interests, organizations, and agencies. Collaborative forest management aptly provides for these needs.

Since its inception in 1992, the model forest concept has grown from an original 10 sites in Canada to over 30 sites in 11 countries (in 2003) with more sites in the planning stages. Clearly this demonstrates that collaborative forest management can be applied and can often flourish in a wide range of geographic, institutional, and cultural settings where the model forest approach is taken. This growth also attests to the relevance and still unrealized potential of collaborative forest management to make lasting and significant contributions to critical internationally shared challenges to achieving SFM in practice.

From the experience of the model forests, resource managers should, with confidence, apply CFM elsewhere in order that CFM increasingly becomes a normal operating procedure rather than the exception.

See also: Social and Collaborative Forestry: Forest and Tree Tenure and Ownership; Joint and Collaborative Forest Management; Social and Community Forestry; Social Values of Forests.

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Public Participation in Forest Decision Making

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Introduction

Over the last few decades, the formal practice and supporting science of public participation have emerged as key components of forest management and decision-making in many countries. The Montreal Process and virtually all certification systems call for appropriate public participation in decisions on forest management. Some cultures and traditional practices have incorporated what we would now term participatory decision-making for centuries. The formal methods and structures used more recently to make decisions in forestry, particularly in western nations, have evolved considerably, with a trend towards more public involvement in decisionmaking. This can be seen at both the local level (increasing control over use of local resources) and the global level (in terms of public opinion affecting policies and practices at the level of the global marketplace).

This article briefly describes potential benefits of applying public participation in forestry, and identifies some key theoretical concepts and broad empirical reviews of practice which inform the field. General findings and emerging principles for public participation are summarized, and criteria for assessing the performance of public participatory techniques and processes are identified. Selected techniques in use in forest decision-making are described briefly, together with indications of their performance where information is available. The article concludes with general guidance from current knowledge on the design of good processes for public involvement in forestry.

This article focuses on the scientifically documented aspects of public participation in forest planning, rather than in the broader arenas of public education and governance. Much of the literature reviewed comes from the democratized and more industrially developed nations, especially applying to the public forests of temperate countries. Many of the principles apply more broadly, however, including to private lands in western nations and forest management in developing countries or nations in transition. Readers should also consult the related articles on community forestry and collaborative management (*see* Social and Collaborative Forestry: Canadian Model Forest Experience; Joint and Collaborative Forest Management; Social and Community Forestry) for more on participatory mechanisms in tropical regions worldwide. It should not be assumed that methods of community involvement in less industrialized nations are necessarily less effective or equitable than those in Europe or North America.

Public participation has been defined by the FAO/ ECE/ILO Joint Committee Team of Specialists on Participation in Forestry as:

various forms of direct public involvement where people, individually or through organized groups, can exchange information, express opinions and articulate interests, and have the potential to influence decisions or the outcome of specific forestry issues.

Public participation is an inherently two-way process, and should not be confused with public relations which attempts to convey information in one direction in a manner favorable to the disseminator of the information.

Stakeholders have been defined as all individuals or organized groups interested in the issue or opportunity driving the participatory process. This includes both recognized 'interest groups' and other, sometimes less visible, sectors of society affected by or concerned with some aspect of forest management.

Potential Benefits of Public Participation

Why is public participation important, and what good does it do? The potential benefits often described include:

- increasing public awareness of forests and forestry among the public through interaction and collaborative learning
- increasing the overall flow of benefits to society by contributing to better decisions and outcomes for multiple forest uses and products, and more equitable sharing of costs and benefits
- improving social acceptance of sustainable forestry through better information and involvement in the decision-making process
- building trust in institutions.

Other practical benefits include gaining information from stakeholders that would otherwise be ignored (e.g., traditional ecological knowledge), and streamlining the process of plan and project implementation by avoiding delays, resolving conflicts among competing interests, and reducing risks of legal action. However, increasingly, there is seen to be an overarching moral purpose in incorporating public values into forestry decisions.

Theoretical Concepts and Broad Empirical Reviews

The scientific background to public participation stems from various sources, many of them outside the field of forestry. Most notably, the science of sociology and the discipline of community and regional planning have contributed to our understanding of participatory mechanisms, though influenced by various social sciences and professions. In less industrialized countries, much knowledge on effective processes has been gained from the broad application of participatory rural appraisal methods for assessing local resources and development options with local community involvement. Public participation in forestry is now conducted by public participation specialists, foresters, planners, and land managers, in addition to social scientists.

The concept of public involvement in forestry has changed considerably since Gifford Pinchot's 'scientific forestry' ethos in the early 1900s, where the public interest was to be served by having experts apply conservation policies that produced the greatest good for the greatest number for the longest time. More recently the public has become increasingly adamant about accountability in government and has begun to demand more direct involvement in the decision-making process. The role of government has evolved from decision-maker based on expert knowledge to that of arbiter among different interests within a pluralist public.

Sociologists have identified two normative models of participation in a democratic political framework where public participation is encouraged: participatory democracy and representative democracy. In a participatory model, the broadest cross-sections possible would be involved in decision-making to be representative of the widest majority in the society. Several challenges face this model, including the reality that individual citizens may not have the time, knowledge, or interest to participate in resource decision-making. The alternative normative model is representative democracy, which suggests that to compensate for the lack of capacity to participate in multiple decision-making activities, individuals join together in forming or supporting various interest groups which, in combination, can fairly represent the balance of individual interests in society.

Specific theoretical frameworks have been developed which attempt to explain or structure the range of participatory processes, in various settings. Sherry Arnstein in 1969 developed a ladder of public participation (Figure 1) which described the role of citizens in decision-making, ranging from nonparticipation, through token participation, to degrees of



Figure 1 Arnstein's ladder of public participation. (Reproduced with permission from Arnstein SR (1969) A ladder of citizen participation. *American Institute of Planning Journal* 35(4): 216–234.)

citizen power. While this typology has been criticized for creating unrealistic expectations that citizens could or should make public policy decisions, it has also been praised for its simplicity, and continues to be one of the most widely cited references in public participation literature.

Another model, developed in the 1970s, was the widely tested Vroom-Yetton Model, originally designed to assist business managers to determine what level of participation by subordinates (on a scale similar to Arnstein's ladder) would improve the effectiveness of decision-making in the corporate business setting. Attempts have been made to adapt the Vroom-Yetton Model to the needs of natural resource management; in one such application, R Lawrence and D Deagen developed a scheme for managers to determine whether and how public consultation should be used, using a hierarchy of questions addressing the likelihood of public acceptance of management actions, the manager's knowledge of salient public preferences, the likely benefits of public learning on the issue, and other aspects relating to efficiency of the process.

Beierle and colleagues have developed a framework for evaluating public participation in environmental decision-making which can be directly applied to forestry. This framework recognizes three major components: context, process, and results. Context refers to all the conditions or features of a given situation that a public participation process should address, such as the institutional setting and history of prior participation or conflict. Process encompasses what actually happens in a participatory program of exercise, including the kind of participation mechanisms used and various associated factors which influence their effectiveness, such as responsiveness of the lead agency. Results refer to the outcomes of the context and process, in terms of the decisions or actions enabled, the

relationships built among the participants, and capacity-building achieved through the process.

Empirical reviews have also sought to develop classification systems for participatory mechanisms. Thomas Beierle and Jerry Cayford recognized four categories of participatory mechanisms to address environmental issues: public meetings and hearings; advisory committees not seeking consensus; advisory committees seeking consensus; and negotiations and mediations (seeking consensus). They described these mechanisms by relating the number of participants to be involved with the level or intensity of involvement desired. The FAO/ECE/ILO Joint Committee Team considered public participation that was specific to forestry in 13 countries, and identified several types of participation at various levels from national to local; types of public involvement processes included (1) those addressing forest policies, programs, and plans, (2) those promoting specific forest projects, (3) those used in audits of forestry projects or practices, and (4) those involving advisory boards or permanent councils. Max Hislop and Mark Twery, working at the UK Forestry Commission, produced a menu of participatory techniques, with matrices that arrayed appropriate techniques against the various stages of the decision-making process and the number of stakeholders to be involved.

A simple classification that has been suggested by various authors and researchers to describe participatory methods recognizes three typical levels of involvement: information exchange or directive participation (where information is communicated primarily in one direction); consultation, where public opinions are sought and considered in expert or managerial decision-making; and collaboration, where representatives of the public are involved actively in developing solutions and directly influencing decisions. Figure 2 presents a simple scheme using this classification, and listing various techniques (some of which are described below) under each level of involvement. In addition, mechanisms providing fuller control of decisions to public groups (such as Community Forests) are described in articles (Social and Collaborative Forestry: Joint and Collaborative Forest Management) and (Social and Collaborative Forestry: Social and Community Forestry).

Many examples of particular participatory techniques have been documented in various ways in the scientific and professional literature. Apart from occasional illustrative examples, this article draws primarily on the broad reviews mentioned above, as well as a recent review of public processes conducted by the author and other researchers in British Columbia. These sources include empirical studies, normative papers, and professional practice.



Figure 2 The public participation continuum. Courtesy of Forest Investment Account and Slocan Forest Products. Derived in part from Hislop M and Twery M (2001) A Decision Framework for Public Involvement in Forest Design Planning. Final Report Prepared for Policy and Practice Division. Roslin, UK: Forestry Commission.

The concepts and methods applied to public participation in forestry also relate strongly to other allied regulatory processes in certain jurisdictions, e.g., environmental and social impact assessment, land use and resource planning, and sustainability assessment, certification, and monitoring.

General Findings and Principles

This section describes some of the patterns of use of participatory approaches in forestry, general findings on the performance and quality of participation, and principles for successful participation which emerge from the current state of our knowledge.

The FAO/ECE/ILO review of studies from various nations suggested that participatory processes in forestry occur at all levels from national to local, but most commonly at the regional and local levels. These processes appear to be affecting decisions in most cases. Public participation applies both to public and private forestry, though often with different purposes and constraints: not surprisingly, more effort is expended in public involvement on public forest land than on private land. Public processes range from the formal to the informal. They may be part of the statutory process, e.g., more formal/procedural and institutionalized processes, such as the public process under the National Environmental Protection Act governing the US Forest Service Forest Resource Management Plans; they may be scientifically procedural but discretionary, as in the use of social science/research tools such as surveys to inform the process; and they may be procedurally informal but built into ongoing management or governance structures such as community forest initiatives (see Social and Collaborative Forestry: Common Property Forest Management; Joint and Collaborative Forest Management; Social and Community Forestry) or voluntary comanagement agreements with First Nation aboriginal groups.

In terms of the range of participatory mechanisms on the scale of Arnstein's ladder or the simpler threecategory classification described above (see Figure 2), the more collaborative mechanisms are least common. They tend to be more difficult to introduce and implement and require considerable flexibility on the part of participants and enlightened attitudes on the part of the agencies or vested interests; they can consume more time than other methods, although it is argued that they may save time in the long run by improving understanding and reducing conflict.

Empirical research shows that many public participation processes in practice to-date have not lived up to their potential or public and agency expectations. The FAO/ECE/ILO study found that projectoriented processes tended to address certain sectors of the public and not others. Many researchers have commented on the failure of processes to engage the silent majority. Some have suggested that environmental groups, for example, have successfully used the process to shift the focus on to environmental interests at the expense of other values, thereby distorting the real public interest, although there are also many instances of apparent domination of the public agenda by industry, landowners, or government. As an example, the US Department of Agriculture Forest Service conducted a public participation process in the Nantahala National Forest and researchers evaluated the representativeness of the public involvement. The research indicated that the socioeconomic characteristics of participants in the public process did not reflect the make-up of the local public: participants tended to have more general education, more formal education about forests, greater incomes, and a higher proportion with occupations related to natural resources, as compared with the general public. State government, environmental, and timber interests were overrepresented. Nonetheless, the research concluded in this case that the preferences of the participants, on balance, broadly reflected the general public's values.

Various barriers commonly prevent or discourage voluntary participation by some groups. These can include:

- lack of information, either explaining the process itself or why the issue is important
- lack of access to the participatory process due to cultural or psychological factors, such as inexperience or perceived repercussions; women, young people, and aboriginal groups are often under-represented in conventional processes, as well as other groups who lack organizational capacity, such as small-scale forest owners or less affluent social classes
- belief that participants have little or no ability to influence the process/decision
- tactical behavior, whereby some interest groups perceive they can be more influential by staying outside the process
- lack of interest, often compounded by the cost or time commitment required to sustain a participatory effort; people choose to participate only as

long as they perceive the benefits outweigh the costs of their participation.

Public participation in forestry land use planning has met with mixed success, often leading to low public satisfaction with the processes concerned. Many processes are institutionalized, and not agreed to or influenced by the participants. Recent Canadian research indicates that some conventional techniques for eliciting public input such as noninteractive public displays and open houses with highly technical material have generated less than useful results. Recurring problems in some political climates include long and acrimonious processes that appear to favor certain lobby groups while marginalizing other values. The links between the public process and final decisions or implementation of forest plans are often not transparent. Evaluation of the success of processes, to gauge effectiveness and satisfaction of participants, is seldom conducted routinely in practice. In this article, some more specific evaluations of the performance of particular public involvement mechanisms are provided with the descriptions of key techniques below.

According to some researchers, successful public involvement may be more affected by the specific context of the geographic area and issues such as the available time, budget, and pre-existing relationships between the stakeholders, than by the specific public involvement techniques employed. Even the most sophisticated public involvement processes can sometimes be unsuccessful due to internal and external contextual factors; however, there is some evidence in recent research that innovative processes facilitated by neutral third parties can influence the pre-existing stakeholder or institutional dynamics and revitalize productive participation (Figure 3).

The growing body of research evaluating public participation in forestry leads to some emerging general principles. The UK Forestry Commission has concluded that the process of community participation is as important as the product (management decisions), if public support for decision-making is to be maintained. This process is iterative, cyclical, and woven into other aspects of management and decision-making; it should not be thought of as a single event or the application of a single technique; it continues after the planning process is 'complete.'

The process needs to recognize multiple publics, not just the extreme interests. Consensus among stakeholders is not necessarily a realistic outcome for an effective process, even though many processes are designed to achieve this; sometimes, providing inclusive and balanced information to the decisionmakers for use in a structured and controlled



Figure 3 Workshops facilitated by researchers with separate stakeholder groups to assess forest management alternatives, using model-based time-lapse maps and visualizations, were deemed more effective than conventional public processes in the politically charged atmosphere of British Columbia's Slocan Valley.

decision process may be enough, and better than the alternative of a simplistic majority vote process. Not all participatory processes need to involve all stakeholder groups in the same venue at the same time; more constructive results may be obtained by granting equal access to each stakeholder group separately. Researchers have found that using a small group of stakeholder representatives can be more efficient in reaching solutions than processes that directly involve large numbers of people, but risks divorcing the participants from the groups they are intended to represent.

The context of political and cultural norms and traditions is important, as is building trust. This can take a long time, especially if cultural and communication barriers between scientists or managers and indigenous groups (for example) need to be overcome. The skill and capacity of participants to engage with a public process may need to be enhanced for an equitable process to occur.

Belief in the fairness of the decision-making process is key. However, merely increasing participation in the decision-making process does not always enhance satisfaction with the perceived fairness of either the process or the decision. Besides conducting procedurally fair public involvement processes, it is necessary to demonstrate that the decision-makers acted in good faith by impartially considering the views of participants in the decision-making process.

Evaluating the Effectiveness of Participatory Processes

How is a good public involvement process determined? This section goes beyond the general principles outlined above, to describe criteria for evaluating the effectiveness of participatory processes. The following criteria have been proposed by or derived from various authors and researchers.

- 1. Logistical effectiveness. The process should be appropriate to the scope, financial resources available, and the time limitations of the project requirement.
- 2. Clearly structured and integrative decision-making framework. The nature and scope of the participatory process should be articulated at the outset and used throughout the process as a guide to keep the tasks on track; mechanisms for structuring and

working through the decision-making process should be clear and well coordinated.

- 3. Representation. The process should provide inclusive representation of all interests concerned by the issue driving the participatory process, including administrators, actual and potential users, and people whose livelihoods or other interests are affected by the decisions. Participants should have an equal right to express their opinion and a fair chance to assert their interests and rights.
- 4. Open communication and access. Steps should be taken to ensure that participants have multiple opportunities or choices for involvement e.g., different event times, length of time and format involved, and intensity of involvement in a culturally appropriate manner. In addition, all participants should have access to needed resources and should be involved in the process as early as possible and as need arises.
- 5. Participants' agreement. The process should be based on participants acting in good faith, and agreeing not to use shared information to abuse or sabotage the process. Participants should be included in the design of the process; agreeing to ground rules for the process; participants in collaborative processes should ensure good communication with their respective interest group.
- 6. Transparency. The process should be transparent to participants and the broader public, and the information understandable and readily available.
- 7. Independence and neutrality. The process should be conducted in an independent, unbiased manner. Participants should be free to conduct themselves in a voluntary and self-directed manner without coercion, and process management should be neutral. The process should seek the common good, not just accommodating specific interests.
- 8. Influence and accountability. It should be clear that the process and recommendations are capable of genuine impact on decisions. The process should not guarantee or predetermine the outcome, and should be open to consideration of reasonable alternatives and choices, including at a minimum a 'do nothing' alternative to the proposed action. Action should follow decisions and designated parties should ensure their followthrough. Participant satisfaction with the process should be documented.

Individual Participatory Techniques

This section reviews selected participatory techniques applicable to forest planning, as examples of the methods and tools in use or available. Methods range from the highly scientific to the pragmatic: some can be submitted to rigorous statistical analysis consistent with the high standards of social science research methods (utilizing techniques such as random sampling and adequate sample size calculation to ensure validity, reliability, and generalizability of results); others apply simple descriptive statistics to characterize findings from available participants, or yield only qualitative discussion of general preferences and decisions, as with many public advisory groups.

A menu of some key techniques follows, loosely arranged on a scale from informational through consultative to collaborative; results of empirical studies on these techniques are summarized where these are available and pertinent.

- 1. Information open house. The public is invited to visit a specific venue during a specified time period where information on a project or issue is displayed and a presentation may be made. There are usually opportunities for comments to be received. This can represent an easy form of public participation to manage, and is useful early in the process, but may not secure input from various affected stakeholder groups; it is often inadequate as the primary mechanism to support decisions.
- 2. Surveys (e.g., mail-out questionnaires and personto-person or telephone interviews). These are a means to gather information using a representative sample that reflects the opinions of the larger population. Return rates are sometimes quite low, and participants may be skewed demographically, but surveys usually expand significantly the range of opinion gathered, as compared with meeting-based techniques. They do not enable dialogue.
- 3. Interactive websites with surveys/email responses. Use of the World Wide Web can provide information to the public as well as gather responses. This promises broad and open participation to local and global interests alike, is cost effective in relation to the breadth of outreach, and allows updating of information and some dialogue; however, its weaknesses include only being open to people connected to the Web, and experience has demonstrated the risk of overuse/distortion of the system by certain motivated interest groups.
- 4. Citizen advisory committee or public advisory group (PAG). This is a public involvement forum which advises forest managers on issues and initiatives as an ongoing mechanism for public consultation. The level of responsibility and influence of the group can vary. The PAG is intended to provide an avenue for local constituencies to represent their interests and views regarding forest management; however, the

Canadian Forest Service has found that PAG members can differ systemically from the general public in sociodemographic characteristics and values and attitudes to forest management, suggesting that the process for selecting community representatives is critical.

5. Focus groups. These are small groups of people, formally or informally organized, and randomly selected or carefully chosen to represent various interests, for the purpose of interactive and spontaneous discussions of one particular topic or plan. Focus groups can be used at any stage of the public involvement process to accomplish tasks ranging from gathering information, or defining issues or criteria, to providing perceptual data (*see* Landscape and Planning: Perceptions of Forest Landscapes). As with other methods, representation of the wider public interests is key. A variant of the focus group technique is to hold structured

workshops with various stakeholder groups to assess alternative forest plan scenarios, against multiple agreed criteria. The scenarios can then be compared and the results tabulated to quantify commonalities or differences in preference between each stakeholder group (Figure 4). Workshops can also be used to generate new or preferred solutions collaboratively.

Various new participatory techniques are emerging to expand the tools available to researchers and forest managers; examples include self-directed photosurveys of community values by local participants; cable TV channels providing opportunities for community dialogue and instant opinion polling; and decision support tools using real-time integrated resource-forecasting models linked to forest visualizations (*see* Landscape and Planning: The Role of Visualization in Forest Planning).



Figure 4 In a participatory multi-criteria analysis process conducted under the Arrow Forest District IFPA pilot study in British Columbia, different stakeholder groups weighted sustainability criteria and generally agreed on preferred forest management scenarios, as shown here in landscape visualizations. Visualizations by J Salter and D Cavens, Collaborative for Advanced Landscape Planning; reproduced with permission from Sheppard SRJ and Meitner MJ (2003) Using multi-criteria analysis and visualization for sustainable forest management planning with stakeholder groups. In: *IUFRO Decision Support for Multiple Purpose Forestry Conference Proceedings*, Vienna, Austria.

Towards Best Practices in Participatory Forest Decision-Making

Public participation is more than just a set of tools or a mechanical process: it has been called 'a way of thinking and acting.' Nonetheless, research and practical experience suggests some ways to design and structure an appropriate public participatory process. Beierle and colleagues have suggested five steps in designing public participation processes: (1) determine the need for public participation; (2) identify goals in the process; (3) determine key design decisions on appropriate participants, level of engagement, degree of public influence desired, and governmental role; (4) select and modify appropriate process; and (5) carry out a post-process evaluation. The FAO/ECE/ILO outline three stages and nine steps to consider when planning a participation process (Table 1). The overall decision-making process into which the public involvement fits, generally involves the selection of stakeholders, identification of issues, establishment of goals and objectives, agreement on evaluation criteria, generation of options, assessment of alternatives, and, finally, the selection of a course of action to achieve the plan.

In any public process, an analysis of stakeholders early on is essential: omissions or misrepresentation at this stage can hamper success throughout the remaining process. Stakeholder analysis requires a thorough search of stakeholder groups and contact details, including affected individuals, nonorganized stakeholder types (whether involved in or excluded from the usual processes), and a sample of the wider public. A typical range of stakeholders in western countries might include:

- indigenous communities if present
- other neighbors, local residents, and the community at large

- industry, labor, and local economy interests
- special-interest groups representing other forest users, such as tourism providers, recreation user groups (including visitors), environmental groups, and nontimber forest products users
- government agencies
- experts (to provide technical knowledge).

Stakeholders can be characterized in terms of the degree to which they are affected, their level of organization and influence over planning processes, and their capacity to participate meaningfully. Some attempts have been made to identify primary, secondary, and tertiary stakeholders, based on issues such as proximity to the area and how salient a forest resource is to them, but there is disagreement on how this classification should be used, for example, to influence levels of access to the participatory process. The stage of the decision-making process along with the level of involvement and the purpose of the public consultation will influence the selection of the type of stakeholders to be engaged. Within stakeholder interests, some researchers recommend leaving the choice of representatives to the stakeholders themselves wherever possible. Different levels of planning may require different skills and knowledge from the participants. The public involvement process may have to include capacity-building in order to achieve meaningful responses.

In terms of selecting appropriate participatory techniques (such as those described above) as part of the larger designed process, some researchers such as Hislop and Twery at the UK Forestry Commission have provided menus and selection guidance. However, it is generally accepted that multiple approaches are generally required: one technique is usually not enough to address the different publics, cultures and contexts identified through stakeholder analysis and

Stage Steps Define the context 1 Identify issue (e.g., proposed forest management activities), geographic scope, and potential stakeholders (stakeholder analysis) 2 Define objectives, needs and budget for public participation, and possible approaches/mechanisms 3 Commit to conducting a participatory process (or opt for another type of decision-making) 4 Disseminate information about the issues and public process, and collect initial reactions/concerns 5 Develop a participation plan with participants, including goals, timetable, scope, rules and responsibilities, Plan the process information management, techniques to be used, needs for training/capacity building, internal and external communications, and evaluation. 6 Implement the participation plan, and adapt if necessary Implement the process 7 Evaluate the participation plan and outcomes with stakeholders 8 Communicate the outcomes of the public process to all stakeholders and wider interests 9 Implement the outcomes (e.g., forest management activities) and provide feedback on progress

Table 1 Stages in planning a public participation process (adapted from FAO/ECE/ILO Joint Committee, 2000)

Source: FAO/ECE/ILO Joint Committee (2000) Public Participation in Forestry in Europe and North America. Geneva, Switzerland: International Labour Office.

scoping. The selection of the appropriate processes to match the given time, budgetary, and staffing constraints, and other external influences, is key. Clarification of the intent and intensity of the public involvement required will help differentiate between ongoing techniques, such as PAGs, versus more occasional major efforts at regular intervals, such as participatory forest management plan development.

Transparent documentation and monitoring of the process over time is important in helping to demonstrate social sustainability. Feedback to participants is critical to building trust over the longer term, together with evaluation of the effectiveness of processes and the level of public satisfaction achieved, as part of adaptive management of the public process itself. Beyond decision-making processes, constructive public involvement can be extended to include participation in implementing management actions, forest protection, and monitoring of sustainability criteria and indicators.

See also: Landscape and Planning: Forest Amenity Planning Approaches; The Role of Visualization in Forest Planning. Social and Collaborative Forestry: Canadian Model Forest Experience; Common Property Forest Management; Joint and Collaborative Forest Management; Social and Community Forestry; Social Values of Forests.

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