating publics to represent known interests groups and parties)
4. Generation of new information (during P.I. process)
5. Modification of decision due to P.I. input
6. Acceptance of final decision by public as consequence of P.I. process
7. Quality of decision (presumably because a "poor" quality decision would have been challenged by the public during the P.I. process)

Criterion 1 above does not measure the effectiveness of a public involvement program. It is a function of the controversy surrounding an issue. While high public input is often desirable, it is questionable whether input into and quality of public involvement are correlated.

Criterion 2 has similar characteristics. Abatement of polarity may not always be possible nor even desirable. The real reason for abatement, when it occurs, may be difficult to trace. "The avoidance (abatement) of conflict may not be a reliable measure of whether decision making has imporved. And, in fact, there is some doubt as to whether public involvement and face to face confrontation may not produce as many impasses as compromises, while providing as many forums for preparation for court battles as arenas for resolving differences out of court." (La Page 1975).

Conflict remains, however, a significant issue and concern in public involvement management. Conflict management rather than conflict abatement should be evaluated.

Criterion 3 measures a desirable element. But it is an input. It is not a measure of public involvement output or consequence. It further assumes that the evaluator knows all potentially involved publics so that their representativeness can be judged.

Criterion 4-7 are valid output criteria. But they must be more rigorously defined and structured before they can be measured. This is particularly true with criterion 7.

Section C. 2 presents and discusses public involvement effectiveness evaluation criteria structured for direct measurement by the responsible Forest Service official. Criteria #2, 4, 5, 6 and 7 above are covered and some additional measurable criteria are added.

2. Proposed Effectiveness Criteria and Measures

In contrast to the traditional criteria and measures of public involvement effectiveness (as exemplified by the items in sections A and B above) we suggest it might be possible to focus on the consequences or output of the public involvement process. Admittedly, input measures such as dollars or effort spent on public involvement by an agency, the number of public participants, the number of papers or letters submitted, etc., do have a value by themselves. Even if they only identify intent or interest by the agency or the public or

point to existing conflict their potential significance should be considered. To show that the Forest Service is interested in involving the public and is successful in drawing many voices to its forums has an undeniable public relations effect. It shows that we are successfully complying with relevant legal and administrative requirements. But we believe that we can do more than measure only the above. We hypothesize that it should be possible to show that public involvement will; if successful, contribute to the quality or character of the planning process. Twelve of the following thirteen criteria are therefore designed to elicit information about changes in the planning process and/or consequent decision options which are directly attributable to the public involvement effort. Criteria 1, 4 and 5 of the 1977 I&I Handbook are less precise but targeted on the same dimensions.

The purpose of such a criteria listing and an identification of the measures by which each criteria can be gauged is to: (1) show potential outcome consequences of public involvement efforts to which the line manager and planner can address themselves when designing, selecting, or evaluating public involvement procedures, and (2) to design a more formal public involvement effectiveness evaluation scheme.

We propose to design a questionnaire to identify the public involvement classification variables presented in the previous chapters and relate them to the effectiveness criteria presented in this chapter. The

purpose is to have each public information officer or planner responsible for a public involvement event fill out a questionnaire after the conclusion of the public involvement event. These questionnaires would then be collected over a one or two year period and analyzed for correlations between issues and the situations which call for public involvement, the processes selected for conducting the involvement, and the consequent outcome. If successful, we should be able to identify that certain processes lend themselves particularly well to specific types of issues and situations while some processes may be particularly unsuited for certain issues and situations. The line or staff officer will then have a reasonable guide, given an issue and situation, to help select that process most likely to lead to the most beneficial involvement contribution.

The shortcoming of this effectiveness evaluation procedure is the bias of the singular data source the planning or Information officer. Forest Service employees may well perceive the public involvement process and its consequences differently than the public participants. We have evidence from observation that Forest Service officers are sensitive to success and failure of public involvement events and would naturally prefer to see their efforts in a favorable light. Borderline cases of failure might therefore be interpreted as neutral or even successful public involvement efforts.

Since many of the measures of effectiveness are subjective, a good evaluation design would include responses from a representative sample of all participants. Unfortunately OMB directives place such severe constraints on querying the public that a practical plan for enlarging the data source is not feasible.

a. Listing of Effectiveness Criteria

(1) Generation of information about this resource management problem.

The generation of additional information is one of the major outcome potentials of public involvement.

(2) Additional planning objectives.

The surfacing of new concerns or considerations by the public relating to the plans and the incorporation of these concerns in the development and/or evaluation of the plans is another major public involvement outcome potential.

(3) Change in number of planning or decision options (alternatives).

Given the additional data from 1 and 2 above it is conceivable that the number of planning or decision options (alternatives) will change. The change could be a decrease if additional information proves a previous alternative to be not feasible.

(4) Adjustment in Forest Service position on this issue due to public involvement.

If new data is provided through the public involvement process and/or new decision options are generated, it might lead to a change in Forest Service position on the issue.

(5) Adjustment in decision on this issue due to public involvement.

If the Forest Service position on the issue has changed, the decision outcome might also change as a consequence. This decision outcome might be positive or negative as seen from the point of view of the Forest Service.

(6) Change in resource protection.

If a plan or management decision is changed or modified due to public input the resource protection may increase or decrease.

(7) Change in resource yield.

If public input results in a change in the land use (resource) plan or action, changes in resource output (yield) may be a consequence.

(8) Confidence in this Public Involvement Process (event) by Forest Service personnel and by the public.

Actual involvement might alter the public's or the Forest Service officers' previously held level of confidence in the public involvement process.

(9) Confidence in the other party's competence to understand and deal fairly with the resource issues.

Forest Service confidence in public and public confidence in the Forest Service should be ascertained. The interactions and/or collaborations between Forest Service personnel and the public may alter the confidence that each party has of the other's competency to understand and to deal fairly with a resource issue.

La Page (1975, 1977) made several significant discoveries regarding confidence in Forest Service administration by the public. He found that "confidence was increased by agency openness and by exposure of the public to competent agency officials" (p. 86). But he surmises that a similar gain in confidence might have been

achieved "through a vigorous public relations and public education effort effort . . ." since an uninformed public may see their contribution to competent officials as only trivial additions. He supports this further by noting the low response rate and poor response quality in many public involvement activities.

La Page also found that increased confidence in Forest Service management was greatest for those participants who (1) had the least intensive (i.e. single) exposure to the public involvement process, and (2) agreed with and supported public involvement for policy development. He rationalized that the reduction of confidence in Forest Service management with more intensive participation stems from a greater realization of the complexity of problems and the imperfection of most solutions based on compromises.

La Page reported a third related finding: The segment of the public which agreed with the final policy statement showed increased confidence in Forest Service management. Those whose suggestions were not adapted in the final statement reported decreased confidence and satisfaction (p. 100).

These findings are in conflict with the more frequently heard statements of the public's desire to participate and "have a voice" even if uninformed. And that the felt needs of the public should have at least equal, if not greater, weight than the professional judgements of agency managers.

How Public Confidence in the public involvement process itself and in Forest Service managers changes after participating remains, therefore, a valid and as yet unresolved question.

(10) Dealing with concern and conflict.

Other surveys suggest that public involvement may surface more conflicts but that the collaboration between the public and the land managers may help to reduce or resolve the conflict. This criterion attempts to assess whether there was conflict surfaced and whether it was resolved.

(11) Forest Service leadership in public involvement within executive agencies.

An indirect outcome of success in public involvement is the identification of the agency as a leader in this activity. Criterion #11 tries to assess this.

(12) New communications between Forest Service and public traceable to this public involvement event.

Successful public involvement should have consequences beyond the immediate issue. One of these could be the establishment of new or continuing communications between the Forest Service and the public.

(13) Changes in Forest Service initiatives, other than listed in 12 above, due to public involvement efforts.
Has the Forest Service made new initiatives after completion of the public involvement process? Such initiatives should be identified.

b. Listing of Criterion Measures

Appendix D shows the above thirteen criteria with the associated measures by which changes in public involvement effectiveness can be evaluated. These measures are designed so that the corresponding data (i.e. answers to a questionnaire) are available to the Forest Service officer who is responsible for planning and evaluating his unit's public involvement effort.

CHAPTER IX

RECOMMENDATIONS

This is not a prescriptive report. The emphasis is on broadening understanding of and sensitivity to the components, potentials and constrainst of the Inform and Involve process.

The report "Public Involvement and the Forest Service" (Hendee et al. 1973) made 17 major recommendations, most of which are still valid today.

The 1974 Guide to Public Involvement in Decision Making and the 1977 Forest Service Inform and Involve Handbook provide numerous aids, leads and suggestions which will measurably assist in the planning and management of the public involvement process.

There are, however, several additional points that may not have been adequately treated.

1. The objectives of the Inform and Involve program are still frequently misinterpreted by public and Forest Service participants alike. This leads to sometimes fatal role confusion between the public and agency participants.

Recommendations:

1a. I&I publications, training aids and personal instructions must explicitly emphasize what the I&I program objectives are and what they are <u>not</u>.

1b. All potential agency I&I program leaders, facilitators, chairpersons, etc. must have detailed training (possibly including role playing) to assure security in their role perception and actualization.

2. Each situation for which a public involvement process is mandated or desirable requires an individualized multi-step strategy plan to assure that the most suitable action alternative is selected at each step of the public involvement process.

Recommendations:

2a. The Office of Information should develop a strategy plan outline and check list for each critical step in the Public Involvement Process (See Figure II-1 of the I&I Handbook for process steps).

2b. Each major step of the public involvement porcess, and certainly each public involvement event should be followed by a critique to analyze the strengths and weaknesses.

2c. The strategy plan must be reevaluated after each step in the process and midified as the dynamics of the ongoing public involvement activity dictates.

3. Many I&I program managers become familiar with too limited a number of involvement techniques and use these exclusively even when not most suitable to the problem, situation and adopted strategy.

Recommendations:

3a. Every situation calling for public involvement should be analyzed and a systematic search for the most suitable public involvement process should be instituted.

3b. Training must be provided in process search techniques and in the use of the search guides provided in the I&I Handbook and in this report.

4. Experiences gained by our field units in conducting public involvement programs are neither systematically evaluated nor recorded for learning improvement.

Recommendations:

4a. Design and install a systematic evaluation program for the public involvement program and provide the findings to members of the Forest Service and others interested in improving public involvement processes.

4b. Consider using the public involvement event effectiveness evaluation proposed in this report.

APPENDIX A

PUBLIC INVOLVEMENT TECHNIQUES

A. FACTORS TO CONSIDER IN SELECTION OF TECHNIQUES

Table A1 is a listing of the major public involvement techniques, exerpted from the literature on public participation in planning and decision making (Yukubousky, Warner, Runyan, and Forest Service Guide to P.I.). Since the main purpose of public involvement is to channel information, we have identified three primary categories: Information giving, information receiving and interaction, designeate by Roman numerals. Our next category, designated by capital letters, enumerates costs to the Forest Service and to the public, both in terms of time and money. And finally our third category, designated by Arabic numerals, is by cost to the public.

Columns 1-7 describe additional characteristics of the various processes.

Column 1. Number of people reached - Some techniques are more suitable for dealing with a smaller group of people, while others allow the simultaneous contact of a large number of people.

This variable identifies whether a specific technique lends itself best to large, medium or small groups. These are identified as: L (large) = over 500; M (medium) = 51 - 500; S (small) = under 50 people.

Column 2. Special Facilities Required - Certain types of public involvement processes do require facilities not routinely available to the Forest Service. For example, charettes lasting one weekend may have to accomodate

100-150 people, and lodging, food and first aid are needed. Routinely available facilities such as meeting rooms, station wagons, etc., have been classified as "no special facilities" in column 2.

Column 3. Special skills required - Although any group process requires the use of people skilled in the conduct of public involvement, some techniques require the assistance of technical experts such as computer or management specialists. Those techniques relying on such expertise are designated in this column by the letter "S". The others requiring a skilled moderator or facilitator are designated by the letter "G".

Column 4. Planning Phase - Most public involvement techniques can be used at any planning stage, but some are more suitable to a specific stage. The planning process consists of these three phases (refer also to Chapter IV):

1) pre-planning
2) plan-formulation
3) plan evaluation

We have labeled the techniques which are suitable to these various phases with corresponding numbers shown above. For example, a public hearing is a formal procedure prescribed by law and is generally conducted during the plan evaluation phase. It is, therefore labeled 3. A field trip, however, can be conducted effectively at any stage, and is therefore labeled 1, 2, 3.

Column 5. Structure - Some public involvement events may need to be completely structured. The exact topics and the time in which they are to be covered are specified. Frequently workshops are organized around a tight schedule with thirty minutes or an hour allotted to a given topic. Such a structured event is labeled T or "tight". Where less stringent topic and time control is required, a general outline may suffice. These are labeled L for "loose". Those that don't require a structure are left blank.

Column 6. Grouping: Size - A group of eight or fewer individuals is considered to be small; a group of nine or more is defined as large. These group sizes are arbitrary rather than prescriptive, therefore a small group could vary from four to ten, and the optimum number will depend on the particular circumstances.

Column 7. Grouping: Composition - The Forest Service does not select the attendees in most public involvement events, therefore the randomness of the group is not guaranteed. A special case under random group classification is the stratified random group, which is accomplished by choosing a number in proportion to the number of people in that stratum to the total population that is of concern. Some of the strata are fairly homogeneous while others are not, thus the random sample should also be modified by this internal inconsistency, i.e., the more inconsistent a stratum, the larger the regional sample.

Techniques of Public Involvement	Number of People Reached	Special Facilities Required	Special Skills Required	Planning Phase	Structure	Grouping	
						Size	Composition
	1	2	3	4	5	6	7
I. Information Giving							
A. Low Cost to Forest Service							
1. Low Cost to Public							
a. DIRECT MAILING	L	NO		1,2,3			
b. EXHIBIT	M	NO		1,2,3			
c. FIELD TRIP	S	NO		1,2,3			
d. PRESENTATIONS TO SCHOOL CHILDREN	M	NO	G	1,2,3	L	S,L	R,N
e. RESPONSE FORMS	L	NO		1,2,3	L	S,L	R
f. SPEECHES AND PRESENTATIONS TO ORGANIZED GROUPS	M	NO	G	1,2,3	L		
B. Medium Cost to Forest Service							
1. Low Cost to Public							
a. MEDIA PRESENTATION	L	YES	S	1,2,3	T		
C. High Cost to Forest Service							
1. Low Cost To Public							
a. MEDIA PRESENTATION	L	YES	S	1,2,3	T		
b. OMBUDSMAN	S	NO	G	1,2,3			
c. PUBLIC INFORMATION SOURCE	S	NO	G	1,2,3			
II. Information Receiving							
A. Low Cost to Forest Service							
1. Low Cost to Public							
a. AMENITY TRADE-OFF	M	NO	G	1,2,3	L	S,L	R,N
b. PRESS RELEASES INVITING COMMENTS	L	NO		1,2,3			
2. Medium Cost to Public							
a. Delbeq Technique	M	YES	G	1,2	T	S	R,N
3. High Cost to Public							
a. PUBLIC OR SEMI-PUBLIC ORGANIZATIONS PREPARE INFORMATION	L	NO		1,2,3			
B. Medium Cost to Forest Service							
1. Low Cost to Public							
a. SURVEY QUESTIONNAIRE	L	NO		1,2			

Table A-1: FACTORS TO CONSIDER IN SELECTING P.I. TECHNIQUES

S-SMALL
M-MEDIUM
L-LARGE

BLANK-NONE
S-TECHNICAL
G-GROUP LEADERSHIP

1-PRE-PLANNING
2-PLAN FORMULATION
3-PLAN EVALUATION

BLANK-NONE
L-LOOSE
T-TIGHT

BLANK-NONE
S-SMALL
L-LARGE
GROUP SIZE

R-RANDOM
N-NON-RANDOM
COMPOSITION

Techniques of Public Involvement	Number of People Reached 1	Special Facilities Required 2	Special Skills Required 3	Planning Phase 4	Structure 5	Grouping: Size 6	Grouping: Composition 7
III. Interactive							
A. Low Cost To Forest Service							
1. Low Cost to Public							
a. COMMUNITY LISTENING SESSION	M	NO	G	2	L	S,R	R,N
b. LISTENING POST	M	NO	G	1,2,3		S,R	R,N
c. PUBLIC MEETING	L	YES	G	2	T	L	R
2. Medium Cost to Public							
a. AD HOC COMMITTEE	S	NO	G	1,2	T	S	N
b. ADVISORY COMMITTEE	S	NO	G	1,2	T	S	N
c. COMMUNITY LED SEMINAR	M	NO	G	1,2	L	S,L	R
B. Medium Cost To Forest Service							
1. Low Cost to Public							
a. RESPOND TO INQUIRIES FROM PUBLIC	L	NO		1,2,3			
b. SERVICE ON LOCAL AND REGIONAL COMMITTEES	S	NO		1,2,3			
2. Medium Cost to Public							
a. CITIZEN FORUM	L	YES	G	2	L	L	R
b. CONTACTING KEY CITIZENS	S	NO	G	1,2	L	S	N
c. DELPHI METHOD	M	YES	G	2,3	T	S,L	N
d. DIALECTICAL SCANNING	M	NO	G	2,3	L	S,L	R,N
e. IMPACT AND ALTERNATIVE ANALYSIS	L	NO	G	2,3	T	S,L	R,N
f. IMPACT ASSESSMENT	M	YES	G	2,3	T	S,L	R,N
g. NOMINAL GROUP	M	NO	G	2	T	S,L	R,N
h. PUBLIC HEARING	L	YES	G	3	T	L	R
i. SCENARIOS AND SURVEYS	M	NO	G	1,2	L	S,L	R,N
j. SYSTEM FOR EVENT EVALUATION (SEER)	M	YES	G	2,3	T	S,L	N
k. WORK MEETING	S	NO	G	2	L,T	S,L	N
l. WORKSHOP	S	NO	G	2	L,T	S	R
3. High Cost to Public							
a. TASK FORCE	S	NO	G	1,2	L	S	N
b. WORKSHOP	S	NO	G	2	L,T	S	R
C. High Cost to Forest Service							
1. Low Cost to Public							
a. PARTICIPATORY TELEVISION & RADIO	L	YES	S	2	T	S	R
2. Medium Cost to Public							
a. PARTICIPATORY TELEVISION & RADIO	L	YES	S	2	T	S	R
3. High Cost to Public							
a. CHARETTE	M	YES	G	2	L	L	R
b. WORKSHOP	S	NO	G	2	L,T	S	R

Table A-1 (contd.): FACTORS TO CONSIDER IN SELECTING P.I. TECHNIQUES

S-Small
M-Medium
L-Large

Blank-None
S-Technical
G-Group Leadership

1-Pre-planning
2-Plan Formulation
3-Plan Evaluation

Blank-None
L - Loose
T - Tight

Blank-None
S-Small
L-Large
GROUP SIZE

R-Random
N-Non-Random
COMPOSITION

B. DESCRIPTIONS OF TECHNIQUES IN ALPHABETICAL ORDER

Ad Hoc Committee - (See Advisory Committee for basic format and regulations governing representation.) Ad Hoc Committees must comply with the Federal Advisory Committee Act, the only essential difference being that ad hoc committees are disbanded upon completion of the study, or when recommendations for a specific issue are completed.

Advisory Committee - An Advisory Committee is any committee not composed totally of Forest Service officers or employees, set up for the purpose of obtaining advice or recommendations. All meetings are public except under special conditions, such as a contemplated personnel action, and must be publicized in the Federal Register. Membership must be approved by the OMB, the Washington Office and the Administrative Management Staff and must be fairly balanced in terms of representation of different points of view. Conflict of interest as well as overrepresentation of one special interest group must not occur when selecting committee members. Minorities and women must also be reasonably represented, to the degree that they are affected by the work of the committee.

National and Statutory advisory committee members are appointed by the Secretary of Agriculture; regional, state and local are appointed by the Forest Service official responsible for the committee. All the proposed committee members must be cleared through the Secretary of Agriculture.

Advisory Committees can be used to bring more insights into community values and how they affect the decision to be made. The committee gathers data, reviews community plans, distributes information, looks for impacts, and analyzes and helps devise alternatives. Its most important function is to react to proposals, giving a preview of how the community at large will react.

Amenity Trade-off - Amenity trade-off is a game in which the participants are asked to allocate a fixed sum of money among various alternatives leading to improvements in service or other features called amenities. By assessing the way people allocate money between amenities the Forest Service can find out where preferences lie and which amenities are equally rated. For example, in recreation or campsites, does the public prefer easier access or less crowding. (O'Riordan 1971).

Charette - Large segments of a community work in a short but highly intensive effort to solve a particular community problem. It is a brainstorming process of producing plans within a short deadline. Community residents or local officials work together to develop a range of alternatives or to stimulate discussion of their respective consequences.

Citizen Forum - Citizen forums are similar in format to public hearings, but are less formal and not legally mandated. As in public hearings, testimony or comment on any issue relating to related topics is sought from members of the general public and

public interest groups.

Brochures are sent through mailing lists and to known public interest groups well in advance of the forum date. Participants are usually required to preregister and indicate their intention of making a statement.

Some forums incorporate workshops or other small group activities in order to more completely develop ideas presented by speakers.

Citizen forums are similar in format to public hearings, but are less formal and not legally mandated.

Community led seminar - The seminars are organized by the people in the neighborhood rather than by the Forest Service. The purpose of the seminar is to identify community problems and the consequences of proposed alternative solutions.

Community listening session - Designated Forest Service employees make extensive community contacts to seek out reactions to Forest Service proposals. Preliminary recommendations or alternatives are generally presented to stimulate or catalyze citizen's thinking.

Contacting key citizens - These individuals are considered to be spokespersons or opinion makers for one or more groups, whether they are organized or not. They could be formal or informal leaders that a group tends to follow. Contacts should include persons with

regional and metropolitan interests as well as individuals with neighborhood, local or property interests. Those interests which are potentially adversely impacted are especially important to contact. Neighborhood associations, civil rights groups, environmental councils, business organizations and local officials can assist in identifying key individuals. These individuals can be used in helping to develop community participation mechanisms, and in planning the agenda.

Delbecq Technique - This technique can be used to structure analysis of impacts. After receiving information on the proposed project, the participants are assigned to teams of six to nine individuals (randomly or according to important characteristics such as age or profession). Individuals then list all social impacts they feel will occur as a consequence of the project. This is done in silence, taking each team 15-30 minutes to complete. Each team member then reads his items, which the moderator posts. Debate is avoided during the posting. Each point is then discussed and the moderator attempts to encourage elaboration of impacts rather than attack and defense. A voting period follows, each individual listing the most important impacts. A second vote could be used to assess which impact will most likely occur. (Tersine and Riggs 1977).

Delphi Method - The Delphi Method is a technique for obtaining the most reliable opinion of a panel of experts, given a difficult, but not explicit or clearly understood issue. A panel of experts rarely, if ever, meets jointly but each acts as an independent evaluator. A questionnaire is generally prepared on the issues in such a manner so that each evaluator can provide relevant information (e.g., cost or time estimates, priorities, significance ratings, etc.) on each issue or segment of the issue. The answers are then returned to a central office which tabulates them and then discloses the spread of responses as well as central tendency of the participants. If the reliability of the central tendency (mean answer) is too large, the panel members are requested to re-evaluate each question in light of the provided statistics. A new analysis of the answers is made and distributed. The process is repeated upon requests for further analysis until either there is sufficient convergence of the answers or it becomes obvious that the panel has reached a static point. It is felt that the respondents are influenced to a certain degree by reading the answers of their unknown peers, and after several repetitions of the process, agreement is reached. Although this method seeks to create agreement among experts, concensus is not necessarily a goal.

Delphi conferencing can be conducted by means of computer timesharing which has the advantage of eliminating time delays between repetitions of the process as well as distance constraints. It allows group communication, yet preserves anonymity, therefore avoiding group or status pressures to influence participants' decisions.

(Jenkins and Riggs 1977).

Dialectical Scanning - This is basically a group discussion technique using a moderator which proceeds in two parts:

1) The proposal is presented and discussed, identifying impacts that may occur and those on which there is a difference of opinion are singled out for further debate.

2) An attempt is made to resolve the differences indicated in step 1.

Frequently planners and the public each speak "different" languages, and communication is impeded by misunderstandings of the perspectives that each side takes. Dialectical scanning helps identify areas of conflict such as differences of opinion regarding impacts, so that debate can focus on them. A trained moderator can facilitate the use of language that is more conducive to both sides understanding of the issues, and thereby better focusing the discussion and perhaps avoiding unnecessary controversy.

Direct mailing - Letters, brochures, new letters, reports, etc., can be mailed directly to a sample of residents, which can be drawn from voting records or the city directory.

Exhibit - Pictures, graphic layouts, and maps that can be readily understood by the public are displayed in libraries or other public buildings.

Field Trip - Select public's visit the site of a proposed plan thereby enabling them to experience directly the environment where plans or decisions are pending. By seeing the problem first hand, members of the public can draw more informed conclusions.

Impact and Alternative Analysis - (Also known as Factor Profile) A profile consists of a listing of factors or elements that are consequences of following a plan. The primary factors are the cost consequences (which include benefits) of the proposal on the users and the community, e.g., increase or loss of recreational facilities, increased or decreased fishing potential. Description of costs can be in dollars or some other measure.

Another factor is the time period during which these benefits and costs are experienced by the public. Besides these consequences, other factors such as costs of doing the job may be of interest to tax payers and can be included in the profile.

These profiles can be constructed for each alternative from the viewpoint of each interest group, since neither costs or benefits are neutral. A composite profile could also be prepared showing the total effect for each factor.

A preference ranking of alternatives can be derived for each viewpoint, and where there are areas of disagreement, the factors responsible for such conflicts, along with the reasons for them, can be explicitly pinpointed. (Oglesby, et al.).

Impact Assessment - IMPASSE, an impact assessment game is a simple group interaction device that structures discussion and provides estimates of impacts for one or more proposed policies or projects. The participant public is divided into teams. Each team is given a list of potential impacts compiled before the "run" by the Forest Service planner and asked to score each indicated impact according to its positive, negative or neutral value, and its severity. Each team must agree on these scores. The scores for the various teams are then added or otherwise aggregated to provide an overall score for each impact. Each "run" takes one to two hours.

The process of discussion during and after each "run" is more valuable to the group than the impact scores themselves.

Impact Assessments serve to identify potential problems stemming from a proposed project, which can then be addressed. Since local groups provide the assessment, they introduce their values, experiences and perspectives into decision making, enriching the quality of the planning activity.

Listening Post - This is a technique for gathering information by actively searching out local populations in their own environment to listen to their concerns and opinions. Such a process would need to be conducted informally but not clandestinely. In many instances Forest Service employees already belong to clubs and societies or attend events where concerns and opinions about natural resource management are freely discussed. Such data gathered during "social" events need to be recorded instead of lost.

In some instances, such as the need to gather information about concerns and opinions of minority members, such a natural mixing may not exist, or be feasible. Special efforts may be necessary, such as actively seeking out minority members in their own environment rather than waiting passivley for their participation in advertised public involvement events.

Since many minorities live in urban areas, one future focus for such an approach is via the Forest Service's Urban Forestry Program.

Listening Sessions - Members of the public with expertise in a given area of interest to the Forest Service are invited to attend one or more meetings with a line or staff officer. The purpose of the meeting is to seek out public reactions to Forest Service proposals in discussion with the Forest Service official responsible for the project. Although these meetings are not legally closed, they are not usually publicized.

While more often individuals representing conflicting points of view are not invited simultaneously, this possibility is not ruled out. But the structure of the listening session does not lend itself to resolution of conflicts.

Media Presentations - Media presentations consist of announcements or programs on television and radio, or articles in newspapers and magazines. The Forest Service may not request radio or television stations, or the press to present such material, but it can make the material available in such an attractive manner that the media will find it interesting and use it.

The Forest Service cannot demand, and is not permitted to buy ad space or air time. All 30 or 60 second information spots on radio or television are handled through the National Advertising Council, which provides for the dissemination of public service messages by the commercial media.

The Forest Service must pay for the production of the presentations either by contracting out or producing them inhouse.
If the Forest Service provides material to the press, it can request review rights; it has, however, no control over editorial content.

Nominal group - This technique is similar to the Delphi Technique, except it can be used in working with members of the general public. A large number of participants, not necessarily experts on a given issue, meet as a group where they present their ideas orally or in writing, without audience reaction. The ideas are then summarized in such a way as to make them easily visible to the audience. This summary is discussed for clarification and the group rates or votes on the ideas as a form of group evaluation.

Ombudsman - Establish the position of ombudsman who investigates and responds to complaints by individuals and groups. Althouth he operates inside the agency, he is charged with the responsibility of responding to public complaints. His presence tends to humanize the inherently impersonal bureaucracy by identifying an always accessible individual. It also provides the Forest Service with continuous insights into public anxieties and dissatisfaction, thereby gaining the opportunity to "defuse" them before they become too serious.

Participatory television and radio - A listening session may be televised or a special program telecast which illustrates problems or choices which must be made. Response forms may then be mailed or distributed as a newspaper supplement to be completed and mailed back for tabulation after the telecast. In a subsequent telecast, after the response forms are tabulated, one could discuss the nature and significance of citizen responses. Home viewers could be allowed to phone in their comments during a televised listening post.

Presentations to school children - Forest Service representatives can arrange films, lectures or demonstrations for children and young adults. Workbooks or coloring books can be distributed to familiarize students with the issue.

Press releases inviting comments - Newspaper or magazine space could be donated (through the National Advertising Council) briefly describing a proposal and listing a set of outcomes. The public is invited to mark the most desired outcome and send it to a designated Forest Service office.

Public Hearing - A legally mandated formal session giving the public an opportunity to present comments on a Forest Service decision. Forest Service representatives do not offer counter arguments, they only listen to and record public reaction. A hearing should be run by a completely disinterested party, and the testimony recorded verbatim by a court recorder.

Public Information Source - An individual is designated to respond to individuals who walk into the office, to answer general inquiry letters, and refer telephone callers to persons best able to help.

Public Meeting - These meetings are attended by a large number of people, and provide a format for members of the general public to orally express their views. Members of the audience are encouraged to ask questions for clarification.

Usually a planning specialist or some other staff officer acts as moderator or chairman. Audience questions directed to speakers are channeled through the moderator so that personal attacks against speakers' integrity can be minimized and the number of emotional or unsubstantiated statements reduced.

Because large groups do not allow for more intimate discussions and examinations of issues and the relevant data, and instead tend to be directed more towards grandstanding, these meetings tend to be less constructive than smaller group activities such as a workshop.

Public or semi-public organizations prepare information - Interested groups such as environmental, business, sportsmen's clubs or individuals often gather data and compile information on specific areas of interest to them. They are therefore also a good data source for the Forest Service.

Response forms - These forms may accompany literature describing an issue, thereby enabling the public to register its opinions and make suggestions. Response forms must adhere to requirements put forth in FSM 1626.42b.

Scenarios and Surveys - A scenario is an outline or synopsis of an event depicting the environmental and perhaps economic impacts of a proposed project. Such a depiction is presented to one or more groups and a survey is made of their opinions regarding the likely

social, economic or other relevant impacts of the proposal.

Service on Local and Regional Committees - Serving on local or regional planning committees provides an excellent opportunity for the Forest Service to participate in land use planning. It can also be a good source of information on current attitudes and interests of local and regional leaders. Forest Service employees can serve on these committees either in an official capacity or as private citizens.

Survey questionnaires - A group, or a sample thereof, is interviewed in person or through a questionnaire. Opinion surveys attempt to elicit responses to, or preferences about, specific issues or facts. Attitude surveys tend to elicit more generalized sentiments. Surveys can be done randomly or in a stratified random grouping. A stratified random sample is achieved by chosing a number in proportion to the number of people in that stratum, as related to the total population that is of concern. Although some of the strata are fairly homogeneous, others are not, and the random sample should also be modified by this internal inconsistency, i.e. the more inconsistent a stratum, the larger the required sample. Survey questionnaires must be cleared through O.M.B.

Speeches and presentations to organized groups - Representatives of the Forest Service present lectures (including audio-visual aides) to various community groups, such as the League of Women Voters, Chamber of Commerce, or environmental groups. If appropriate, the Forest Service's position should be stated, but facts and opinions should be clearly labeled.

System for Event Evaluation and Review (SEER) (see also, Delphi Technique) - Participating experts are asked questions in their specialty areas. From these interviews a list of initial forecasts can be constructed similar to the kind derived from the Delphi Technique. This process is a modification of the Delphi Technique and can be followed, if necessary, by a more complete Delphi procedure.

By restricting questions to the participants areas of expertise distorted responses caused by a lack of knowledge are eliminated. Also, by previewing the responses the number of iterations in the Delphi process can be reduced. (Tersine and Riggs 1977).

Task Force - Temporary organizations, preferably including persons of diverse expertise, interests and skills, are formed to solve specific or unique problems. One of the advantages of a task force is that is can catalyze increased participation among a wide variety of interests by providing a nucleus of professionals and key individuals that act as a focal point for communication between the community and the Forest Service. A task force should attempt to include all major interests that have a stake in the decision for which they are providing input.

Work Meeting - A work meeting takes place with key individuals in order to lay the groundwork for future workshops. During this meeting these individuals can produce a preliminary identification

of relevant issues, or can be asked to react to proposed plans. This information will be used to encourage more extensive community involvement.

Workshop - A workshop is composed of small working groups, with or without a resource person, which is given basic data, with an assigned task to react to alternatives and/or to develop new ones. The workshop sessions are usually preceeded by a total group meeting where assumptions, constraints, and other background material is presented. Decisions are made or instructions given on the means to divide the group up into work groups. They can challenge assumptions and collect additional data. At the end of the work session each group can present its product to the general assembly and open the floor to discussions. A series of successive workshops scheduled over a relatively long period of time (6 months) can be used to involve the citizenry throughout the project development sequence.

APPENDIX B

TECHNIQUES USED IN CONJUNCTION WITH PUBLIC INVOLVEMENT

Check Lists - A check list of the social, economic and physical impacts of Forest Service programs is constructed to show their relationship and their relative importance. Impacts of a particular project may be better understood, and time and resources can be better allocated to the most important impact areas.

Cost-Benefit Analysis - The various costs and benefits of a project are separately estimated and discounted to a present value. Since monetary units are used for all estimates, social impacts must be converted to dollar values for inclusion in the analysis.

Cost benefit and cost effectiveness (see below) are similar in that both use cost data. However, while cost-benefit tries to compare alternative projects or programs in terms of its dollar costs and its dollar benefits, cost effectiveness focuses on the dollar costs of a program to achieve certain outputs or goals. Because cost effectiveness does not require dollar estimates of the benefits, it is more directly usable as an impact assessment technique. Special technical skills and a data base are required to perform this analysis.

Cost Effectiveness Analysis - In cost effectiveness analysis the unit cost of output for a proposed service or other program is determined through input-output comparisons on the basis of costs and other effectiveness

criteria. To the extent that future program costs and output can be estimated and quantified, cost effectiveness provides basic comparative information for alternative approaches to a particular problem. It can measure various levels of program output, the costs of such program output, or the costs of alternative programs for a given level of output. It is usually used in situations where the alternative outputs cannot be easily quantified in dollars.

Special technical skills and a data base are required to perform this analysis.

Cross Impact - This technique lists events that may or may not occur (such as potential impacts), plus an estimate of the probability of their occurrence by some specified date. Then estimates of the probabilities of occurrences of all relevant combinations of events are developed, e.g., if a certain impact occurs, what are the probabilities that other impacts will occur. It allows prediction of a potentially complex series of events or impacts that may be interrelated, such as when one impact is conditional upon another.

It is a useful tool intended to improve on techniques which allow discussion and prediction of single events only. If there are many variables and many interactions, the technique can become complex and may require special skills and access to a computer.

Each point of view designs their ideal solution - These various "solutions" enable planners to understand the way each of the various interests perceives

the best solution. A variation may be to start from a given plan and identify features which each interest would like to see added to it, thus making the plan more acceptable. Knowing what the ideal solution would look like from each interest's point of view is still a long way from being able to incorporate all of these "ideal" features into one single alternative. It does, however, sharpen the issues and their consequences.

Educating the public about the decision-making process - The Forest Service should inform the public of how it makes plans and arrives at decisions. Such an information effort should be on-going and intensified if it is judged that the public has misconceptions or lacks knowledge about the Forest Service decision making process. The Forest Service must be prepared to change the decision making process when necessary to conform to changes in public expectations.

Input-Output Analysis - This analysis can measure the inflow and outflow of forestry related products in an area, and is used to predict changes in economic components resulting from Forest Serivce decisions.

The technique can be adapted to assess socio-economic impacts as well as to estimate the social consequences of economic changes.
Special technical skills and a data base are required to perform this analysis.

Looking for Analogies - Explain a complex program by comparing it, point by point with something similar and more familiar to the public. For example, a tree infestation problem may be compared to human disease management. By doing this, the public is better able to understand forest-related problems with which it is not familiar.

Maintain open planning files - This technique attempts to make all relevant project information accessible to the public, and allows an individual to determine and get the amount of information he desires. Open files must be well organized, easily accessible, and understandable so that the public can find the information they are looking for.

Normally project files would be kept in an open Forest Service office. It may, however, be feasible to maintain a full set of files at the local library or other community facility. The act of making all information available to the public is a demonstration of openess and candidness by the Forest Service.

Mapping socio-political and environmental data - Geographic maps can be used to display social, political, or environmental data that are normally presented in tables or text form. These maps are easy to visualize and are therefore an extremely efficient means for communicating information.

Monitoring the mass media - Carefully monitoring and analyzing the mass media allows the Forest Service to learn about community interests, conflicts and values. It provides information on how the agency is viewed

by certain community groups, or it indicates when the agency should enter into certain on-going discussions.

Radio and television--monitor talk shows and new broadcasts. Newspaper and newsletters--extablish clipping files, filed by topic and cross referenced as necessary. Although clipping services may be available, they may overlook relevant articles or may not recognize relevant issues.

Previewing as a check on communication effectiveness - A manuscript, speech, or visual aid presentation should be reviewed by someone less informed about the subject than the intended audience. A reviewer should be asked to identify the essence of the message to the communicator so that any misinterpretation will be evident. The technique is recommended when communication problems are feared. All major public announcements can probably benefit from such pre-testing.

Role-playing - Through role playing, insight into other people's motivation and behavior is gained by "stepping into their shoes". Situations are designed to capture the essence of the real-world relationships which are to be simulated. The various roles that are to be studied via role playing are described, as are the most common interactions between the parties. A background description of the roles is given first, after which the individuals assigned to play each role then play it. The role playing terminates when actors and viewing participants feel that sufficient insight has been generated. Most of the learning for the participants occurs during the discussion and evaluation which follows the role playing. Alternative behavior and possible outcomes can then be explored re-playing with revised roles.

Role playing enables people to gain perspectives by learning to appreciate opposing points of view, and to get a feel for the pressures that may be operating on other actors.

Sensitivity training - This training focuses on interpersonal interactions in a group, where group members observe their interactions with others, as well as the nature of the group process. An experienced facilitator helps members of a group to open themselves up in an effort to understand the dynamics of the group; ususally they try to become more sensitive, more creative, and thereby more responsive. This process improves understanding and rapport within a group by focusing on a number of elements that are present in a group relationship. By understanding their own behavior in groups, Forest Service officials will increase their skill in public involvement processes.

Simulation Modeling - This covers a range of techniques aimed at modeling large-scale social and/or economic systems, sometimes with the intent of predicting the future effect of specified interventions. These models focus on quantifiable human activity such as transportation, land use and employment, although extrapolation into less quantifiable social aspects is possible. Simulations make use of computers and require special design skills.

Value Analysis - Value analysis is a subjective method for ranking consequences of alternative plans. The value of each Forest Service proposal to the public can be assessed by weighing direct and indirect consequences in relation to their effect on public objectives. Each proposal is weighed in terms of its impact on public goals through opinion survey techniques or appointed task forces. For example, commerical interests can evaluate impacts affecting them; local communities can evaluate the impact on them; and environmental groups can assess the environmental impact.

APPENDIX C

LISTING OF PUBLIC INVOLVEMENT

CLASSIFICATION AND EFFECTIVENESS VARIABLES

Four sets of variables are listed:

I Issue Variables

II Situation Variables

III Process Variables

IV Effectiveness Variables

This listing is semi-structured for questionnaire purposes. The response alternatives are identified, but instructions are incomplete or totally missing. These would obviously have to be supplied and layout changes would be necessary to convert these lists into an operable questionnaire.

CLASSIFICATION VARIABLES

FOR

PUBLIC INVOLVEMENT EVENTS

I ISSUE VARIABLES

A. DESCRIPTION OF DOMINANT ISSUE

1. Allocation of land _____

2. Allocation of resources on the land

   a. Timber _____

   b. Range _____

   c. Recreation _____

   d. Minerals _____

   e. Water _____

   f. Mixture of more than one _____

   g. Other _____

3. Program Direction _____

4. Internal stimulus (e.g. administrative change) _____

5. External stimulus (e.g. power line) _____

6. Other _____

B. REASON FOR THIS PUBLIC INVOLVEMENT

1. NEPA _____

2. RPA _____

3. Wilderness Act _____

4. National Forest Management Act

5. Consumer Affairs Act _____

6. Chief's Direction _____

7. Local Forest Service policy _____

8. Other _____

Identify _____

C. FOCUS ON PLANNING HORIZON

1. Long range planning (e.g. future use) _____

2. Intermediate range planning (e.g. major activities are planned within next 3 years) _____

3. Near future activity of limited scope (e.g. stream channel enlargement; fencing, road construction) _____

D. PERCEIVED GEOGRAPHIC ZONE OF INTEREST IN ISSUE (Scope of impact)

1. Local _____

2. Geographic region or zone _____

3. National _____

E. TECHNICAL COMPLEXITY OF ISSUE

1. Low _____

2. High _____

3. Estimated number of man hours by staff on this issue before going to public: _____

F. REPETITIVENESS OF EVENT

1. Scheduled routine contact _____

2. Special event _____

G. PUBLIC INTEREST

Perceived intensity of public interest in issue.

	a. Before P.I. event	b. After P.I. event
(1) Low	_____	_____
(2) Medium	_____	_____
(3) High	_____	_____

H. PUBLIC CONCERNS

Number of concerns expressed by public on this issue: _____

I. LEGAL REVERSIBILITY OF DECISION

1. Bound by law _____
2. Non-appealable (Forest Service Administration Procedure) _____
3. Appealable _____
4. If appealable, is this issue now, or is it likely to go to appeal on litigation? yes _____ no _____
5. If yes under 4, indicate which:
   a. Litigation _____
   b. Formal administrative appeal _____
   c. Arbitration _____

J. REVERSIBILITY OF BIOLOGICAL or SOCIAL CONSEQUENCES OF DECISION

1. Irreversible _____
2. Reversible
   a. Low cost or effort _____
   b. High cost or effort _____

K. PREDICTABILITY OF PROBABLE CONSEQUENCE OF DECISION

1. High ($p > .70$) _____
2. Intermediate ($.35 \leq p \leq .70$) _____
3. Low ($p < .35$) _____

L. TIME AVAILABLE BEFORE DECISION MUST BE MADE

1. Very limited _____
2. Intermediate (up to 1 year) _____
3. Over 1 year _____

M. FOREST SERVICE COMMITMENT TO ISSUE RESOLUTION PRIOR TO P.I.

1. One alternative favored by Forest Service _____
2. Several, almost equally attractive, alternatives _____
3. No preference for any alternative or analysis incomplete at at time of public involvement _____

N. CONFLICT SITUATION

1. Between public groups yes____ no____
2. Between Forest Service and public groups yes____ no____
3. Between Forest Service and local public agencies yes____ no____

II SITUATIONAL VARIABLES

A. POPULATION AT LOCALITY OF PUBLIC INVOLVEMENT EVENT

1. Smaller than 10,000 _____

2. Between 10,001 and 100,000 _____

3. Larger than 100,001 _____

B. PARTICIPANTS INVOLVED IN THIS PUBLIC INVOLVEMENT EVENT

1. Number of public participants:

a. 15 or less _____

b. 16 to 35 _____

c. 36 to 100 _____

d. over 100 _____

2. Participant populations involved in the P.I. event (check all participant populations in column 1; then mark in the second column a "1" for the group with the greatest number of participants and a "2" for the next largest group.

	Col. 1	Col. 2
a. Economic interest	____	____
b. Environmentalists	____	____
c. Non-extractive users (e.g. recreationists)	____	____
d. Civic or neighborhood associations	____	____
e. Concerned locals	____	____
f. Scientific/Educational	____	____
g. Elected officials	____	____
h. Key citizens	____	____
i. Public agencies		
(1) Federal (other than Forest Service)	____	____
(2) Other (e.g. State, Local, etc.)	____	____
j. Forest Service Personnel in official capacity	____	____
k. Forest Service Personnel in unofficial capacity	____	____

III PROCESS VARIABLES

A. PURPOSE

Purpose of scheduling this P.I. event or series of events.

a. Information giving (one way to public) _____

b. Information review or reaction (one way from public) _____

c. Interactive or dialogue _____

d. Mix of a, b, c or d _____

B. INFORMATION PRESENTED TO THE PUBLIC

1. Planning data presented to the public:

2. When was the data presented?

	a. Before P.I. Session	b. During P.I. Session
a. None	_____	
b. Resource information and inventory	_____	_____
c. Potential use determination	_____	_____
d. Completed use alternatives	_____	_____
e. Forest Service preferred alternatives	_____	_____

f. Other _____

3. To what extent did this information (in 1 above) meet the public needs for this public involvement event?

a. Too little information _____

b. Correct amount of information _____

c. More information than needed _____

4. If information was made available before the public involvement session (2a above) what was the lead time between providing the information and the public involvement session?

_____weeks _____days

C. PROCESS STAGE

At what stage within the planning process was this public involvement event scheduled?

a. Problems, goal, objective or issue identification _____

b. Data collection _____

c. Data analysis _____

d. Evaluation of alternatives _____

e. Selection of alternative and recommendation for action _____

f. Implementation of action _____

g. Cannot identify _____

D. PRESTRUCTURE

Was this public involvement event:

a. Completely prestructured and scenario was followed _____

b. Completely prestructured and scenario was not followed _____

c. General procedural outline only _____

d. No prestructure _____

E. IDENTIFICATION OF PUBLICS

1. Were the affected publics identified before the public involvement event?

Yes_____ No_____ Don't know_____

2. If 1. was answered yes, were special efforts made to increase the probability that all publics are represented at the public involvement event?

Yes____ No____ Don't know____

3. If 1. was answered yes, the correspondence between these identified publics and actual participants as listed in question II B2. (p. 59) was:

Identical ____

Strong similarity ____

Weak similarity ____

Dissimilar ____

Don't know ____

F. PUBLIC INVOLVEMENT

1. How often did the same public meet for this issue(s)

a. Once ____

b. 2 - 5 times ____

c. 6 - 10 times ____

d. Over 10 times ____

2. Average length of meeting

a. 0 - 2 hours ____

b. 2 - 4 hours ____

c. 4 - 6 hours ____

d. Over 6 hours ____

3. Level of "active" participation by attending public (i.e. asking questions, making statements, etc.)

a. Less than 10% of public attendees ____

b. 11 - 33% of public attendees ____

c. Over 33% of public attendees ____

d. Don't know ____

G. GROUPING

1. Were participants subdivided into groups?

Yes _____ No _____

2. If answer to 1. is yes, what was the average group size?

a. Less than 5 ____

b. 6 - 10 ____

c. Over 10 ____

3. Composition of groups.

a. Random ____

b. Pre-selected

(1) By affiliation ____

(2) Other ____

c. Self-selected ____

4. Did the group include:

a. A Forest Service participant Yes____ No ____

b. Another resource person Yes____ No ____

5. a. Did you obtain external advice or consultation on dealing with the public during this event?

___ Yes ___ No

b. If the answer to 5a. was yes, where did the external resource person come from?

A District	___	A Research Station	___
A Forest	___	S & PF	___
A Region	___	The Washington Office	___
Outside the F.S.	___		

H. FACILITIES

Facilities required for this public involvement event were:

a. Indoor

(1) government owned/leased ___

(2) other ___

b. Outdoor/field ___

c. Both ___

I. COSTS

Forest Service cost directly attributable to public involvement event (i.e. public involvement planning, public involvement data collection and analysis, printing, facilities rental, accomodations etc.) were:

0 - $ 5,000 ___

$5,001 - $20,000 ___

Over - $20,000 ___

J. MEDIA INVOLVEMENT

List the number of articles, programs, news spots, etc., given this event by:

a. Newspapers ____

b. Radio ____

c. Television ____

d. Publications (magazines) ____

e. Other: _____

K. FEEDBACK TO PUBLIC

Do not answer if your answer to question IIIA was a.

1. Was there a formal feedback to the participating publics on their input? ____ Yes ____ No

2. If yes, what was the means of feedback?

a. Newsletter or other correspondence ____

b. Message through media ____

c. Telephone call ____

3. What was the content(s) of the feedback?

a. Acknowledgement of their participation ____

b. List of concerns ____

c. Forest Service reaction to concerns ____

d. List of solutions ____

e. Forest Service decision ____

f. Comments about decision process and use of public inputs ____

g. Other _____

L. POST-PROCESS RETROSPECTIVE

1. In retrospect: Was the public involvement process used suitable for this particular issue?

___ Yes ___ No

2. The participant effort required by the public involvement process for this issue was:

a. From Public participants

(1) Too large ___

(2) Just right ___

(3) Too small ___

b. From Forest Service participants

(1) Too large ___

(2) Just right ___

(3) Too small ___

3. Did the Forest Service staff participating in the public involvement event have sufficient advance training in organizing and managing this process?

___ Yes ___ No

4. Did Forest Serivce personnel make any major errors in executing the public involvement process which may have affected or influenced its effectiveness?

___ Yes ___ No

5. Was the public involvement process critiqued after completion?

a. No formal critique ___

b. Public critique ___

c. Forest Service critique ___

d. Joint Forest Service - public critique ___

APPENDIX D EFFECTIVENESS CRITERIA

CRITERION	MEASURES
1. Generation of information about this resource management problem	How many items of additional information were generated directly attributable to this P.I. process? (1) in correspondence None ☐ A few ☐ Many ☐ Don't know ☐ (2) during meetings with the public None ☐ A few ☐ Many ☐ Don't know ☐
2. Additional planning objectives	(1) List the approximate number of <u>new</u> concerns or considerations which were surfaced by this P.I. process: _____ (2) How many of these were incorporated in the development or evaluation of the plans? _____
3. Change in number of planning or decision options (alternatives)	(1) Number of additional options which resulted from this P.I. process: _____ (2) How many of these were detail analyzed? _____ (Identify a significant change in an existing option as a new option

4. Adjustment in F.S. position on this issue due to public involvement

(1) The F.S. position on this issue after completion of the P.I. process as compared to the prior position is:

the same ☐ changed ☐

(2) If changed, how do you feel about the change?

Positive, more constructive position ☐

Negative, we were forced into this new position ☐

5. Adjustment in decision on this issue due to public involvement

(1) Was the decision on this issue based on new options developed during public involvement?

Yes ☐ No ☐ Don't know ☐ No decision ☐

(2) The decision which would have been made by F.S. with P.I. would have been:

The same ☐ Different ☐ Don't know ☐

(3) If the answer in (2) is "different", how do you feel about the change?

Positive, constructive decision ☐

Negative, our own decision would have been better all round ☐

6. Change in resource protection

(1) Identify the direction of change in expected protection for each resource as a consequence of new information generated during this P.I. process or changes in plans resulting from this P.I. process

CHANGE IN PROTECTION

Resource	Decrease	No change	Increase	Don't know
Timber	☐	☐	☐	☐
Range	☐	☐	☐	☐
Recreation	☐	☐	☐	☐
Wildlife-fish	☐	☐	☐	☐
Water	☐	☐	☐	☐
Minerals	☐	☐	☐	☐
Human+Community Development	☐	☐	☐	☐

7. Change in resource yield

(1) Identify the direction of change in expected yield for each resource as a consequence of new information generated during this P.I. process or changes in plans resulting from this P.I. process

	CHANGE IN YIELD			
Resource	Decrease	No change	Increase	Don't know
Timber	☐	☐	☐	☐
Range	☐	☐	☐	☐
Recreation	☐	☐	☐	☐
Wildlife-fish	☐	☐	☐	☐
Water	☐	☐	☐	☐
Minerals	☐	☐	☐	☐
Human+Community Development	☐	☐	☐	☐

8. Confidence in this public involvement process (event)

a. by F.S. personnel

(1) Estimated number of F.S. initiated P.I. contacts during this P.I. process _____

(2) Effort and $ spent on this P.I. event (data in Section III):

(3) Perceived prevailing confidence of F.S. participants in this P.I. process <u>before</u> P.I. event

Low ☐ Medium ☐ High ☐ Don't know ☐

(4) Perceived prevailing confidence of F.S. participants in this P.I. process <u>after</u> P.I. event

Low ☐ Medium ☐ High ☐ Don't know ☐

b. by the public

(1) Number of people who responded by submitting written material _____

(2) Estimated number of people who spoke out during P.I. event _____

(3) Estimated number of people who stayed after completion of formal P.I. program _____

(4) Number of people who expressed interest in further participating by leaving name and address _____

9. Change, as a consequence of P.I. event, in confidence in other part's competence to understand and deal fairly with the resource issues.

a. F.S. confidence in public

(1) Evaluation by participating F.S. personnel of prevailing public competence before P.I. event

Low ☐ Medium ☐ High ☐ Don't know ☐

(2) Evaluation by participating F.S. personnel of public competence after P.I. event

Low ☐ Medium ☐ High ☐ Don't know ☐

b. Public confidence in F.S.

(1) Estimated number of people who stayed after completion of formal P.I. program _____

(2) Number of people who expressed interest in further participating by leaving name and address _____

(3) Compare public input at beginning with that at the end of the P.I. event on:

	Public input is			
	Same	Increased	Decreased	Don't know
a) data provided by public	☐	☐	☐	☐
b) supportive statements on F.S. position or role	☐	☐	☐	☐
c) objecting statements on F.S. position or role	☐	☐	☐	☐

(4) Media understanding of F.S. position or role before P.I. event comparted to after P.I. event

same	more supportive	less supportive	don't know
☐	☐	☐	☐

10. Dealing with concern and conflict

Which adjective best characterized the dominant public mood during the P.I. event? (Select only one in each column).

	(1) at the beginning	(2) at the end
friendly	☐	☐
interested	☐	☐
curious	☐	☐
neutral	☐	☐
anxious	☐	☐
angry	☐	☐
hostile	☐	☐

(3) Was there a major conflict between the various public and/or the public and F.S. on the resolution of the land management issue before P.I. event?

yes ☐ no ☐ maybe ☐ don't know ☐

(4) Was this conflict resolved at end of P.I. event(s)?

yes ☐ no ☐ maybe ☐ don't know ☐

11. Leadership by F.S. in P.I. within executive agencies

(1) Number of requests to your unit to provide resource people on this P.I. process to other federal or local government units

_____

(2) Number of (favorable) mentions of this P.I. event in the media

_____

(3) Number of (favorable) mentions of this P.I. event in government releases _____

12. New dialogue mechanisms between F.S. and public traceable to this P.I. event

(1) Identify these mechanisms (e.g. regular meetings, advisory groups, new contacts, etc.)

_____

_____

_____

_____

_____

13. Changes in F.S. initiatives, other than listed in 12 above, due to public involvement effort

(submit only once a year)

(1) Anecdotal description of managerial actions taken directly traceable to public involvement efforts (e.g. hiring of additional skills, new training for personnel, development of new programs or processes, new P.I. programs not previously contemplated, etc.).

GENERAL SURVEY QUESTION

1. Public involvement trend at your unit (submit only once a year)	(1) Describe trend in utilizing P.I. processes at your unit over last year. Identify attempts to institutionalize it (if any).

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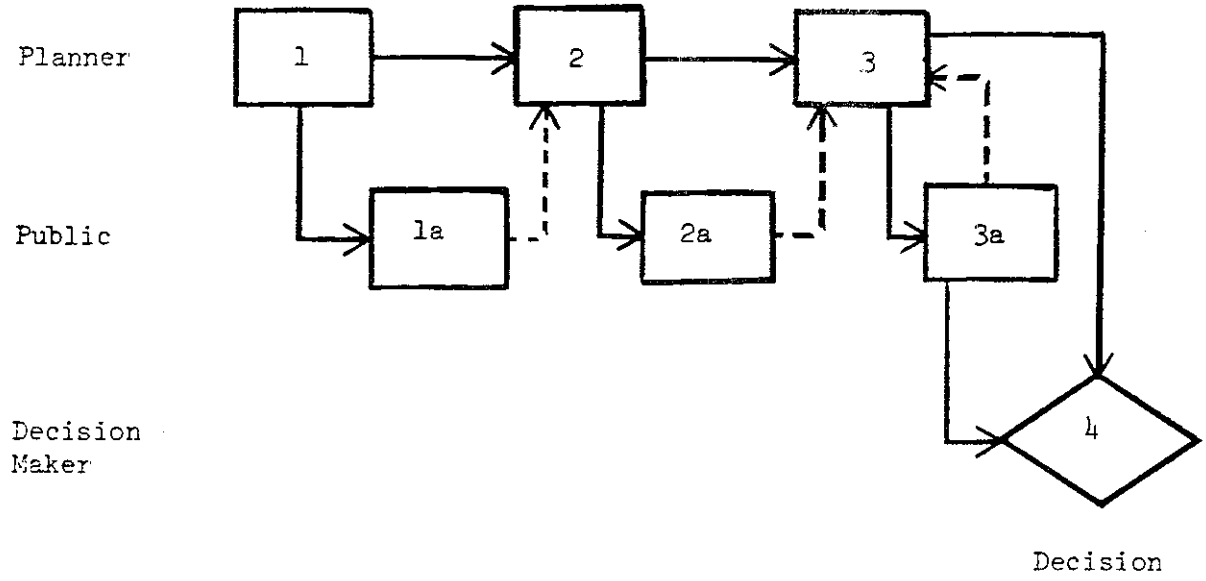

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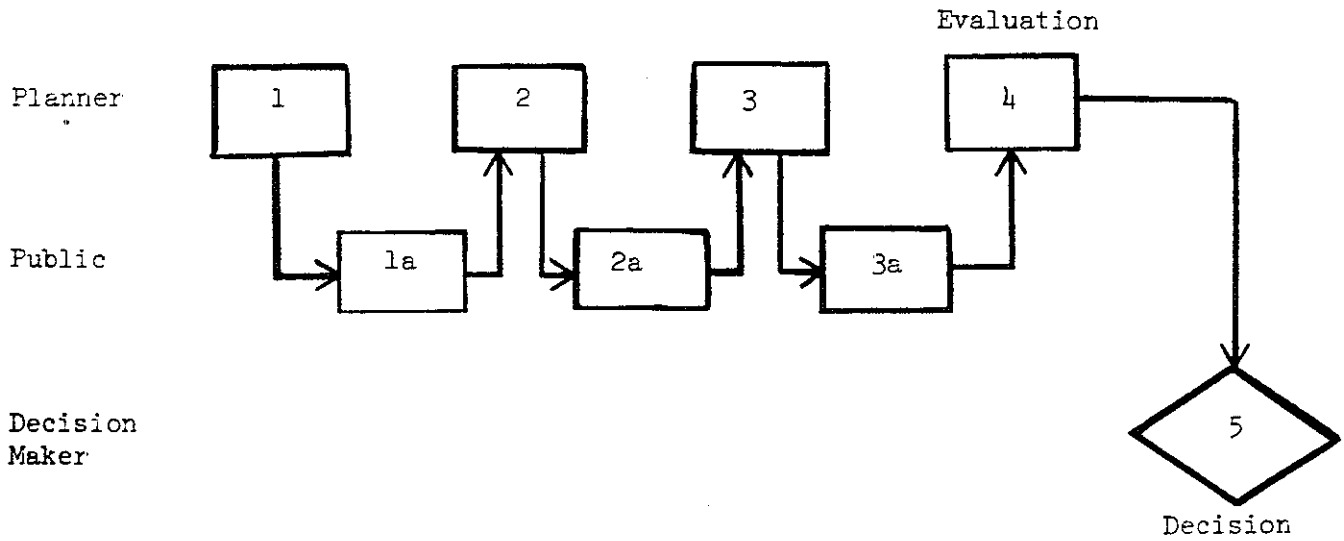

Model 3