

SUSTAINABLE **FOREST**  
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# **Public Participation in Sustainable Forest Management: A Reference Guide**

*By Thomas M. Beckley, John R. Parkins  
and Stephen R.J. Sheppard*



## THE SUSTAINABLE FOREST MANAGEMENT NETWORK

Established in 1995, the Sustainable Forest Management Network (SFM Network) is an incorporated, non-profit research organization based at the University of Alberta in Edmonton, Alberta, Canada.

The SFM Network's mission is to:

- Deliver an internationally-recognized, interdisciplinary program that undertakes relevant university-based research;
- Develop networks of researchers, industry, government, Aboriginal, and non-government organization partners;
- Offer innovative approaches to knowledge transfer; and
- Train scientists and advanced practitioners to meet the challenges of natural resource management.

The SFM Network receives about 60% of its \$7 million annual budget from the Networks of Centres of Excellence (NCE) Program, a Canadian initiative sponsored by the NSERC, SSHRC, and CIHR research granting councils. Other funding partners include the University of Alberta, governments, forest industries, Aboriginal groups, non-governmental organizations, and the BIOCAP Canada Foundation (through the Sustainable Forest Management Network/BIOCAP Canada Foundation Joint Venture Agreement).

## KNOWLEDGE EXCHANGE AND TECHNOLOGY EXTENSION PROGRAM

The SFM Network completed approximately 300 research projects from 1995 – 2004. These projects enhanced the knowledge and understanding of many aspects of the boreal forest ecosystem, provided unique training opportunities for both graduate and undergraduate students and established a network of partnerships across Canada between researchers, government, forest companies and Aboriginal communities.

The SFM Network's research program was designed to contribute to the transition of the forestry sector from sustained yield forestry to sustainable forest management. Two key elements in this transition include:

- Development of strategies and tools to promote ecological, economic and social sustainability, and
- Transfer of knowledge and technology to inform policy makers and affect forest management practices.

In order to accomplish this transfer of knowledge, the research completed by the Network must be provided to the Network Partners in a variety of forms. The KETE Program is developing a series of tools to facilitate knowledge transfer to their Partners. The Partners' needs are highly variable, ranging from differences in institutional arrangements or corporate philosophies to the capacity to interpret and implement highly technical information. An assortment of strategies and tools is required to facilitate the exchange of information across scales and to a variety of audiences.

The KETE documents represent one element of the knowledge transfer process, and attempt to synthesize research results, from research conducted by the Network and elsewhere in Canada, into a SFM systems approach to assist foresters, planners and biologists with the development of alternative approaches to forest management planning and operational practices.



**Knowledge Exchange and Technology Extension Program (KETE)  
Sustainable Forest Management Network**

# **Public Participation in Sustainable Forest Management: A Reference Guide**

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Citation: Beckley, T., Parkins, J., and Sheppard, S. 2005. Public Participation in Sustainable Forest Management: A Reference Guide. Sustainable Forest Management Network, Edmonton, Alberta. 55 pp.

**ISBN # 1-55261-191-4**

**Printed in Canada**

***Cette publication est aussi disponible en français***

**Published March 2006**



## EXECUTIVE SUMMARY

Over the last few decades, public participation has emerged as a key component of forest management and policy decision-making, as public awareness, concern for environmental values, and activism have increased at local to global levels. Forest managers are now faced with enacting a transition from an expert-driven, regulatory, and science-based system to a more inclusive and socially responsive model of decision-making. However, most forest managers are not trained in such techniques and have many questions about why and how they should meet these new objectives. This document describes principles for public involvement and provides a description of potential tools for effectively involving the public in forest management and policy. It is intended as a reference manual for forest managers and public participation practitioners from government and the private sector.

What is public participation? It is where individual, communities, and stakeholder groups can exchange information, articulate interests, and have the potential to influence decisions or the outcome of forest management issues. It is a two-way process between experts/managers and the public, and should not be confused with the one-way flow of information in public relations exercises. There are many diverse “publics,” and most “stakeholders” hold multiple stakes in any planning process.

Why undertake public participation? Research shows a positive relationship between public participation activities and forest management practices on the ground. Public participation processes can lead to better decision-making by providing local or independent sources of information and by examining alternative management strategies; they also build trust, educate and inform all involved, and can reduce long-term delays and uncertainty. An important motivation for engaging in public participation activities is that such processes lend legitimacy to the final outcome. 94% of Canada’s forests exist as a public trust managed by the government license holders on behalf of the public, who are the actual owners of the forest. In acknowledging the public ownership of these resources, two certification systems in Canada (Canadian Standards Association and Forest Stewardship Council) require extensive public participation.

What makes for good public participation? Successful public participation will incorporate a wide range of public values into the discussion and the decision-making process. It will also be available to all public interests. Participatory processes should address not only breadth in achieving wide representation of affected stakeholders and communities, but also depth in terms of a



meaningful level of exchange; this can make the difference between consultation and more active collaboration. Participatory processes are often iterative. Opportunities for frank and open discussion should be provided; attainment of consensus is not always necessarily the defining criterion of success, but a traceable influence on decisions is important.

Usually, several tools will be employed in a public participation process. A suite of such tools is usually necessary to implement public involvement successfully. Classifying various public involvement tools involves a distinction between direct (“face-to-face”) and indirect (“non-face-to-face”) methods. The more collaborative participatory methods tend to be associated with face-to-face techniques, although this simple distinction is starting to break down with the onset of computer-based, “remote” participatory tools such as web dialogue techniques. Tools can also be organized along a continuum of activities that range from limited representation (eg. workshops) to broad-scale representation (eg. random sample surveys) of the public. Indirect tools include comment sheets, toll-free lines, referenda, and surveys. There are several types of social science surveys; mailed surveys, telephone surveys, web surveys, and face-to-face surveys. All types of surveys are vulnerable to forms of bias, but they are probably the best mechanisms for achieving a truly random sample and therefore one of the most accurate gauges of public opinion, in showing how an otherwise silent majority views an issue. They are effective tools for assessing the general directions or balance of values that the public would like to see in forest management. However, they do not allow for much two-way flow of information.

Direct tools include public advisory committees, focus groups, public multi-criteria analysis, citizen juries, and deliberative polling. Public advisory committees may be unduly influenced by their sponsors, yet committees have an opportunity to directly influence outcomes to various degrees. Broad representation of stakeholders, professionally facilitated meetings, a clear mandate, and strong agency support usually improve the effectiveness of committees. More structured tools and processes can be used with direct techniques, such as participatory multi-criteria analysis. This is where stakeholders in focus groups may participate in prioritizing various criteria and indicators by attaching weights to each, which can then be used to derive scores for alternative forest management scenarios or “trade-off” one management objective against another in a transparent process. In addition, emerging tools such as self-directed photography of valued forest resources, community-based GIS, and 3D landscape visualization are becoming more common, and can be highly effective in eliciting meaningful public comment.



This report provides a table in poster format that summarizes much of the information contained in the description of public participation tools. It is intended as a menu or quick reference guide for strategic and operational forest managers and planners, to help them consider the strengths and weaknesses of various tools as they develop a public participation program. Specific public participation tools (eg. surveys or focus groups) will not rate highly on every performance indicator. For instance, survey research may be an appropriate tool for incorporating a wide range of public values but it provides little opportunity for a two-way flow of information. Likewise, advisory committees may provide opportunities for relationship building, but they are not well positioned to provide participants with a level of anonymity or solicit input from the general public.

Some of the tools described here are effective for gathering public values on fairly general issues. These tend to be indirect methods, such as surveys or referenda. There is little opportunity for participants to learn more and to become more informed about an issue by participating in these activities. They are static and inflexible, but they are often cost-efficient, anonymous, and most importantly, representative of the broad public (as opposed to reflecting the values of a smaller group). Conversely, direct, face-to-face processes such as advisory boards, workshops and round tables provide great opportunities for learning. They give something back to participants, and they are flexible. They are most useful for establishing dialogue between individuals with diverse values and interests and identifying workable solutions under conditions of complexity and uncertainty.

Often, forest managers have initiated public participation activities after initial planning and mapping activities have been completed. This gives the public an impression that plans are somewhat finalized and only small changes are possible. Participation should begin at the early stages of information gathering and goal identification. A stakeholder analysis needs to be conducted to determine who the relevant publics and stakeholder groups are. Public representatives should become involved in the planning of the participatory process itself and the selection of tools. Industry, governments, the media, ENGO's and other groups may all have a role with respect to collecting public input for use in forest management. There is a more diverse array of public values and a degree of scientific complexity that demands a greater public role in deciding how public resources will be managed and who will benefit. Offering opportunities to provide input without any real intention to follow through or without sincere attempts to accommodate concerns, is a recipe for disaster.



Forest managers need to provide a range of opportunities for the public to express their views, opinions, desires and objectives for forest management. As well, they need to demonstrate a willingness to address those concerns through tangible, concrete actions. These may be actions in the forest, or actions in a meeting, workshop or focus group.

Good public participation initiatives create a place where criticism and respectful dissent are welcome. Using these tools and processes to their full potential will allow resource managers to move from managing public interest and controlling dissent to meaningfully incorporating public interests and conflicting values into the planning process.





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# Acknowledgements

The authors would like to thank the various members and staff of the Sustainable Forest Management Network who patiently supported this effort and provided review; in particular, the early impetus from Darryl Hebert and careful review from Luc Bouthillier were crucial. Thanks also to the other anonymous reviewers of the manuscript, whose comments have significantly improved the document. We would also like to thank the many members of the public who have unknowingly contributed so much to the experience and knowledge captured in this publication, and to the various government, industry, First Nation, and NGO representatives who have also contributed. This work was conducted with the assistance of researchers from University of New Brunswick, Canadian Forest Service in Edmonton, and the Collaborative for Advanced Landscape Planning at UBC (notably Cecilia Achiam and Joanne Proft). Last but not least, Kim Edmondson performed invaluable work in organizing the “bad men” who sometimes couldn’t get their schedules together to write the thing, and for copy-editing.

## 1.0 Introduction

Over the last few decades, public participation has emerged as a key component of forest management and policy decision-making. In western nations, there has been a marked trend towards more public participation in forestry, as public awareness, concern for environmental values, and activism have increased. This can be seen at both the local level, with new initiatives such as community forests, which entail more control over management of local resources, and the global level, where public opinion affects the international marketplace. The Canadian Council of Forest Ministers' (CCFM) Criteria and Indicators initiative on sustainable forest management and current forest certification systems call for appropriate public participation in decisions related to forest management on publicly owned lands (CCFM 2003). While some nations have traditionally used what is now termed as participatory decision-making in their resource stewardship, North America has been struggling to adapt from an expert-driven, regulatory, and science-based system to a more inclusive and socially responsive model.

In Canada, with its commitment to democratic principles, the high proportion of forest management taking place on public lands, and the dependency of many communities on forest resources, the desire for more and better public participation is particularly relevant. As well, that demand has been growing significantly in recent years. It may be that entirely new institutional structures will be required to meet that demand (see Shindler *et. al* 2003), however, much of that demand may be met through better application of existing tools. This document describes principles for public involvement and provides a description of potential tools for effectively involving the public in forest management and policy.

How should forest managers and decision-makers undertake public participation activities in the context of sustainable forest management? In Canada there are not yet any nationally recognized guidelines for public participation and decision-support for sustainable forest management. The Canadian Standards Association (CSA) has published criteria and indicators for sustainable forest management (CSA 2002) which details the requirements for public participation in decision-making under CSA certification, but these are general and not intended to provide detailed practical guidance to managers. There are, however, many precedents, many experiences, and numerous publications to draw upon. This report synthesizes some of the most relevant literature and research findings, from within and outside the Sustainable Forest Management Network, in order to provide more explicit guidance to today's forest practitioners.

Although it is true that most forest managers receive little or no training in public participation in formal curricula, they often have some experience dealing with the public and with public values from existing government guidance, corporate public relations strategies, or their own common sense. However, this experience is often as frustrating as it is rewarding. Figure 1 contains a partial list of perspectives that are often heard from the ranks of forest managers with regard to the public and public participation.

*Over the past few decades, public participation has emerged as a key component of forest management and policy decision-making*

*This document describes principles for public involvement and provides a description of potential tools for effectively involving the public in forest management and policy*

*In Canada, there are not yet any nationally recognized guidelines for public participation and decision-support for sustainable forest management*

*Although most forest managers receive little or no training in public participation, they often have experience dealing with the public and with public values*





### Common Questions, Comments and Concerns from Forest Managers regarding Public Participation

- If only the public understood what we are trying to do, they would support us.
- I am a trained professional; I know best.
- We had an open house and nobody showed up.
- The people who show up don't represent the general public.
- It's always the same stakeholders that show up; the squeaky wheels get the grease.
- People just use the platform to grandstand on their issues, and end up shouting down everyone else.
- City folk drive the agenda; but they don't understand forestry issues or rural values.
- Who are the general public anyway?
- How much public participation is enough?
- Where do we start? What techniques are best for us?
- Public participation takes a lot of effort; we can't afford the time or money.

Figure 1 Common questions, comments and concerns from forest managers regarding public participation.

This document seeks to address many of these practical issues articulated in Figure 1. However, such concerns reflect deeper questions that also need to be considered and are not necessarily simple to answer: Why should the public be involved? What are the historical influences that have driven public interest in forest management? How should a public participation program be evaluated? Should the public, with their imperfect knowledge of forest dynamics, be trusted to chart the course of future forest management activities? What public participation tools should be used and when?

There is widespread discussion of the need to achieve a "social license" for forest management, but is public acceptability at the societal level the only goal of public participation activities? At the operational level, there needs to be trust in the systems and the participants (Sheppard 2003). How can this be achieved? Too much trust can lead to apathy and non-involvement, so can trust be balanced with critical inquiry? New directions in forest certification standards call for public participation which may assure the public that the forestry companies will go through a public process, but are these efforts satisfactory, and who should judge?

This document addresses these questions in the context of sustainable forest management in Canada specifically and North America generally, though some aspects of the material can be applied more widely to other regions and industry sectors. Given its Canadian focus, it acknowledges the central importance of the issue of First Nations participation in forestry but also recognizes the legal, political and cultural distinctions which provide a somewhat different context and set of realities that First Nations and forest managers must deal with in developing

*There is widespread discussion of a "social license" for forest management – but is public acceptability the only goal of public participation?*

*The material in this report stems from a sizeable body of research*

*Initially, the public's interest revolved around the allocation and distribution of forest resources, and the rights to exploit them*

*A combination of elites, the mass media, and progressive industry stakeholders pressured governments to adopt conservation measures, over concerns with long-term wood supply*

*Another outcome of this era was the development of Canadian university forestry faculties*



a participatory program. While many of the principles set out in this document have some applicability to First Nation communities, the situation may often call for different approaches and tools, as discussed in more depth in the synthesis document by Dr. Marc Stevenson entitled “Traditional Knowledge and Sustainable Forest Management” (**Stevenson 2005**).

The material in this report stems from a sizeable body of research, both from the Sustainable Forest Management (SFM) Network and others within and outside Canada. However, it is not intended as an academic text, but as guidelines for forest managers and public participation practitioners from the government and the private sector. The goal is to provide “best practice” guidance with additional background, potential tools and practical resources.

Also included with this report is a table in poster format that summarizes much of the information contained in the description of public participation tools (Section 7.0). It is intended as a quick reference guide for strategic and operational forest managers and planners, to help them consider the strengths and weaknesses of various tools as they develop a public participation program. The poster can be found in the clear pocket attached to the rear inside cover of this document.

## **2.0 The history and context behind the need for public participation in forestry**

Historically, public interest and participation in forest management and policy has ebbed and flowed. Initially, the public's interest revolved around the allocation and distribution of forest resources or, more precisely, the rights to exploit them. In the 19<sup>th</sup> century “public participation” in forestry meant access for the small producers as opposed to the timber barons (Sandberg and Clancy 1996). In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the Industrial Revolution hit full stride in North America and the forest industry achieved a scope, scale, and technological sophistication increasing the potential to over-exploit a resource once thought to be inexhaustible.

It would be an overstatement to suggest that most of the general public were greatly concerned with the rate of forest exploitation at that time. Canada's economy and population was still largely agricultural and forests were still viewed by the majority of society as an impediment to the “improvement” of the land through agricultural development (eg. forest conversion). Nevertheless, it was a combination of elites, the mass media (which was growing exponentially at the time due to increased literacy and the advent of wood fibre pulping technology) and progressive industrial stakeholders concerned with long-term wood supply that pressured governments to adopt conservation measures (Drushka 2003). While this group was not broadly representative of the larger society, it was an example of public pressure influencing public policy related to forests. Another outcome of the forestry debate in this era was the development of faculties of forestry in Canadian universities (Apsey *et al.* 2000). For the six decades following the establishment of these institutions (1900-1960), the public held professional foresters in high esteem and deferred to professional foresters when it came to

<sup>1</sup> References in bold type are those funded by the Sustainable Forest Management Network.



issues of forest utilization. Forest values throughout this period remained fairly utilitarian. There was concern over conservation, but with the exception of a few national parks, the main issue was conserving forests for future commodity production. Placing this task in the hands of dedicated professionals who would manage forests based on scientific principles to ensure a sustained yield of fibre over the long term, seemed a perfectly rational and reasonable course of action at the time.

A number of factors have contributed to greater public demand for involvement in forest management and policy from the 1960s to the present. Until the post-WWII era, there was significant homogeneity of interests and objectives for forest management among Canadians. During the Great Depression and both World Wars, people valued forests primarily for their economic potential. Through the 1950s and 1960s, automobile ownership became more widespread and huge investments were made in the country's transportation infrastructure. While the overall demographic trend had been toward urbanization for some time (by 1931 more Canadians lived in urban as opposed to rural residences), it was only after WWII that significant numbers of those urban residents were able to access rural forests for recreation. As people became less directly dependent upon forests for their livelihoods and more dependent upon them for recreational pursuits, their values for forests changed, or rather became more diverse. They were also able to see what forestry looked like and the clearcuts, erosion and general messiness of operational forestry did not fit with their vision of pristine rural landscapes. One factor that continues to frustrate forest managers is that the public, or vocal factions thereof, continue to demand fibre-based commodities, but at the same time they want more recreation areas, protected areas, biodiversity, and other values.

The environmental movements of the 1960s and 1970s also influenced the shift in forest values and subsequent demand for more public involvement in forest policy and management. In the United States, public participation was legally mandated through the National Environmental Policy Act (NEPA) of 1969 and the creation of the Environmental Protection Agency (EPA) that required environmental impact statements for major developments. In Canada, during the 1970s there were large-scale spray programs to control spruce budworm and active public campaigns to stop the spraying due to concerns over health effects associated with the chemicals used. This brought the environmental debate and demand for public input specifically to the forest sector.

The renewed recognition of Aboriginal rights that came with the patriation of the Constitution in 1982 added another set of forest values to be considered. Uncertainty over Aboriginal rights and claims to forest resources has made policy development complicated. A cornerstone of the debate over Aboriginal rights relates to public participation and consultation. Throughout the 1990s forest management and policy moved steadily away from the sustained yield paradigm and into the sustainable forest management paradigm, despite the fact that the parameters of the latter were poorly defined and indicators of performance were at best a "work in progress". Virtually all efforts to define sustainable forest management from the national level (Canadian Council of Forest Ministers Criteria

***A number of factors have contributed to a demand for greater public involvement in forest management from the 1960s to present***

***One frustrating factor for forest managers is that the public continues to demand fibre-based commodities, while simultaneously wanting more recreation, protected areas, biodiversity, and other values***

***The environmental movements of the 1960s and 1970s also influenced the shift in forest values and demands for more public involvement***

***Renewed recognition of Aboriginal rights in 1982 added another set of forest values – a cornerstone of the Aboriginal rights debate relates to public participation and consultation***

*In the 1990s, all efforts to define sustainable forest management included more and better public participation*

and Indicators, National Forest Strategy) to provincial vision documents and community forestry, include more and better public participation as part of those definitions. At the same time, case study research was starting to show a positive relationship between public participation activities and forest management practices on the ground (Higgelke and Duinker 1993).

During roughly the same period (1993 – present) certification became significant in forest management. Companies were at first cautious about becoming certified but many paid close attention to the content of certification requirements and began to reform their business practices to conform more closely to certification standards. This would enable them to achieve certification with minimal additional investment. Today, many companies are certified under various certification systems. Two certification systems in Canada (Canadian Standards Association and Forest Stewardship Council) require extensive public participation.

#### Key Messages

- The early 20<sup>th</sup> century was characterized by utilitarian values (economic) and foresters were generally held in high esteem.
- As the 20<sup>th</sup> century progressed, new social values for forests emerged, beginning with an explosion in outdoor recreation that brought people in direct contact with forests and forest management.
- The environmental movement, beginning in the 1960s, raised awareness of the importance of ecosystem process and the negative effects of some industrial forest practices on such processes.
- The formal recognition of Aboriginal rights has influenced public involvement in forestry in the late 20<sup>th</sup> century.
- Virtually all professions (lawyers, doctors, and including foresters) have lost some legitimacy and status as people have become more vocal and empowered.

### 3.0 Definitions and concepts

Public participation is more than just a set of tools or a mechanical process. It has been called “a way of thinking and acting” and is defined by the Food and Agriculture Organization of the United Nations (Joint FAO/ECE/ILO Committee, 2000, p.7) 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.” At its best, public participation is an inherently two-way process. It should not be confused with public relations, which attempts to convey information in one direction in a manner favoured by the disseminator of the information.

*Public participation is a set of various forms of direct public involvement where people can exchange information, express opinions, articulate interests, and have the potential to influence decisions or outcomes*





Who exactly are the public? This is a common question with no easy answer. In the big picture, the public means everybody, but it is often more useful to think beyond the idea of a singular public; there are many diverse “publics.” Often, the public is divided into categories of stakeholders (individuals or organized groups interested in the issue or the opportunity to drive 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. However, the reality is that most “stakeholders” hold multiple stakes (Beckley *et al.* 1999a). For example, a given individual may be a mill worker, a woodlot owner, an amateur naturalist, and a hunter. They may simultaneously hold utilitarian, subsistence, aesthetic and spiritual values for forests. Yet in many stakeholder processes, individuals are asked to represent only one set of interests when they hold many. Essentially, this means they have to suppress legitimate concerns they may have in order to represent a recognized constituent group. Also, a stakeholder driven public participation process often responds readily to recognized, organized interest groups. This may not lead to the same results as a more general public process, where people who may have never recognized their interests in, or concerns over, forest management are given their opportunity to contribute as public citizens. The issue of representation of the range of public views is discussed later in the document.

In addition to the confusion about “publics” and public interests, there is also misunderstanding about the differences between public participation and decision-support or planning processes. Based on the current policy frameworks in forest management, there should be a lot of overlap between these concepts. However, decision-support and resource planning also include many other activities such as technical studies, regulatory and legal review, development of operational and management strategies, formal negotiations with various parties, etc. Similarly, public participation may have the goal of awareness-building and mutual education (of all parties, not just the general public), ahead of decision-making, or in relation to ongoing forest management and use (eg. promoting safety or conservation-friendly public use). There may even be certain kinds of decision-making where public participation is not necessary, such as when extensive involvement has already proceeded successfully, providing adequate information to address minor changes in required management decisions.

When talking about public participation there are several terms that can be nested together in hierarchical order. At the most basic level, a variety of public participation *tools, techniques* or *mechanisms* (terms that are used interchangeably throughout this document) are available to forest managers and planners. These tools constitute the techniques and procedures employed as part of a larger public participation process. Examples of such tools include workshops, focus groups, surveys, websites, or a toll free phone number. A selection of tools is described in Section 7. Different tools are useful for different functions or situations but each tool represents a discrete set of activities for specific purposes.

Usually, several tools will be employed in a public participation process. A public participation process refers to a specific, temporally defined implementation of public involvement activities, usually targeted towards an anticipated conclusion

***Who exactly is the public? A common question with no easy answer***

***A stakeholder-driven public participation process often responds to organized interest groups, and may not lead to the same results as a more general public process***

***There is also misunderstanding about differences between public participation and decision-support or planning processes***

***A variety of public participation tools, techniques, and mechanisms are available to forest managers and planners***

***Several tools will usually be employed in a public participation process***

***A participation process should not be thought of as a single event or application of a single technique – a suite of tools is usually necessary***

***A public participation program refers to an organization's overall strategy and delivery infrastructure***

***Whereas tools and processes have a clear beginning and end point, programs are ongoing and require updating***

or objective, as with a particular land use planning project or consultation exercise. An example would be the public participatory element of developing a Land and Resource Management Plan in BC (Mascarenhas and Scarce 2004). Such a process usually has a schedule, with defined scope and multiple stages or iterations, and often applies to a defined forest area. It may need to be continued as a mechanism for public dialogue after a more formal planning process is technically “complete.” A participation process should not be thought of as a single event or the application of a single technique or tool. A suite of tools is usually necessary to implement public involvement and fulfill all the requirements of a successful process, as discussed in more depth later in the document. Given that no single tool satisfactorily addresses all the desired elements in public participation, it is essential that managers build a participatory process through careful selection of complementary tools.

There may be several processes being supported simultaneously within an organization's overall public participation program. As used in this document, a public participation *program* refers to an organization's overall strategy and delivery infrastructure for public participation. This may include a forest company's policy governing the staffing, available resources, scope, guidelines, and methods typically employed in conducting public participation as part of its overall business plan. This could be organization-wide, or targeted to a particular region, division, project or occasionally a broad resource management issue (eg. endangered species). There are several examples of public participation programs across Canada run by forest companies, government agencies, NGO's and other organizations. An example is the program implemented by Mistik Management, Ltd in northwestern Saskatchewan (Beckley and Korber 1996). Their well-documented program consists of extensive consultation with individuals and groups, public meetings, and other planned activities designed to solicit public input. Whereas tools and processes have a clear beginning and end point, programs are ongoing and will require updating from time to time.

#### **Key Messages**

- Public participation involves a dialogue with the public and should not be confused with public relations.
- The public includes everybody, including so-called stakeholders and others who may not immediately recognize their interests in an issue.
- Public participation *tools* are distinct techniques or mechanisms such as workshops or surveys.
- Public participation *processes* involve the use of specific tools to accomplish discrete planning or consultation activities.
- Public participation *programs* refer to organization-wide strategies and delivery infrastructure.





## 4.0 Reasons for undertaking public participation processes

There are many rationales and reasons for involving the public in forest management. They range from the very pragmatic to the philosophical. The simple “doing” of public involvement is less important than what happens with the input or data once it is collected. Too often public involvement happens, but the sponsors of public involvement processes find it difficult to use the “outputs” of public involvement (eg. text from public hearings, survey results, focus groups results) as “inputs” in forest management and planning. This is particularly the case when foresters responsible for running public involvement processes have little background or grounding in the tools of social science; but it is also the case when social scientists contribute to the collection of public values data, but have little understanding of forest management and planning.

On the philosophical side, the most compelling rationale for engaging the public in forest planning and management is the fact that 94% of Canada’s forests exist as a public trust. That is, they are managed by the government or its proxies (industrial license holders) on behalf of the public, who are the actual owners of the forest. It is therefore the right of the public *to set the broad objectives and goals for outputs and outcomes in forest management*. It is the job of professional foresters to provide technical assistance to help the public do that job and to devise and implement a plan to achieve those objectives (Behan 1966).

### Canadian Standards Association Commitment to Public Participation

Public participation is a vital component of SFM in Canada. Members of the public are widely considered to have the right to be involved in the management of publicly owned forests. Private forestland owners may also voluntarily adopt processes with extensive public input. Through their participation in the process, citizens can expect to enhance their knowledge of SFM in general and of other interests and values related to local forests. They also gain a valuable opportunity to be involved in the decision-making for the local forests.

Source: CSA Z809 (2002) Sustainable Forest Management: Requirements and Guidance Document.

Figure 2 CSA commitment to public participation.

A pragmatic reason for including the public is simply that it is often a requirement of legislation or policy. Much of the problem with public involvement, as it has been practiced in Canada in the last several decades, is that governments and corporate sponsors of processes have engaged the public only because they have needed to in order to satisfy a bureaucratic or administrative requirement. Simply “doing it” has allowed planners to check a box and meet a requirement.

As mentioned earlier, federal and provincial initiatives, along with several national and international market-based certification systems, have identified public participation as a key element of sustainable forest management. For example, the Canadian Council of Forest Ministers (2003) has identified two elements and six indicators that address the issue of “fair and effective decision-making” and “informed decision-making.” In addition, the Canadian Standards Association

*There are many rationales and reasons for involving the public in forest management*

*Too often public involvement happens, but managers find it difficult to use the “outputs”*

*The most compelling rationale for engaging the public is that fact that 94% of Canada’s forests exist as a public trust*

*A pragmatic reason for including the public is simply that it is often a requirement of legislation or policy*

(CSA) Sustainable Forest Management system (Z809) (2002) and the Forest Stewardship Council Boreal Standard (FSC 2005) contain extensive requirements associated with local-level public participation during the initial application phase and also during ongoing certification audits (Figure 2). These bureaucratic and regulatory rationales for undertaking public participation activities reflect one of many practical reasons for engaging in public participation (Figure 3).

Arguably, an important motivation for engaging in public participation activities is that such processes lend legitimacy to the final outcome. If forest management decision-making is undertaken in an inclusive and democratic manner, with all interested and affected individuals at the table, the decisions that flow from these processes gain a social acceptability that is crucial when specific forest management decisions are undertaken. Given developing trends in certification, the widespread recognition of the importance of gaining social license to manage forests, and our growing understanding of the differences between public involvement and effective public involvement, it is unlikely that “going through the motions” of public involvement will be satisfactory or sufficient in the very near future.

From a sponsoring agency’s or organization’s perspective, there may be a number of other benefits that are also associated with well-organized public participation activities. In parts of the country where conflict and mistrust have developed between the public and land managers, public participation activities can foster a renewed sense of trust between governmental and non-governmental organizations, institutions, and professionals. Even with low levels of trust between individuals, it remains possible to cultivate more functional relationships by ensuring that public processes are fair and effective. Additionally, public participation processes provide important opportunities to identify specific problems or challenges that might otherwise go unnoticed. If these problems can be identified early in the planning processes, it becomes possible to prepare a more comprehensive and appropriate response. Public participation processes can lead to better decision-making by providing local or independent sources of information and by examining alternative management strategies. Other benefits include education, development of trust between traditional adversaries, and potentially longer lasting solutions.

*It is unlikely that “going through the motions” of public involvement will be sufficient in the very near future*

*Where conflict and mistrust have developed between the public and land managers, public participation can foster a renewed sense of trust*

#### **Practical Reasons for Public Participation**

- Bureaucratic requirements (i.e. legislation or certification)
- Legitimacy or acceptance of decisions
- Fostering trust in institutions and professionals
- Reducing conflict and delay
- Identifying problems
- Producing information
- Identifying values, objectives, goals, and desired outcomes
- Promoting learning and new knowledge
- Streamlining and reducing long-term operating costs
- Arriving at better decisions

Figure 3 Practical reasons for undertaking public participation processes.





Identifying new values, developing new sources of knowledge, and promoting learning between groups are all important practical reasons for undertaking a well-organized public participation program. Many of these activities are very time consuming, especially during the initial phases of a planning process. However if public values are identified early, new knowledge can be obtained on a wide range of issues from a variety of sources which promotes learning between the groups and individuals involved. These processes can then start to make an important contribution to a company's bottom line. By cultivating a sense of legitimacy and social acceptability, public participation activities can assist in arriving at better decisions that, ultimately, help to streamline and reduce long-term operating costs.

*Cultivating a sense of legitimacy and social acceptability through public participation activities leads to better decisions that ultimately reduce long-term operating costs*

#### Key Messages

- Government manages land on behalf of its citizens.
- Citizens should set management objectives for the public's forest.
- In order to manage for citizens' objectives, forest managers need to find out what they like as well as what they don't like.
- Periodic assessments of the values that various stakeholders have and hold should help forest managers PREDICT how various stakeholder groups will react to management changes.
- Understanding the diversity of values helps forest managers to understand and MANAGE CONFLICT over management of forest resources.

## 5.0 Evaluation criteria and performance indicators for public participation tools

One of the challenges in evaluating public participation is determining how to measure success or failure. Public participation initiatives do not lend themselves to straightforward quantitative measurement, such as the number of meetings held, or the number of participants involved. In fact, large numbers of participants may signal a great deal of dissatisfaction with existing decision-making processes. Nor is attainment of consensus necessarily the defining criterion of success; issues cannot always be resolved by consensus, and some people may walk away unhappy from an otherwise successful public participation process.

*One of the challenges in evaluating public participation is determining how to measure success or failure – public participation initiatives do not lend themselves to straightforward quantitative measures*

What then are the essential elements or ingredients of a successful public participation process? Numerous researchers have struggled with these issues and have identified a wide range of criteria associated with success (Figure 4). These criteria are derived from diverse fields such as political science, mediation studies, environmental assessment, urban planning, and natural resource sociology. As the applied science of public participation matures, some agreement is beginning to emerge between these diverse fields of research regarding the more important

criteria associated with a successful initiative. This section condenses and summarizes a large amount of published criteria into a set of core elements, applicable both to participatory processes and individual techniques.

- Beierle, T.C. and J. Cayford. 2002. *Democracy in Practice: Public Participation in Environmental Decisions*. Washington, DC. RFF Press.
- Cote, M-A., and L. Bouthillier. 2002. Assessing the effect of public involvement processes in forest management in Quebec. *Forest Policy and Economics* 4(3):213-225.
- **Hamersley Chambers, F., and T. Beckley. 2003. Public involvement in sustainable boreal forest management. Chapter 4 *In Towards Sustainable Management of the Boreal Forest*. P.J. Burton, C. Messier, D.W. Smith, and W.L. Adamowicz (editors). NRC Research Press, Ottawa, Canada. Pp.113-154.**
- Hislop, M., M. Twery, and H. Vihemaki. 2004. Involving people in forestry: A toolbox for public involvement in forest and woodland planning. Edinburgh, Scotland: Forestry Commission.
- Lawrence, R.L., and D. A. Deagen. 2001. Choosing public participation methods for natural resources: a context-specific guide. *Society and Natural Resources* 14: 857-872.
- Rowe, G. and L.J. Frewer. 2000. Public participation methods: a framework for evaluation. *Science, Technology, & Human Values* 25(1): 3-29.
- Sheppard, S.R.J. and C.M. Achiam. 2004. Public participation in forest decision-making. *In Encyclopedia of Forest Sciences*. Academic Press/Elsevier, Oxford, UK. Pp. 1173-1182.
- **Sheppard, S. and J. Lewis. 2002. Democratising the SFM Planning Process: The Potential of Landscape Visualization as a Community Tool for First Nations. *In Advances in Forest Management: From Knowledge to Practice*. T.S. Veeman, P.N. Duinker, B. MacNab, A.G. Coyne, K.M. Veeman, G. Binsted and D. Korber (editors). Proceedings of the Sustainable Forest Management Network Conference. Sustainable Forest Management Network, Edmonton, Alberta. Pp. 304-309.**
- Shindler, B., and J. Neburka. 1997. Public participation in forest planning – 8 attributes of success. *Journal of Forestry* 95(1): 17-19.

Figure 4 Some key references on criteria for successful public participation.

Table 1 provides a summary of the core criteria associated with successful public participation. The first element deals with the *breadth* of an activity. Some authors refer to “accessing the process” (Tuler and Webler 1999), and others use terms such as “equal opportunity” (Lauber and Knuth 1999) or “equal rights to have





their opinions heard” (Sheppard 2003). Fundamentally this core element addresses the degree to which a process adequately incorporates a broad range of public values into the decision-making process (Beierle and Cayford 2003). In more practical terms, there are several performance indicators that address aspects of this issue. First, successful public participation will *incorporate a wide range of public values* into the discussion and the decision-making process. This indicator addresses the extent to which an appropriately diverse array of public interests is represented (given the relevant geography). Second, not only will successful activities be inclusive, they will also be *available to all public interests*. Whereas the first indicator is concerned with bringing people into an initiative, the second indicator ensures all participants have opportunities for meaningful input. In some instances, where communication skills, knowledge, or resources are limited, certain individuals or groups may require assistance (capacity building or intervener funding) in order to make a meaningful contribution.

*The first element associated with successful public participation is the breadth of an activity, which addresses the degree to which a process incorporates a broad range of public values*

Table 1 Core evaluation criteria and indicators of successful public participation tools.

Core Elements	Indicators
Breadth	Representation – Incorporate a wide range of public values Accessibility – Be available to all public interests Renewal – Allow for new participants over time Anonymity – Protect participants’ identities when necessary
Depth	Listening and Dialogue – Foster a two-way flow of information Flexibility – Be flexible in scope Deliberation – Provide opportunities for frank and open discussion Transparency and Credibility – Promote and make available in a clearly understandable form, independent input from scientific and other value-based sources Relationship Building – Promote positive personal and institutional relationships
Outcomes	Relevance – Influence the decision-making process Effectiveness – Improve the quality of decisions Mutual learning – Contribute to all participants’ knowledge Reciprocity – Reward or provide incentives Cost-effectiveness – Output or outcome cost-effective relative to inputs

In addition to these indicators associated with inclusion and accessibility, successful activities also *allow for new participants over time*. This is crucial in avoiding “burn-out” of initial participants (most of whom are volunteering their time) and ensuring continued vibrancy of participatory activities. New participants

may be brought in based on the identification of new issues or problems, additional stakeholders or experts, or other individuals that become interested. Also, it may be appropriate to allow new participants access to a process by limiting the length of time specific individuals are involved. Finally, *anonymity* is important in cases where people may be reluctant to express their views openly, especially when issues are emotionally charged or where the sponsors of a process have the power or are perceived to have the power to exact retribution on those who oppose their preferred options.

The second core element deals with the *depth* of public participation. Depth addresses important features and levels of exchange between participants involved in an activity. The depth of public participation, or the quality of deliberation, is essential to good decision-making. In this context, arguments are not necessarily bad, especially if they are constructive and can raise important issues in the decision-making process. The first three indicators deal with a *two-way flow of information*, *flexibility* in the design of specific activities and in placing items on the agenda, and *opportunities for frank and open discussion*. These indicators represent a prominent theme in the published literature. Allowing for frank and open discussion (Beckley 1999b), framing issues and sharing knowledge (De Marchi and Ravetz 2001), and reflecting critically and evaluating arguments (Sinclair and Diduck 2001), all speak to this issue in different ways.

On this point, there appears to be a strong consensus that public participation should provide opportunities for participants to engage each other and to access information in venues that allow ample space for constructive dialogue and critical debate. Several of the mechanisms discussed in this report are designed precisely for this purpose. In the past, many public participation initiatives have only provided opportunity for participants to “rubber stamp” plans that have been pre-determined by managers and planning foresters. Such practices are part of the reason forest managers have lost some legitimacy with the public and similar top-down approaches will not likely be viewed as sufficient in the future. On the other hand, unlimited opportunities for grandstanding by opposing interest groups do not constitute useful deliberation.

Closely linked to these performance indicators, successful public participation programs will also promote *independent input from scientific and other value-based sources*. Access to information (Tuler and Webler 1999), resource accessibility (Rowe and Frewer 2000), and capacities, skills, and expertise (De Marchi and Ravetz 2001), are important resources in fueling the deliberative process. This indicator is based on the idea that participants and sponsoring agencies do not possess all relevant information pertaining to a specific issue. It also recognizes that scientists and experts, rather than providing definitive knowledge upon which decisions are made, can be thought of as sources of specialized knowledge and insight that promote discussion and further debate (Lee 1993). Flowing from this logic, diverse sources of expert knowledge and information are essential to understanding the complexity associated with science-based forest management systems. In the same way that successful processes rest on adequately incorporating public values, they also rest on adequately incorporating the diversity of knowledge that will often include contested and conflicting evidence.

***The second core element deals with the depth of public participation, which addresses the features and level of exchange between participants***

***Public participation should provide opportunities for participants to engage each other and access information in venues that allow for constructive dialogue and critical debate***

***Successful public participation programs will promote independent scientific input and other value-based sources***





The final indicator under this element deals with *positive personal and institutional relationships*. Clearly, in situations described above, where critical debate and discussion are fuelled by deeply contested public values and perhaps conflicting sources of scientific evidence, the potential for destructive interpersonal or inter-group encounters is always present. Moreover, these events can translate into difficult and distrustful relationships. In response, researchers have identified an important element associated with deliberation that deals with issues of respect and cooperation (Homenuck *et al.* 1977), constructive personal behaviour (Tuler and Webler 1999), and building institutional trust and resolving conflict (Beierle and Cayford 2003). In situations where local historical antagonisms have created a difficult environment marked by high levels of distrust, the first phase in rebuilding more positive relationships is to create participatory processes where people feel safe, where they feel protected, and where all participants are involved with equity and fairness.

The last core element associated with successful participatory processes relates to process *outcomes*. In most instances, sponsoring agencies implement public participation activities with specific goals in mind. These goals may relate to an applied task where, for example, specific local knowledge is required to identify songbird habitat on a management area. In such instances, outcomes may involve identifying or refining polygons on a map. Alternately, these goals may relate to improving knowledge of public values through mail survey research that would inform a land use planning process. Beyond these diverse agency objectives, researchers have identified more generic outcomes that are integral to effective public participation programs. The first two performance indicators address specifically the linkage between participatory processes and decision-making. Successful public participation will be connected to, and have a direct *influence on, the decision-making process* and will *improve the quality of decisions* being made. Constructing the process in ways that provide guidance to managers (Beckley 1999b), affect agency policies (Chess 2000), and create accountability between participants and managers (Sheppard 2005) describes a common purpose regardless of more specific agency goals.

While these indicators focus on process and decision-maker linkages, the next indicator focuses on process and societal linkages. In this sense, effective initiatives *contribute to all participants' knowledge*. In other words, they serve an educative and a communicative role in bringing issues and ideas about forest management to public attention (Beierle and Cayford 2002). In some cases, this may be achieved by participants regularly reporting back to constituents. In other cases, this may involve public seminars or public lectures on issues that are thought to have broad impact. If society becomes more informed about forest management issues, public opinion becomes more knowledgeable and rooted in more contemporary ideas about forest management. The reference to all participants' knowledge means that it is not simply the public that learns. The public likely learns about forest issues and the capability of forests to satisfy their forest values. However stakeholders also learn about scientific management and about each others' perspectives and values. Finally, organization sponsors of initiatives learn about public and stakeholder values, attitudes, opinions and preferred objectives.

***In situations of historical antagonisms, the first phase in rebuilding positive relationships is creating participatory processes where people feel safe and are involved with equity and fairness***

***The last core element associated with successful participatory process relates to outcomes – successful public participation will have a direct influence on the decision-making process and will improve the quality of decisions***

***If society becomes more informed about forest management issues, public opinion becomes more knowledgeable and rooted in contemporary ideas about forest management***

The last two performance indicators deal with *rewards and incentives* for public participation and with the *cost-effectiveness* of specific activities. Is there proper “care and feeding” of participants (Shindler and Neburka 1997)? Was the process acceptable to participants (Tuler and Webler 1999)? Did the process achieve its purpose? Was it useful to the agency (Halvorsen 2001)? Were the outcomes and outputs commensurate with the inputs of time, money and other resources (Sheppard and Achiam 2004)? These questions are important considerations in the planning stages, but they are also important within a monitoring protocol. If these questions are raised at stages throughout the process, adjustments may be made that contribute to success in the long run.

These core elements are applicable to a wide range of public participation programs and processes. It is important to note, however, that specific public participation tools (i.e. surveys or focus groups) will not rate highly on every performance indicator. For instance, survey research may be an appropriate tool for incorporating a wide range of public values, but it provides little opportunity for a two-way flow of information. Likewise, advisory committees may provide opportunities for relationship building, but they are not well positioned to provide participants with a level of anonymity or solicit input from the general public. Therefore, in order to address this wide range of performance indicators, several integrated public participation tools may be required that lead to a long-term public participation program of activities.

*In order to address the wide range of performance indicators, several integrated public participation tools are required that lead to long-term public participation*

#### Key Messages

- Consensus is not an adequate measure of successful public participation.
- Breadth involves the incorporation of diverse public values.
- Depth involves an interaction with other participants and diverse sources of information that results in constructive dialogue and debate.
- Outcomes relate to the extent of influence on decision-making processes and a contribution to public knowledge.
- No single tool will rate highly on every evaluation criterion – a suite of tools is required.

## 6.0 Frameworks for organizing public participation tools

Tools for public participation can be organized in several ways. Among these potential organizing frameworks, one of the most common approaches relates to the degree of decision-making authority and control, ranging from activities with no real opportunity for public influence to activities with a high degree of decision-making authority vested in the public. This continuum (Figure 5) can be organized into four conceptual categories:

- **Information exchange or directive participation** – information is communicated primarily in one direction, with limited opportunity for dialogue.

*Tools for public participation range from activities with no real opportunity for public influence, to those with a high degree of decision-making authority vested in the public*





- **Consultation** – public opinions are sought and considered in expert or managerial decision-making. Information flows in two directions and managers or decision-makers can be seen to be listening, though not necessarily with much pressure to respond favorably to the comments received.
- **Collaboration** – representatives of the public are involved actively in developing solutions and directly influencing decisions. This usually involves iterative activities, dialogue, and in-depth working relationships, with more focus on joint responsibilities.
- **Co-management/Control** – decision-making authority and sometimes responsibility for organizing public participation is partly or wholly delegated directly to the public or their representatives.

*This continuum has four conceptual categories: information exchange, consultation, collaboration, and co-management/control*

*Most provincial and third-party certification systems emphasize consultation and co-management/control*

While it is important to be able to recognize activities which belong to all parts of the continuum, this report addresses primarily the central part of the continuum (consultation and collaboration), as emphasized in Figure 5, since this is where most of the provincial and third-party certification systems are placing an emphasis.

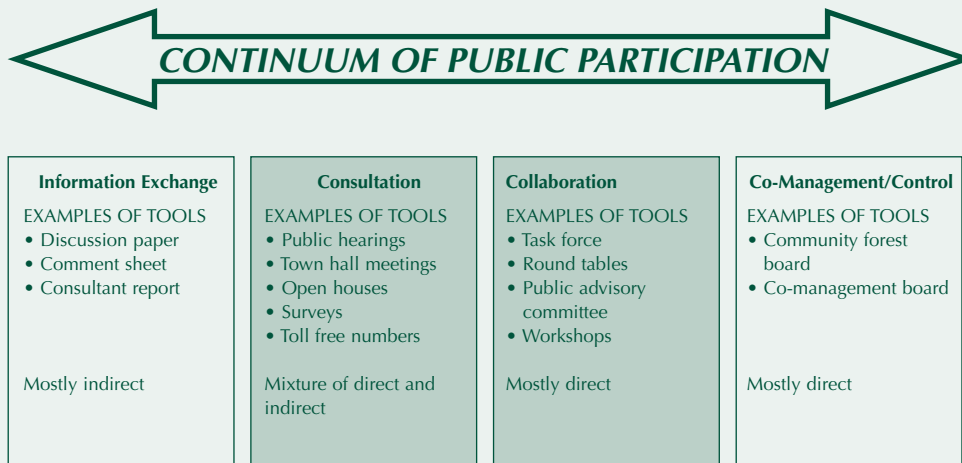


Figure 5 Continuum of Public Participation.

At one end of this continuum, information exchange is often associated with the notion of public relations, where information controlled by one party is disseminated to the public without real dialogue or feedback (eg. press releases or position statements). As stand-alone activities, these are not legitimate or effective public participation tools because they achieve few of the performance criteria listed in Table 1. There can be, however, a legitimate need to disclose or make public specific information, such as sustainability monitoring data or background leaflets making the public aware of scientific information or management actions, as part of a larger public participation process or other policy requirement. Therefore, a few information exchange tools, such as discussion papers and commissioned reports, are included in the tool description Section 7.0.

*Information exchanges, as stand-alone activities, are not legitimate or effective public participation tools*

*At the other end of the continuum, co-management or public control represents governance or tenure reform, rather than public involvement*

*A simpler classification of public involvement tools is the distinction between direct (face-to-face) and indirect (not face-to-face)*

*Tools can also be organized by their complexity – from simple response sheets to a series of iterative multi-stakeholder workshops*

At the other end of the continuum, co-management or public control represent forms of governance or tenure reform, rather than public involvement tools, and are not discussed in depth here. While mechanisms of governance and other institutional arrangements (eg. community forestry and co-management agreements with First Nations) may require the use of some of the tools described in this report, they are addressed in more depth elsewhere. Consequently, the rest of this document focuses primarily on the range of techniques falling into the highlighted categories of Figure 5, consultation and collaboration. Practitioners should note that some tools may be used in more than one category of participation along the continuum. Also, the continuum described above should not be taken to imply that more public control is automatically better than less. The purpose of this document is, in part, to reveal the complexities that should be considered when developing public participation approaches. Different contexts require different solutions.

Another organizing framework, which is simpler and more straightforward in classifying various public involvement tools, is the distinction between direct (face-to-face) and indirect (non-face-to-face) methods. Many forest managers regard public participation as “face time” with the public (as in public meetings or workshops). However, there is a need to listen to a wider, but perhaps less motivated, segment of the public who are not represented by the vested stakeholders seeking to achieve certain desired outcomes. Indirect methods such as surveys, toll-free phone-lines, referenda, and web tools, have the potential to access the wider public with the advantages of anonymity, representativeness and cost-effectiveness. The distinction between direct and indirect methods of public participation can be related to the continuum of public influence (as suggested in Figure 5). The more collaborative participatory methods tend to be associated with face-to-face techniques, although this simple distinction is starting to break down with the onset of computer-based, “remote” participatory tools such as web dialogue techniques. It is also important to distinguish indirect techniques, such as door-to-door surveys that are usually carried out by consultants or pollsters (not managers), from more meaningful face-to-face activities.

These frameworks also relate to other ways of organizing available participatory tools, such as a continuum of activities that range from limited representation (eg. workshops) to broad-scale representation (eg. random sample surveys). Of necessity, the latter tend to be indirect and less collaborative, though reaching many more people from wider walks of life. Finally, tools can be organized according to levels of complexity, from simple response sheets handed out at a public information display, to a series of iterative multi-stakeholder workshops.





### Key Messages

Frameworks for organizing public participation:

- Continuum of public influence on decisions:
  - Information exchange
  - Consultation
  - Collaboration
  - Co-Management/Control.
- Direct (face-to-face) versus indirect (remote) methods.
- Limited representation methods (eg. workshops, focus groups) versus broad representation (eg. surveys, referenda).

## 7.0 Tools for public participation

Forest managers with minimal (or no) training in public participation are often tasked with designing a program or a process to obtain public input. This section is designed to briefly describe the broad menu of tools available, and to identify their strengths and weaknesses relative to the evaluation criteria described earlier (Table 1). It is important to remember that there is no “silver bullet” and that any program or process should draw strengths from a variety of complementary tools. Many such tools are available, with new ones being developed from time to time. Suggestions for selecting appropriate tools are provided in Section 8.0 and in a poster (see Appendix 1 attached to the front cover of this document) that presents a summarized version of the tool descriptions and criteria to assist in choosing the most appropriate suite of tools for a specific task.

The following list of tools is not exhaustive, but it represents many of the commonly used and emerging techniques. The tools are classified as either indirect (non-face-to-face) or direct (face-to-face), and further divided into tools useful to involve small or large groups of people (Figure 6). It should be recognized, however, that many tools may be used in various ways and with different levels of complexity.

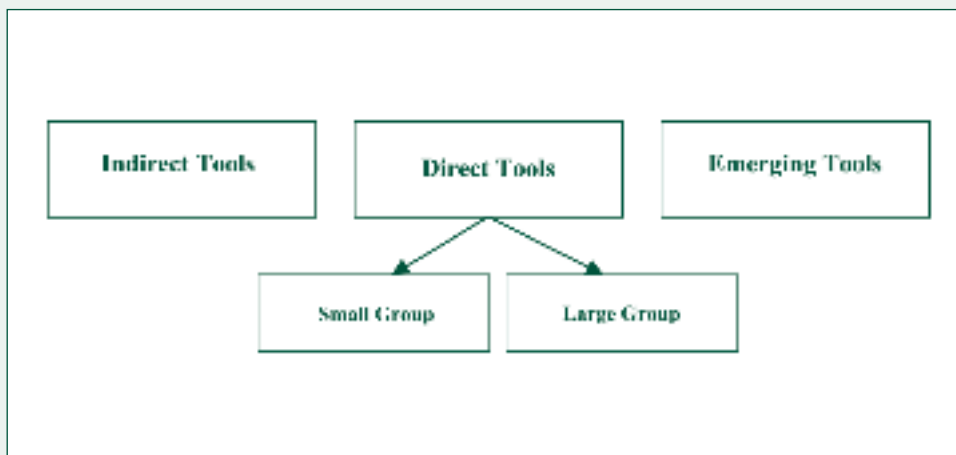


Figure 6 Public Participation Tools.

*It is important to remember that there is no “silver bullet” and that any program or process should draw strengths from a variety of complementary tools*

*Many tools can be used in various ways and with different levels of complexity*

## 7.1.0 Indirect Tools

### 7.1.1 Discussion Paper

Discussion papers are sometimes prepared to explain specific issues more fully to the public. A discussion paper often originates from sources such as commissions, committees or agency staff, and is produced for the purpose of providing balanced information on a particular topic without espousing a particular academic or policy position. Discussion papers are often prepared early in the decision-making process, to stimulate thinking and bring participants up to a shared level of understanding needed to continue with more advanced deliberations. They often serve to bring out further issues for discussion among participants and are often a vital part of the public discourse. Some processes generate discussion papers from different stakeholder groups. If discussion papers singly or in aggregate appear to key stakeholder groups to be unbalanced in their views, they may risk getting a participatory process off to a bad start. Usually, however, discussion papers present objective background information from a variety of sources and a review of procedures or potential solutions that have been considered to date.

#### Indirect Tools

- Discussion paper
- Comment sheet
- Toll-free line
- Internet – personal submission
- Referenda
- Survey

### 7.1.2 Comment Sheet

Comment sheets are a simple, inexpensive, standard tool used to record participants' comments at meetings or other venues, providing a flexible means to obtain written documentation of public opinion and concerns. As such, they are supplementary to existing tools. They may also be used at open houses, town hall meetings, or other face-to-face venues. The comments can be returned anonymously or with complete contact information for future follow up. Comment sheets are often completed at the end of an information or participatory session, and can be entirely open-ended, allowing recording of whatever the participant wishes to say. However, they can also be used in a more structured manner at certain stages in a participatory session, with some degree of prompting on issues or stages of the process. Typically, comment sheets are much less structured than a questionnaire which seeks answers to specific questions. Comment sheets are subject to the same bias as meetings where participants self-select, and may therefore represent those most interested in an issue, or with a particular stakeholder agenda. They are usually analyzed through a simple content analysis to provide a picture of overall concerns or issues from attendees. A random-sample survey with a carefully designed questionnaire would be required to develop community level patterns with statistical reliability. Comment sheets were a typical vehicle for recording public opinions at the open-houses run for Forest Development Plans under the BC Forest Practice Code prior to 2002 (Forest Practices Board 2000).

*Discussion papers are often prepared early in the decision-making process to stimulate thinking and bring participants to a shared level of understanding*

*Comment sheets are a simple and inexpensive tool for recording participants' comments and provide a flexible means of obtaining written documentation of public opinion*

*Typically comment sheets are much less structured than a questionnaire, which seeks answers to specific questions*





### 7.1.3 Toll-Free Line

Some governments and companies are using toll-free telephone lines to communicate with the public. This tool has some nice advantages. First, it is quite immediate. In theory, if someone sees a problem, they have a quick means of getting in touch with someone in the institution with which they have a problem. The effectiveness of such a tool can be negated if the caller does not reach a person in the organization who can satisfy or at least address their concern. However, accessibility is one of the toll-free line's best features. It allows people to blow off some steam and anyone with a phone (and awareness of the opportunity) has access to the tool. The willingness of the sponsoring institution to pay for the call demonstrates a willingness to listen.

Establishing a 1-800 number requires some commitment on the part of the institutional sponsor. The logistics of how it will function are important. Staffing costs may be high if the intent is to have a full-time staff person or persons handling and addressing all the calls. This also presumes a level of understanding on the part of the staff person handling calls. If a person calls a 1-800 number and then is only able to access a receptionist who has limited understanding of their problem, or no authority or expertise to address the concern, the caller will likely go away unsatisfied. The 1-800 system needs to direct concerns to the individual or department in the institution that can produce results or, at a minimum, a reasonable explanation. Otherwise, this defeats the whole purpose of the rapid response tool. This tool is fairly inexpensive, so it may be accessible to medium- and small-sized institutions. In fact, the likelihood that a caller will reach the person who can address their concern may be higher within a smaller organization.

Many certification systems require the tracking of public contacts and each call to a 1-800 number thus serves as a data point. Documentation of 1-800 concerns over time can help managers discover trends. It should be noted that few people will call with positive things to say, though some may be seeking general information. However, managers must embrace the idea that to do adaptive management and continuously improve, they must be open to criticism and able and willing to react to stakeholders' concerns. If land managers endeavor to establish a toll-free line, it is important to track and document calls, as well as the response to those calls. These could prove important in demonstrating that the callers are taken seriously and that, when necessary and appropriate, corrective actions are taken.

### 7.1.4 Internet – Personal Submission

Internet resources are becoming a more common mode of public participation in natural resource management. Organizations with sizeable internet capabilities are providing opportunities for the public to view on-line documents and resources and then provide comment through a web site. As personal internet usage increases, this method of public participation is both convenient and inexpensive. These submissions, however, are not necessarily representative of public opinion and agencies may become overwhelmed with the volume of

*Some governments and companies are using toll-free telephone lines as a means to communicate with the public*

*Establishing a toll-free number requires commitment – if a person calls and is only able to access a receptionist with limited understanding of the problem, the caller will likely be unsatisfied*

*Many certification systems require tracking of public contacts – each call to a toll-free number serves as a data point*

*Internet resources are becoming a more common mode of public participation – but submissions are not necessarily representative of public opinion*

submissions, especially when an issue is particularly contentious and attracts media attention. Weaknesses include being open only to people connected to the Web and the risk of over-use/distortion of the system by certain motivated interest groups. This kind of involvement also precludes the possibility of individuals exchanging information and learning from each other through extended dialogue and the consideration of alternative points of view.

### 7.1.5 Referenda

Most Canadians are aware of the concept of referenda. A referendum is where voters have an opportunity to vote “yes” or “no” on an issue at a regularly scheduled election or in a special election. The results are not always legally binding, but they may be designed to provide input and direction to politicians or decision-making bodies. The appeal of such a tool is in its strong, democratic attributes. Everyone has a chance to register their view. Power differentials between stakeholders mean nothing because each person only has one vote. Referenda have rarely, if ever, been used in forestry contexts in Canada. However, there have been three separate ballot initiatives that dealt with the issue of clear-cutting in the state of Maine over the last decade. A shortcoming of referenda is in the potential confusion due to the wording of the question. Some of Maine’s ballot initiatives were very technically complicated and highly prescriptive in terms of forest management practices. This is not the best use of the tool. Rather, referenda are more appropriate for receiving public feedback on clearly stated broad policy perspectives or management objectives. A clear statement of the question and a clear understanding of what “yes” and “no” votes mean are crucial to the successful application of this tool.

A key issue in referenda relates to who has the legal authority to initiate them and under what terms and conditions. Rarely would resource managers themselves initiate a referendum. More likely, the issue is brought to a vote by stakeholder groups who must attain a certain number of signatures on a petition to achieve the right to place the issue on a formal ballot. Referenda are not as popular in Canada as they are in certain states in the U.S. While referenda are strong with respect to principles of direct democracy, they are weak with respect to social learning and deliberation. Opposing sides of a ballot initiative will often spend considerable funds in advertising campaigns to sway voters. These obviously present a one-sided picture to the argument, and in some cases, the side with the deepest pockets wins. Also, referenda by themselves may not provide opportunities for social learning during the participatory process.

### 7.1.5 Survey

Social science surveys can be tremendously useful tools for defining forest values from the broader public or specific sub-sets. Their proper use, however, is usually more complex than is often assumed. There are a number of aspects of survey design and implementation that require careful consideration: among these are question or instrument design; defining the appropriate target population; assuring that the sample drawn is representative of that target population; data collection; and data interpretation. There are several types of social science surveys: mailed surveys, telephone surveys and face-to-face surveys are the most common. Face-

*Referenda have rarely been used in Canadian forestry, but have been used to deal with the issue of clear-cutting in Maine*

*A clear statement of the question and a clear understanding of what “yes” and “no” votes mean are crucial to the successful application of this tool*

*While referenda are strong with respect to principles of direct democracy, they are weak with respect to social learning and deliberation*

*Surveys can be tremendously useful for defining forest values from the broader public. Their proper use, however, is more complex than is often assumed*





to-face surveys are for more targeted populations, such as stakeholder groups or a policy network, though they could be used for the general population of a geographically confined area. They are generally more expensive than mail or telephone surveys and it is more difficult to get reliable results due to the number of surveys required to effectively represent the general public. Mail and telephone surveys are not without their problems. Telephone surveyors are struggling with call screening technology and a refusal to participate given the growing, widespread use of the telephone for marketing. Mail surveys are subject to a similar constraint. Many consider them to be “junk mail” and do not give them a second look.

All types of surveys are vulnerable to several types of bias. The first is *sampling bias*. Similar to a forest inventory or wildlife sampling, one must define the target population when sampling people and then develop a scientific sampling design to ensure that the sample drawn is representative of the target population. Failing to do so will result in a biased sample. Therefore, it is not acceptable to simply hand out surveys at a kiosk, public meeting or local event and claim that the results are representative of the local community. The second type of survey bias possible is *question bias*. Questions may be constructed to favour or induce a particular answer, deliberately or not. It is critical to pre-test questions and have survey instruments screened and critiqued by professionals that have no vested interest in the outcome of the survey results. Failure to take these measures may result in biased results with questionable legitimacy. It is better to get honest and defensible results based on an unbiased approach than to run the risk of wasting money or credibility on a poorly designed and/or implemented survey. The third type of survey bias is non-response bias where a large number of participants are recruited through random sampling techniques, but only a small number of individuals respond. Biases can emerge in this case when the responses from this small group are likely to be different from those who have not responded. With response rates of 50% or higher, these response biases become less of a concern.

There are many advantages to surveys. They are anonymous, so they allow for frank and open expression of ideas and opinions. They are probably the best mechanism for achieving a truly random sample and therefore one of the most accurate gauges of public opinion. In survey research, the researchers choose the research participants (and thus can randomize the sample of participants chosen). This is in contrast to so many other public participation mechanisms where the participants choose to participate themselves. Surveys are cost-effective relative to the quality of input received, though many decision-makers still have a mistrust of surveys and are hesitant to initiate new policy based solely on opinion research results. Surveys, if done properly, are an excellent device for demonstrating how an otherwise silent majority views an issue. As such, they may be useful in bolstering a policy-maker’s decision that may run counter to the interests of active, vocal stakeholders that hold a minority view.

In forest policy and planning, surveys are most appropriate for broad goal and objective setting exercises. They are an effective tool for assessing the general directions or balance of values that the public would like to see in the management mix. In some instances they may be used to gauge complex trade-

***Mailed surveys, telephone surveys, and face-to-face surveys are the most common***

***All types of surveys are vulnerable to several types of bias: sampling bias, question bias, and non-response bias***

***Surveys are one of the best mechanisms for achieving a random sample and therefore one of the most accurate gauges of public opinion; they are cost-effective and are an excellent device for polling the otherwise silent majority***

***In forest policy planning, surveys are most appropriate for broad goal and objective setting exercises – they are an effective tool for assessing the general directions of the public***

offs. Surveys are also useful for long-term monitoring. By taking the pulse of the community at regular intervals, it is possible to observe how values change and how effective forest managers have been at addressing concerns related to those changing values.

A potential weakness of surveys relates to questions involving specific operational or technical details. If people do not have enough information to make an informed decision, they will check the “don’t know” option on such questions or they will guess. This renders the impact of the survey less effective. In this regard, surveys are not particularly flexible instruments. Nor do they allow for much two-way flow of information. However, because surveys perform so well on a few key criteria (representativeness, allowing new participants a voice, and anonymity/frank expression of views), they are good tools to include in a public participation program.

**A potential weakness of surveys is when people do not have enough information to make informed decisions and check the “don’t know” option, which renders the survey less effective**

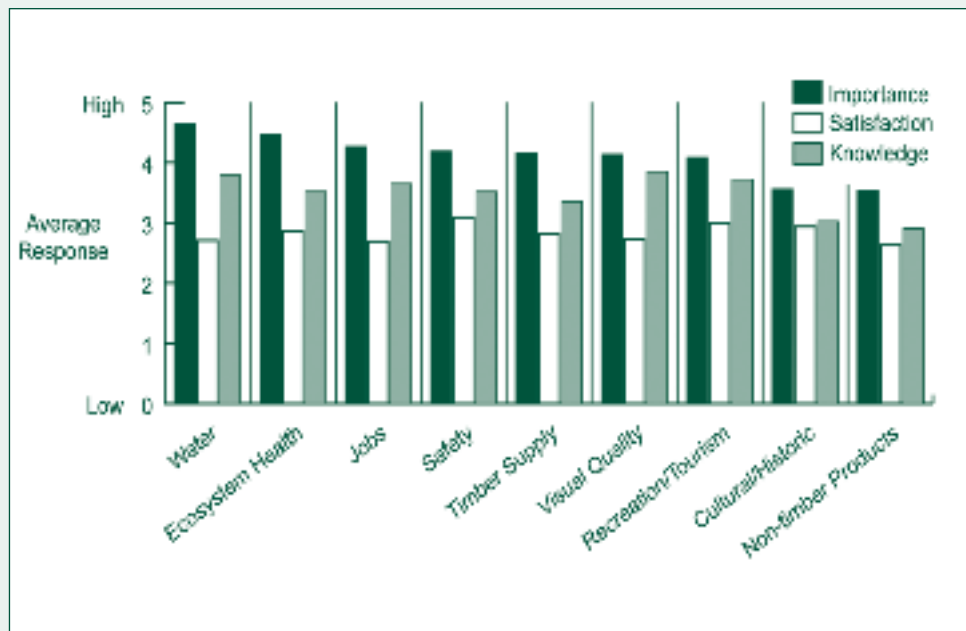


Figure 7 Survey results from the Arrow Forest District indicated that respondents considered most forest resource values as important (on a scale of low(1) to high (5)), that their overall knowledge levels differed between resource values (water and visual quality were highest), and their satisfaction with management of those values was moderate overall (Sheppard *et al.* 2004).





## 7.2.0 Direct Tools (Small Group)

### 7.2.1 Public Advisory Committee

Citizen committees are perhaps the most popular mechanisms for ongoing public participation within the forest sector, and such processes are used widely by certification systems such as CSA (2002) and FSC (2005). These committees involve a wide range of citizens who provide input into local- and regional-level forest management and planning. Forest companies or government agencies often sponsor these committees, and decision-making authority remains primarily within the hands of these sponsors, yet committees have an opportunity to directly influence outcomes to various degrees.

#### Direct Tools

- Public Advisory Committee
- Focus Group
- Workshop
- Internet – Group Discussion
- Round Table
- Design Charrette
- Public Multi-Criteria Analysis
- Alternative Dispute Resolution
- Citizen Jury
- Task Force / Legislative Committee

Groups range in size from 10-20 participants, and they often have formal terms of reference that outline the overall mandate, procedures for new membership, formal decision-making procedures, and agenda-setting activities. Members are rarely paid for their time, but sponsoring agencies may cover out-of-pocket expenses, and pre-meeting dinners are common. Professionally facilitated meetings, a clear mandate, and strong agency support usually improve the effectiveness of committees. In general, these groups are cost-effective, promote opportunities for extensive discussion and debate, and if facilitated properly, can foster positive social relationships (see Figure 8). On the other hand, as a small group, it is often difficult (or disadvantageous to the sponsoring organizations) to incorporate a broad range of public values, and sponsoring organizations can tightly constrain discussions and limit the information to which participants are exposed.

#### Characteristics of a Successful Public Advisory Committee

- The committee maintains some autonomy in setting the procedures for discussing forest management issues. This includes autonomy over what kinds of issues are discussed and how and where technical information is accessed.
- The committee seeks to include a broad range of public interests in all discussions and decision-making activities. In some cases, a rotation of public representatives instead of static membership may be appropriate.
- Stakeholders who are unwilling or unable to participate on a regular basis are invited to provide periodic information or technical presentations to the group. This information allows the group to maintain an active dialogue with a wider range of public interests (Paraphrased from **Parkins 2002**).

*Citizen committees are perhaps the most popular mechanisms for ongoing public participation within the forest sector*

*Companies or government often sponsor these committees, who retain decision-making authority*

*These groups are cost-effective, promote discussion and debate, and can foster positive relationships*

Figure 8 Characteristics of a successful public advisory committee.

*A focus group is a forum for group interviews where the emphasis is on group interaction to produce information that the moderator would not easily obtain otherwise*

*As with other methods, representation of the wider public interests is key*

*Workshops provide a forum for invited guests to perform specific activities to achieve preset objectives within a given time frame*

*The distinction between workshops and other meetings, is that participants are expected to work together to achieve a goal, as opposed to simply sharing thoughts*

### **7.2.2 Focus Group**

Focus groups can be formally or informally organized to bring together small groups of people who have been randomly selected or carefully chosen to represent various interests, for the purpose of interactive and spontaneous discussions of one particular topic or concept. The process is conducted by a facilitator or moderator. The conventional definition of a focus group applies to a forum for group interviews where the emphasis is on group interaction to produce information and insights that the moderator would not easily obtain otherwise (Morgan and Krueger 1998). Focus groups can be used at any stage of the public participation process to accomplish various tasks, such as gathering information, defining issues, setting criteria, testing ideas, and providing data on perceptions or evaluations. 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 individual focus groups representing particular stakeholders, to give each group a voice unhindered by the presence of other groups or opponents, so that tensions are lowered and information is exchanged in a more considered, contemplative atmosphere conducive to deliberation. This can be useful in communities which are already marked by polarized interest groups and conflict. The views and ideas of different focus groups can be communicated to all focus groups by the facilitator. This places considerable demands on the facilitator to summarize and fairly present information from multiple groups.

An allied technique is the community dinner. As an alternative to more structured and formal workshop settings, community dinners provide a more relaxed atmosphere to discuss topics of interest to community residents (see Carr and Halvorsen 2001).

### **7.2.3 Workshop**

Workshops provide a forum for invited participants to perform specific activities to achieve preset objectives within a given time frame. These workshops can be used to set agendas and strategies, such as “visioning” or “brain-storming” sessions, or to generate new or preferred solutions. The term “workshop” refers to the structure or procedure for participation, rather than to particular types of participants or stages in the decision-making. It is a somewhat generic term since workshops can take many forms. They can be structured for small or large groups, and scheduled over an afternoon or consist of a series of 2-3 day workshops (Hislop and Twery 2001). The main distinction between a workshop and other group meetings, such as focus groups, is that workshop participants are expected to work together to achieve a goal or develop a product or outcome, as opposed to simply sharing thoughts and exploring issues.

This tool is a clear example of a collaborative technique. It can be very productive if the goals are realistic and achievable but can take a considerable amount of organization to be successful, particularly if opposing sides are included in the same workshop. This technique may present challenges in summarizing the outcomes and documenting the process/results. Workshops often rely on the use of other tools, such as response sheets or prioritization exercises, as part of the procedure.





### 7.2.4 Internet – Group Discussion

As Internet usage becomes more common, especially in rural areas, this resource is becoming an important way for people to work together without having to be in one location. The “Internet study circle” is one example of a cyber meeting. People are selected from different backgrounds and viewpoints. They meet several times on-line to relate experiences and perspectives on a given topic. Generally about 20 people are involved in this process. Participants are expected to read preliminary information that is sent out, be somewhat familiar with the Internet, agree to follow specific ground rules, listen carefully and respect one another’s opinions. A facilitator helps the group to focus on different viewpoints and helps the discussion move along. Although it may be a low cost and flexible way of inviting comment from geographically dispersed individuals, this method can be impersonal and may attract users who are less serious about the issues, or who employ more abrasive tactics. Similar to other small group activities, those who do participate may not accurately reflect the views of the general public. For an example of an Internet study circle, refer to the Delta Project in E-Democracy [<http://www.unb.ca/cesir/project.html>].

### 7.2.5 Round Table

The round table process has been employed extensively throughout Canada as a means of achieving multi-stakeholder consensus on environmental policy and sustainable development. By the early 1990s, round tables were underway in every Canadian province as a means of achieving multi-stakeholder commitments to sustainable development policies in health, education, or the environment (Howlett 1990). The first National Forest Round Table opened in 1991 with representatives from diverse backgrounds including government, industry, labour, environment, First Nations and academia. This process developed a vision and principles for sustainable development of Canada’s forests as well as more specific recommendations regarding policy and action toward this vision.

As a high-level process, the round table serves as a useful mechanism to bring a diverse group of stakeholders together (usually 15 to 25 individuals) to discuss and debate policy alternatives and provide recommendations to decision-makers. The time frame is often intensive, with high-level delegates taking time to participate over four or five days, in order to achieve some unified outcome. Often initiated as a high-profile event, such round table initiatives serve as a useful way of drawing attention to issues and making recommendations that attract the attention (and often the participation) of decision-makers. It is susceptible to criticism, however, because the round table participants are chosen by round table organizers and some important stakeholders may not be invited to the table. The individuals who are selected to participate may have impressive backgrounds but may not necessarily represent all public values or interests in a particular issue. Round tables can sometimes also contribute to “hardening” of stakeholder positions with their focus on bargaining and positioning rather than the common good.

### 7.2.6 Design Charrette

The design charrette attempts to develop solutions to a particular design problem or issue. It is a highly structured and carefully facilitated process that identifies and ranks the most critical issues after careful consultation with participants who represent a wide range of local interests. This process is also facilitated by forestry

*The Internet is becoming an important way for people to work together without having to be in one location – especially in rural areas*

*The round table process has been used extensively in Canada as a means of achieving multi-stakeholder consensus*

*The round table brings together a diverse group of stakeholders, but selected individuals may not necessarily represent all public interests*

*The design charrette attempts to develop solutions to a particular design problem or issue*

specialists, landscape and graphic designers, and engineers who provide assistance by determining the spatial distribution of these critical issues on the landscape. Upon completion of the charrette, a spatial representation (site plan identifying various land uses and management zones) is prepared, displayed, and discussed, together with a written report summarizing the identified issues and the proposed policies/solutions for submission to the governing agencies.

The term “charrette” comes from the practice of 19<sup>th</sup> Century architectural design training in France (Proft 2003). Applied to forest management, it implies a team approach focused on a design or spatial solution (such as landscape-level planning to protect watersheds and recreational development) with detailed planning at the tactical or operational levels. Charrettes are usually a time-intensive, one-time event of one or more days’ duration, creating an atmosphere conducive to creative brainstorming, collaboration, and problem solving. Charrettes require a well-defined work program: unlike other types of participatory group sessions, such as focus groups, round-table discussions, and visioning exercises, where the process is directed at idea generation and goal formulation, charrettes are undertaken when there has already been agreement on a particular design problem or goal.

Charrettes bring together a diverse range of perspectives and expertise in order to collaborate on a design problem and to negotiate innovative and mutually agreeable solutions not reachable by other methods. They are visually and graphically based using plans, diagrams and illustrations to render the physical consequences of various decisions and show alternatives that can then be debated in a wider decision-making forum. Charrettes that directly engage communities in a public participatory format (Condon *et al.* 2002) can be the most challenging to do well, since different levels of expertise are thrown together in a hot-house context. Done well, charrettes are highly time- and cost-effective tools for understanding and then addressing the necessarily multiple management objectives, leading to design alternatives of which the local community has ownership. They have been used mostly by certain municipal communities and urban design teams in North America, though they have application to both urban forestry and rural forest planning.

### **7.2.7 Public Multi-Criteria Analysis (MCA)**

MCA refers to a decision-support approach developed for complex problems involving trade-offs between multiple objectives, where both quantitative and qualitative aspects of the problem need to be addressed (Mendoza *et al.* 1999). The participatory type of MCA, here termed Public MCA (Sheppard 2005), provides a structured collaborative process for combining multi-disciplinary expert evaluations and public input. Stakeholders in focus groups participate in prioritizing various criteria and indicators by attaching weights to each, and these weights can then be used to derive scores for alternative forest management scenarios (Sheppard and Meitner 2003). The criteria and indicators are usually developed by technical experts based on initial consultation with stakeholders, who are often also involved in selecting or confirming the scenarios to be

*Charrettes are a time-intensive, one-time event of one or more days’ duration, creating an atmosphere of creative brainstorming, collaboration, and problem solving*

*Done well, charrettes are time- and cost-effective for understanding and addressing multiple objectives, leading to design alternatives*

*MCA is a decision-support approach for complex problems involving trade-offs, where both quantitative and qualitative aspects need to be addressed*





evaluated. The process may run through several iterations or cycles before converging on a preferred scenario and may make use of a number of other tools (eg. focus groups, questionnaires, etc.).

This technique does not require the complexity and specialization of more sophisticated mathematically-based decision support models. It offers several other advantages:

- 1) it provides a structured, iterative, educational process for explicit consideration of, and input to, multiple objectives and criteria.
- 2) it transparently demonstrates the effect of different stakeholder priorities on the analytical outcome to provide an accountable “trustworthy process”.
- 3) it combines both expert and stakeholder opinions while managing stakeholder influence over the process.
- 4) it facilitates consensus among stakeholders and decision-makers without large public meetings or majority voting on alternatives, as demonstrated in Brown *et al.* (2001).
- 5) criteria weightings of stakeholder values or priorities used in MCA approaches can be used for a number of different iterations (eg. revised SFM scenarios) without the need to collect additional data from the public (Martin *et al.* 2000). Considerable caution needs to be used, however, in wider applications of previously gathered public weightings.

### **7.2.8 Alternative Dispute Resolution (ADR)**

As an alternative to legal action, alternative dispute resolution (ADR) procedures represent a way in which two parties can work through their differences and arrive at a solution that is acceptable to both sides (Ordover 1993). Mediation, arbitration, and expert fact-finding represent forms of ADR. More specifically, mediation is a process where parties to a dispute are aided by a neutral facilitator who assists the parties in arriving at a negotiated settlement. This voluntary process is completely confidential and is most beneficial when questions of fact are the primary obstacle. The mediator is normally well-versed in the particular issue and facilitates an atmosphere that promotes active listening, the identification of real interests, reality testing, and fact gathering. Mediation can provide a cost-effective alternative to the court system. However, mediation is less successful when issues involve considerable amounts of technical evidence or when disputes are highly emotional. Under these conditions, binding arbitration may be a more suitable procedure. Most provinces have ADR resource centers and can provide access to trained mediators. The U.S. Forest Service recently adopted mandatory ADR provisions in their National Forest planning legislation (see Floyd *et al.* 1996).

*Stakeholders prioritize criteria and indicators by attaching weights to each, and these weights can be used to derive scores for alternative management scenarios*

*ADR is an alternative to legal action in which two parties can work through their differences and arrive at a solution – mediation, arbitration, and expert fact-finding are forms of ADR*

*Most provinces have ADR resource centers and can provide access to trained mediators*

*Also known as citizen panels, values juries, or consensus conferences, the citizen jury is not yet common in forestry*

*A citizen jury is a group of 12 to 24 diverse citizens that carefully examines an issue of public significance by hearing from experts and deliberating on the issues*

*Task forces or legislative committees are formal attempts to gather information on the public's policy preferences*

*They may be effective for formally documenting stakeholder positions, but are of limited use in gauging the views of the general public*

### **7.2.9 Citizen Jury**

Also known as citizen panels, values juries, or consensus conferences, the citizen jury became a more common form of public participation during the 1980s and 1990s for issues such as transportation and genetic testing, though it is not yet common in forestry. A citizen jury is usually a group of 12 to 24 diverse citizens selected at random from (or to be demographically representative of) their organization, community, or region, to carefully examine an issue of public significance (Brown *et al.* 1995). Jurors are paid a stipend for their time. They hear from a variety of expert witnesses and are able to deliberate together on the issues. It is professionally facilitated to achieve consensus on how to address sensitive issues. On the final day of their moderated hearings, the Citizen Jury presents its recommendations to the public. Its final statement is released to both appropriate authorities and the larger population it represents, usually through the media. After that, the jury usually disbands, just as a trial jury does when its work is done.

Relative to other mechanisms for public participation, citizen juries can be time saving and cost-effective. They are also particularly well suited to controversial situations. Although they seek a balance of views, citizen juries are often subject to bias in the selection of jury participants, and they tend to require special attention for minority or silent groups within society that might otherwise not be involved in such processes. In addition, time requirements are difficult to assess in advance, and sponsors may be faced with difficult choices between prolonged discussions that lead to gains in understanding and the potential drop in motivation as time goes on. Visit the Co-Intelligence Institute [<http://www.co-intelligence.org/P-citizenCC.html>] for additional information.

### **7.2.10 Task Force/Legislative Committee**

Task forces or legislative committees are formal attempts to gather information on the public's or stakeholders' policy preferences. Task forces are usually comprised of high profile persons with a particular stake or expertise in the area of interest. A task force is often charged with a broader mandate to weigh public participation with other forms of information (technical advice, science reports, etc.) in order to make recommendations on a given topic. Legislative committees are also a listening exercise. They usually result in a report back to the legislature. Legislative committees are frequently covered by the media and thus give significant profile to an issue for a period of time. A downside to this format is that they are formal, time constrained, and often attract the usual vested interests that bring forth very predictable positions. They may be an effective method for formally documenting stakeholder positions, but they are of limited use in gauging the views of the general public.

A key advantage of a task force or legislative committee is that it provides stakeholders or members of the public with direct access to decision-makers or to high profile individuals who have the ear of decision-makers (in the case of task forces). It tends to be expensive to conduct and is usually implemented only to examine major policy issues with long-term consequences.





### **7.3.0 Direct Tools (Large Group)**

#### **7.3.1 Open House**

Open houses are somewhat similar to town hall meetings in that an open invitation is extended to the public to come to a forum to express their views. The main difference with an open house is that a more formal effort is made to inform or educate the public on a particular issue. Open houses are a forum for presenting resource management options to the public, often with the assistance of maps, GIS programs and other visualization tools. Sponsors of an open house should have both technical and managerial (ie. decision-makers) staff present at such events. This is important for two reasons. If open houses are staffed with only public relations staff, the public may come away feeling that the sponsor was trying to “sell” them on a course of action already decided upon. Secondly, it gives decision-makers an opportunity to hear public concerns and issues directly, rather than receiving information second hand that may be filtered or interpreted incorrectly. There could be negative consequences if managers do not receive an accurate assessment of public sentiment.

Attendance at open houses is often a problem as they are generally scheduled as part of regular planning cycles rather than when contentious or high profile issues arise. Therefore, it can be difficult to recruit the public to attend such events. One strategy to counteract this is to take the event to the public rather than expecting the public to come to the event. Holding open houses at shopping malls, popular sporting events (with permission), or other well-attended public events or spaces can vastly improve the success of this public participation tool. Open houses are relatively cost-effective, with staff time and the production of maps and other visuals being the primary expenses. The additional expense of committing higher level staff resources is offset by benefits accrued if the event is well attended.

#### **7.3.2 Public Hearing**

Public hearings are formal instruments for gathering public input. More often than not, public hearings are sponsored by government institutions and are mandated for certain types of development or large-scale resource management changes. Public hearings are usually formal components of environmental impact assessments (EIAs). In some provinces and territories, long-term strategic forest planning processes involve EIAs with an associated public hearing process. In some instances, groups or individuals may qualify for “intervenor status” to prepare and participate in the public hearings. Intervenor status is usually granted to those that are directly affected by the proposed change or resource development. The structure usually involves a panel of experts and/or decision-makers who listen to and consider arguments brought forth in individual presentations by affected parties.

Public hearings usually have the advantage of having the force of law behind them. As such, the panel to whom the presentations are made usually holds decision-making authority. However, this legalistic aspect to public hearings may

*Open houses are open invitations to the public to express their views, and are a forum for presenting management options to the public*

*Attendance is often a problem – one strategy to counteract this is to take the event to the public in venues like shopping malls and sporting events*

*Public hearings are formal instruments for public input which usually involves a panel of experts who consider arguments brought forth by individual presentations*

*Public hearings have the advantage of having the force of the law, but may not be the best reflection of what the general public feels*

also be a weakness. If a decision does not go the way a particular group wishes, the results may be subject to court challenges and appeals. This may add to the expense of public hearings. Another advantage of public hearings is that they are usually high profile events. This helps to inform the public, through media coverage of the hearings, on the event or issue at hand.

Public hearings usually attract vested individuals, stakeholder groups and their professional spokespersons. Therefore public hearings may not be the best reflection of what the general public feels, but rather provide an opportunity to hear diverse stakeholder perspectives on an issue.

### **7.3.3 Town Hall Meeting**

Town hall style meetings are generally open meetings, intended to give voice to public concerns about a contested issue or a resource management problem. Town hall meetings are usually successful (in terms of attracting interest) if there is a high profile issue at hand, even if only in a local context (e.g. recreational ATV access to a certain portion of a forest license). A town hall meeting can take a number of formats. Government or industry resource managers may facilitate such an event themselves. However, if that is the case, he or she should have capable scribes to record the comments and responses. Another option is to record the event (video or audio) so that the results may be reviewed at a later date. More often, sponsors of town hall meetings opt to hire an objective, third-party facilitator to manage the proceedings. In that case, there still needs to be an individual or a panel responsible for responding to the public's queries. Questions that panelists cannot answer immediately can be recorded and addressed later.

In some cases, town hall meetings start with an overview presentation to the entire group. The information presented should be uncomplicated, accessible, relevant and use a small proportion of the total time allocated to the event (e.g. 25% or less). The public will get understandably frustrated if they are invited to an event to express their views, only to find the first hour of a two-hour event is cluttered with a formal presentation containing confusing jargon and technical detail.

Town hall meetings can be effective tools for putting resource managers face-to-face with those concerned about resource management issues. They are also effective at exposing various stakeholders to each other's ideas and perspectives. Often people come away from these types of meetings with a realization that the sponsor of the meeting is actually trying to balance the varied and conflicting interests of a large number of stakeholders. Town hall meetings may not result in concrete output from the public in terms of specific management recommendations, but they can be useful for gauging the level of public concern over an issue. Another advantage of town hall meetings is cost-effectiveness relative to the quantity and quality of input received.

Town hall meetings can be a risk, however, when expectations are raised for change beyond what the sponsoring institution is willing to make. For example, at a public meeting on the protected areas strategy in New Brunswick in 1999, around 800 people showed up, a third of whom left as soon as they realized that

*Town hall style meetings are open meetings intended to give voice to public concerns*

*Information presented should be uncomplicated, accessible, relevant, and use a small proportion of the time*

*Town hall meetings can be effective tools for putting resource managers face-to-face with those concerned*





the plan only applied to Crown land and that it would not enable a “taking” of private land by the government. This illustrates another point. It is important to clearly articulate the scope of proposed policy changes in advance of meetings to avoid such misunderstandings. An additional risk of town hall meetings is participant disappointment if too large a group shows up and everyone does not have a chance to participate. Thus, success in terms of numbers may lead to failure if a significant number of people leave feeling they did not have an opportunity to voice an opinion.

Town hall meetings are also risky if organizers “lose control” of the meeting due to particularly effective grandstanding. This alone is reason enough to seriously consider the extra expense of a trained facilitator. If such situations are not handled effectively, the more moderate attendees may avoid future events of a similar nature. Most people avoid hostile, confrontational environments. In that regard, town hall meetings may be more effective in the early stages of an issue or problem, before entrenched positions are established by particular stakeholder groups.

### **7.3.4 Deliberative Polling**

Deliberative polling is a relatively recent development in public consultation (Fishkin 1991). As a variant of opinion polling, this method is suitable for large-scale consultations with several hundred individuals in one large-group setting, especially when the topics are complex, scientific information is uncertain, and several clear policy options are under consideration. Deliberative polling invites a random sample of individuals to participate in an extensive, often weekend long, exploration of issues and debates between lay people and experts pertaining to scientific evidence and related policy alternatives. In advance, a balanced portfolio of written materials is provided to participants, with extensive input from divergent and often conflicting stakeholders. These materials, along with question and answer periods between experts and lay people, form the basis of extensive group deliberations. At the end of the deliberative period, participants complete a questionnaire and provide informed public opinions on the matters at hand. If scientific random sampling techniques are closely followed in the initial selection of participants, the results of this poll can be extrapolated to the general population based on the premise that once informed of the issues in this way, the general public views would be consistent with those expressed by the smaller group.

This mechanism for public participation is useful in bringing a representative sample of citizens into a public process to address a large and often complex array of information. It is well-suited to situations where important and potentially costly trade-offs are at stake and where major changes in policy may be warranted, but are not yet publicly acceptable. The weakness of this mechanism relates to cost and implementation challenges. Travel, food, hotel, and daily stipends for day or weekend-long participants can be very expensive. Also, developing a balanced portfolio of materials on a particular issue can be very time-consuming and involve intensive discussions with many stakeholders. Finally, few social scientists or consultants have experience in this process, and conducting such a process may require a multi-agency initiative between government, industry and a university.

See the Center for Deliberative Democracy at Stanford University for more information (<http://cdd.stanford.edu/>).

*Town hall meetings can be risky if people leave feeling they did not get to voice an opinion, or if organizers “lose control” of the meeting to grandstanding – for this reason consider the extra expense of a trained facilitator*

*Deliberative polling is a recent development in public consultation, and is a variant of opinion polling*

*Deliberative polling invites individuals to participate in an extensive exploration of issues between lay people and experts*

*Deliberative polling is well-suited to situations where important and costly trade-offs are at stake and where major changes in policy may be warranted*

*A number of new and innovative tools and techniques have become available*

*Self-directed photo surveys of the local forest area can be useful in engaging the public in mapping sense-of-place values and social sustainability criteria*

*Communities have found it helpful to compile and develop spatial databases integrating aspects of community life – made web-accessible or available through centralized facilities*

*Enhanced technological capabilities have enabled development of 3D visualization approaches – including past, present and future landscape scenarios – which can be highly effective in eliciting meaningful public comment*

*New decision-support tools are being developed that integrate expert-developed spatial modeling with real-time visualization*



## **7.4.0 Emerging Tools and/or Technologies**

A number of new and/or innovative tools and techniques have become available with potential to support participatory processes in sustainable forest management. These techniques are generally designed to convey information or technical detail to the public through visual means.

### **7.4.1 Photo-Assisted Methods**

Self-directed photo surveys of significant places and conditions of the local forest area, and related community mapping techniques for use by local people, can be useful as a means of engaging the public in mapping important sense-of-place values and determining locally meaningful social sustainability criteria (eg. Dakin 2001; **Beckley et al. 2002**; Achiam 2002). This is a “low-tech” and inexpensive approach almost universally applicable in early planning stages.

### **7.4.2 Community-based mapping with Geographic Information Systems (GIS)**

Various communities have found it helpful to compile and develop community spatial databases integrating many aspects of community life (eg. Al-Kodmany 1999; Smith and Taylor 2000; Aberley 1996). These can be made web-accessible or available through centralized community facilities, to promote access and updating. Some First Nation examples of mapping, such as the Stó:lō – Coast Salish Historical Atlas (Carlson 2001), become major cultural repositories of local knowledge and resources, with considerable community ownership and relationship building as part of the process, and are of educational value. Considerable computing and staff resources are needed to keep this work organized and running with large databases.

### **7.4.3 3D Visualization**

Enhanced technological and modeling capabilities have enabled the development of 3D visualization approaches for use in forest management planning. 3D visualization of landscapes, including past, present and possible future landscape scenarios (Sheppard and Salter 2004), are built on increasingly available GIS databases. They can simplify understanding of complex spatio-temporal forest conditions or plans, and are capable of engaging the public effectively. Most systems can provide the high levels of realism usually preferred by the public, although more abstract 3D modeling is simpler (and some would say safer) to produce. Early evidence from studies of realistic visualizations tested with communities (eg. **Lewis 2000**; Tress and Tress 2002; Meitner et al. 2005) suggest that visualizations can be highly effective in eliciting meaningful public comment, though questions remain on the limits of their validity and the ethical constraint needed to avoid biasing participants’ perceptions (Sheppard 2001). Various software programs are available commercially, though most require considerable investment in training and continuing use in order to maintain this sophisticated capability.

### **7.4.4 Real-Time Integrated Display Tools**

New decision-support tools are being developed which integrate expert-developed spatial modeling with real-time visualization (see above), to enable participants to see both animated 3D landscape presentations and linked tabular or mapped data on selected criteria and indicators. This is meant to allow people to consider simultaneously both their “gut” preferences based on visual perception (left brain)



and their analytical judgements (right-brain) based on “scientific” information. With commercially available systems such as Community Viz (<http://www.Communityviz.com>), new “what-if” scenarios can be developed on-the-fly, and results refreshed on screen in seconds. These highly interactive tools promise to be very engaging to participants and a valuable learning tool. However, in addition to the concerns (described in the previous section) about possible visualization bias, the validity of the underlying models and the rapid decision-making processes are unknown at this stage.

#### **7.4.5 Interactive Response Capture**

This term refers to recently developed techniques of automating participant response for almost immediate analysis and display of results. Systems such as touch screens on computer monitors or touch-pads in theatres or council chambers allow mass voting by participants on set questions resulting in a real-time survey approach with automated data analysis. Depending on the system, results in the form of simple descriptive statistics (eg. bar charts) can be displayed on the screen to give rapid feedback to participants, similar to systems used in some TV shows for entertainment purposes. The Sustainable Development Research Institute (SDRI) at UBC in Vancouver has used this technique with its QUEST modeling program to gather information on stakeholder priorities for various sustainable development strategies and on participants’ belief systems and values in relation to the environment ([http://www.sdri.ubc.ca/research\\_activities/tools.cfm](http://www.sdri.ubc.ca/research_activities/tools.cfm)). Obviously, this requires sophisticated and somewhat expensive technology, which is very often located in a dedicated meeting facility. This limits its use to centralized facilities in more urban settings, although some more portable technologies are now emerging. The potential advantage is in the speed of analysis and rapid feedback to participants coupled with the ability to engage audiences. However the implications of this interactivity on group dynamics, decision-making, and long-term success of the participatory process are not yet clear.

#### **7.4.6 TV-Based Participatory Tools**

A range of techniques is available for local polling and dialogue via cable TV channels. This promises broad and open participation to locals and other interested publics with instant opinion polling, though the scientific rigor of the analysis and reporting methods associated with these systems can be in question.

## **8.0 Selecting tools for public participation processes and programs**

In previous sections it was suggested that a broad range of potential tools for identifying public values and engaging public citizens in forest management and planning activities is important. Forestry is often defined as the art and science of producing social goods and services from forest land. In this definition, the “art” refers to the creative process of selecting silvicultural prescriptions from a broad suite of management tools to produce desired outcomes. When considering the broad range of competing and complementary objectives a manager may have for a single piece of ground, it is easy to see the creativity involved in the practice of forestry and thus the reference to the term “art”. The range of possibilities, in combination with the specific attributes of any given piece of ground, is quite astounding.

*Interactive response capture refers to recently developed techniques for automating participant response for immediate analysis and display, such as touch screens on computer monitors*

*The potential advantage is in the speed of analysis and rapid feedback to participants coupled with the ability to engage audiences*

*A range of techniques is available for local polling and dialogue via cable TV channels*

*A broad range of potential tools for identifying public values and engaging the public in forest management is important*

***Like a manager considering the broad range of silvicultural options, it is important to get the right tool for the job in reference to public participation***

***A critical point is that no single tool fulfills all the criteria for an effective public participation mechanism – forest managers should use a suite of tools in a public participation program***

***Often forest managers have initiated public participation activities after initial planning and mapping activities have been completed, giving the impression that plans are somewhat finalized – important public participation components should occur within the early stages of planning***

The same analogy can be used in reference to the use of public participation mechanisms. It is important to get the right tool for the job. Some of the tools described here are effective for gathering public values on fairly general issues. These tend to be indirect methods like surveys or referenda. There is little opportunity for participants to learn more and to become more informed about an issue by participating in these activities. They are static and inflexible, but they are often cost-efficient, anonymous, and most importantly, representative of the broad public (as opposed to reflecting the values of a smaller group). Conversely, direct, face-to-face processes such as advisory boards, workshops, and round tables provide great opportunities for learning; they give something back to participants, and they are flexible. They are most useful for establishing dialogue between individuals with diverse values and interests and identifying workable solutions that involve a high degree of complexity and uncertainty. Notwithstanding these advantages, these tools are often not representative beyond a small and local public and, therefore, are not satisfactory for determining broad social goals and objectives.

A critical point to bear in mind is that no single tool fulfills all the criteria for an effective public participation mechanism. Some of the evaluation criteria have inherent, internal contradictions built into them. For example, in order for a survey to produce useful results across a broad, randomly selected sample, it must be inflexible. That is, you must ask exactly the same questions of each person surveyed. In this case, inflexibility guarantees a robust and valid data set. In contrast, flexibility is key for processes that involve extensive deliberation. Participants need to be able to get the information they desire so that learning can occur and various ideas and options can be floated, discussed, critiqued and modified. Deliberative processes work especially well in small- to medium-sized groups. Therefore, the desirable quality of representativeness will likely be compromised to accommodate the desirable quality of flexibility. This is precisely why it is recommended that forest managers use a suite of tools in a public participation program and avoid relying on a single tool to get the job done.

Hislop and Twery (2001) produced a matrix organizing appropriate techniques against the various stages of the decision-making process and the number of stakeholders involved. A simple version of this classification of tools by stage in the public participation process is provided in Figure 9. Several features of this diagram are noteworthy. First, public participation activities are arrayed across the entire planning process. Forest managers have often initiated public participation activities after initial planning and mapping activities have been completed. This gives the public an impression that plans are somewhat finalized and only small changes are possible. Figure 9 points to an important public participation component within the early stages of information gathering and goal identification. Second, as the planning process continues, public participation activities make a transition from more extensive activities that involve a large number of people (through website submissions, toll-free numbers, and mail surveys) to more intensive activities that involve smaller numbers of people (in small group settings such as workshops, advisory committees, and task groups). This transition reflects a natural flow of activity that moves from broader goal setting to more specific, planning-oriented activities.





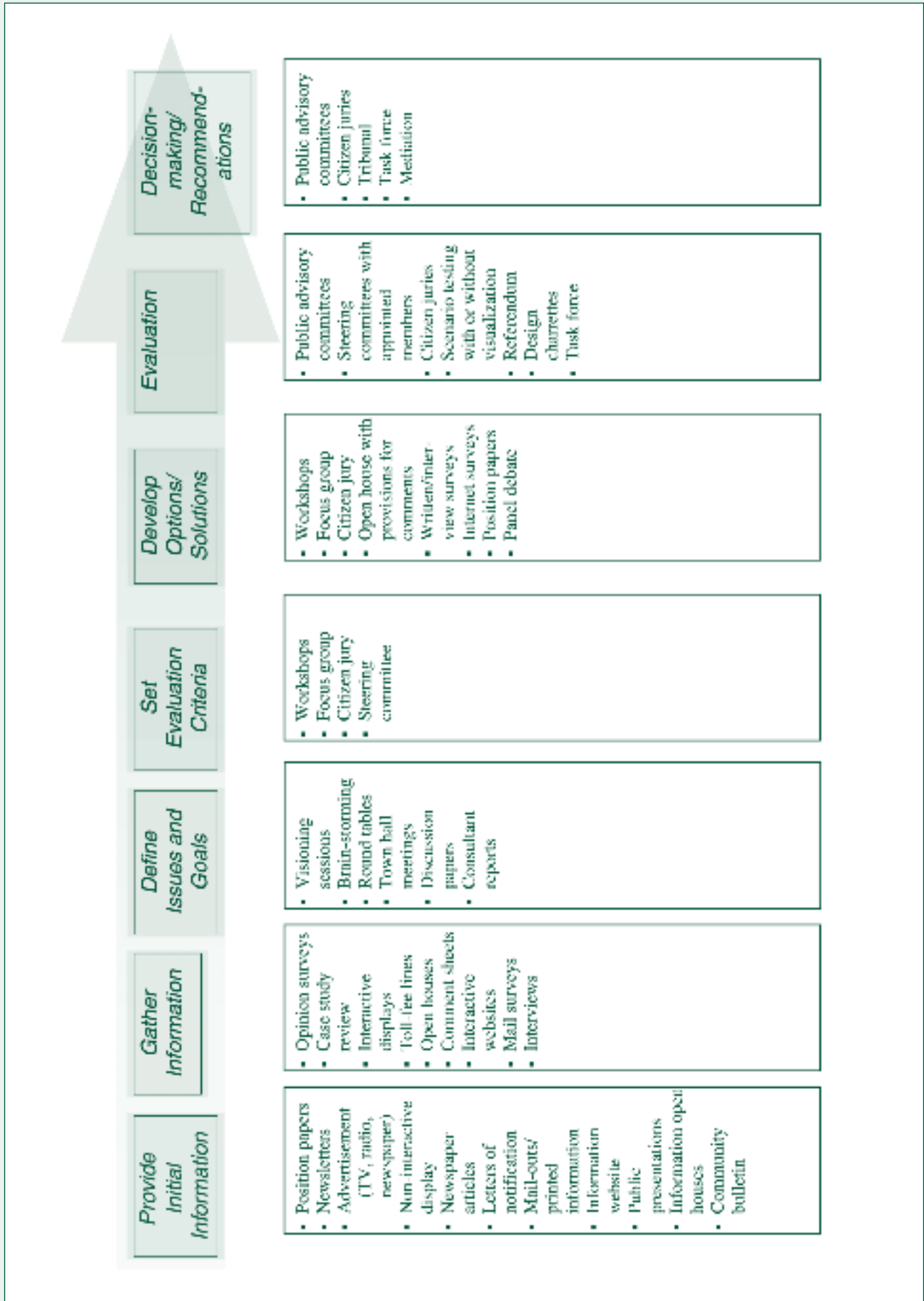


Figure 9 Appropriate tools for different stages in a participatory planning process (adapted from Hislop and Twery 2001; Sheppard and Achiam 2004).

***Before a public process is initiated, a stakeholder analysis needs to be conducted to determine who the relevant publics and stakeholder groups are – this is used to select the appropriate participatory tools***

***It is important that public representatives become involved in the planning of the participatory process and planning of tools***

Before a public process is initiated, a stakeholder analysis needs to be conducted to determine who the relevant publics and stakeholder groups are (Pearce *et al.* 2003; Sheppard and Achiam 2004). This should be used to inform the selection of appropriate participatory tools. A careful stakeholder analysis early on is essential: omissions or misrepresentation at this stage can hamper success throughout the remaining stages. Stakeholder analysis requires a thorough search of stakeholder groups and contact details, including affected individuals, non-organized stakeholder types (whether involved in or excluded from the usual processes), and a sample of the wider public (see text box below). 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 in particular participatory techniques without further assistance or capacity-building.

**A typical range of stakeholders in Canada might include:**

- Indigenous communities, if present
- Other neighbors, local residents, and the community at large
- Industry, labour and local economy interests
- Special interest groups representing other forest users, such as tourism providers, recreation user groups (including visitors), environmental groups, and non-timber forest products users
- Government agencies
- The general public (from larger geographic scales)
- Experts (to provide technical knowledge)

It is also important that public representatives become involved in the planning of the participatory process and selection of tools. This is widely recommended in the literature and specifically called for in the CSA certification standards for public involvement (CSA 2002). It helps build trust in the process and can avoid problems later by demonstrating that the agenda and process have not been pre-defined.

The poster that is included with this document (see inside front cover) is meant to summarize a great deal of information on the positive and negative attributes, the benefits and costs, and other factors that forest managers and practitioners can consider in making choices about specific public participation tools. For instance, in designing a comprehensive public participation program, it will be important to select a suite of tools that complement each other. A survey may be used to canvass a random sample of citizens regarding their views on forest management. This tool will provide insights into the preferences of the so-called silent majority but a complementary process involving more in-depth discussion may also be required through focus groups or advisory committees. These direct methods allow people to learn about other perspectives and to revise their personal preferences in light of these perspectives. In this way, the poster can assist practitioners in designing a suite of complementary tools.





### Key Messages

- No single tool meets all the criteria for effective public participation.
- A suite of tools is needed for a participatory process.
- A stakeholder analysis should help identify which tools are appropriate for different stakeholders.
- Stakeholders should be included in designing the participatory process.
- Participatory processes may apply indirect tools, such as surveys, early in the process to obtain broad public input (including the silent majority) on general issues, attitudes, and priorities.
- Later in the process, more intensive, direct tools may be useful to work through complex issues with smaller (but still representative) groups.

## 9.0 Roles and Responsibilities: Who should do what, when and how often?

In addition to the question of “what should we do?” is the question of “who is responsible for gathering public input?” Industry, governments, the media, ENGOs and other groups may all have a role or specific legal responsibilities with respect to collecting public input for use in forest management. Over the past decade, a general decentralization and a privatization of public participation activities has been observed across the country. This trend is derived from policies associated with government downsizing as well as forest certification initiatives that place a high value on company-sponsored public participation activities. In this climate, one might assume that the public sector (provincial, territorial and federal) is somehow off the hook when it comes to undertaking more rigorous public participation activities. To the contrary, governments will continue to set broad land management goals and objectives with the option of doing this through more expert-based and elite decision-making models or more democratic planning processes.

To date, land use planning and policy have commonly followed a parliamentary model of democracy where decision-makers acquire decision-making authority through official political channels (from members of the legislature through to high level bureaucrats). As noted in Sections 2.0 and 4.0, this model is being challenged by a more diverse array of public values and a degree of scientific complexity that demands a greater public role in deciding how public resources will be managed and who will benefit. These conditions are already creating much more public space for a participatory model of democracy within the planning phases of many regional and company-specific plans across the country.

*Industry, governments, the media, ENGOs, and other groups all have a role with respect to collecting public input for use in forest management*

*Demands for a greater public role in resource management have created much more space for a participatory model of democracy in the planning phases*

***Governments can continue to play an important role in gathering information and in defining issues and goals – especially when information is needed from a large cross-section of the general public***

***Forest companies, community forestry boards, and municipal districts may develop more detailed regional plans that are based on higher level planning activities***

***There can be too much public participation and the potential to burn out participants is real – it may be important to join forces in collective efforts between industry and government***

Using the framework in Section 6.0 as a guide, governments can continue to play an important role in gathering information and in defining issues and goals (the front end of the planning process). To facilitate this, specific tools such as general population surveys or deliberative opinion polls may feed into these data collection activities. New forms of public engagement, such as web-based tools, may also become more prominent. When information is needed from a large cross-section of the general public, it is likely more appropriate for government agencies or a public-private sector partnership to develop and collect this information on a periodic basis. Once the broad goals and issues have been identified through extensive consultation efforts, more specific planning processes may come into play. These planning activities will also involve public processes of a smaller and more intensive nature. Forest companies, community forestry boards, or municipal districts may employ activities such as public advisory committees, design charrettes, or community dinners to develop much more detailed regional plans that are based on higher level planning activities. There are a variety of scales and governmental processes into which a specific forestry participatory process or tool may fit, including provincial/territorial level policy, regional or strategic planning procedures, landscape level and operational plans.

It is important to note that there can be such a thing as too much public participation, and it is important to guard against “wearing out your welcome.” Some on-going processes like advisory boards require a fairly high commitment on the part of participants. The potential to burn out some participants is real. To remedy some of this potential for burn out, it may be important to join forces with other companies or government agencies to undertake various public involvement processes. For example, instead of several companies undertaking simultaneous surveys of the general public, a collective effort between industry and government may result in a more scientifically valid and cost-effective undertaking that also limits the amount of “respondent fatigue” within a single community.

#### **Key Messages**

- Despite public involvement requirements of certification, governments still have a vital role to play in sponsoring public involvement initiatives.
- Governments have a larger role to play in public involvement related to broad objective setting.
- Industry, community forest boards, and municipalities are more appropriate sponsors of public involvement related to operational decisions.
- Given that multiple public involvement activities may occur in the same region, it is important for sponsors to be aware of other programs and processes to guard against participant burnout.





## 10.0 Conclusion

This report attempts to provide answers to simple but often asked questions, such as:

- Why do we need to do public participation?
- When do we need to do it?
- How do we do it?
- What are the appropriate tools for specific objectives?

While there is growing demand for participatory initiatives in forest management and planning, there has been little formal training offered to forest management professionals that are responsible for implementing such initiatives. Forestry curricula are only now beginning to respond to this demand, and current accredited programs still have very limited content on this subject. This work attempts to provide some of the missing background, ideas and techniques. Practitioners will likely need to gather more information and experience before implementing the tools described if they were previously unfamiliar with them. The intent of this report is to suggest what is possible.

An important final consideration for this topic is the notion of sincerity and authenticity. It is possible to sponsor a public participation process that uses a suite of public participation tools in order to satisfy some bureaucratic requirement (market-based, such as certification, or legally-based, such as government license requirements). However, it is suggested that offering opportunities to provide input, without any real intention to follow through or without sincere attempts to accommodate concerns is a recipe for disaster. In many respects, previous insincere interactions with the public are the source of some apathy and cynicism amongst the general public, while also creating an appetite for new models of public engagement.

If recent history in forest management tells us anything, it is that the public will exert its legal and democratic rights to have Crown land managed according to its objectives. If the forestry community does not afford opportunities to be involved, the most organized, vocal and concerned segments of the public will attempt to have their values considered through other means. These means are often sought through the courts and global media.

Lawsuits, appeals, court injunctions and other legal tools are not generally thought of as public participation tools, but they most certainly are mechanisms for groups to express their values and achieve their goals with respect to forest management. In the United States, these mechanisms became so popular as a tactic of ENGOs that the development of forest policy and management frameworks in some regions have virtually ground to a halt. Legal action is not a very positive means for expressing forest values, but it can be effective for some groups. Many consider legal means as a mechanism of last resort (if they get no satisfaction from other

*There has been little formal training offered to forest management professionals in participatory initiatives – the intent of this report is to suggest what is possible*

*Offering opportunities to provide input without any real intention to follow through or without sincere attempts to accommodate concerns, is a recipe for disaster*

*The public will exert its legal and democratic rights to have crown land managed according to its objectives*

*Legal action is often considered a last resort but can be very effective – managers should consider public participation mechanisms as a means of avoiding legal challenges*

channels). Resource managers should consider all the other public participation mechanisms they use as a means to avoid legal challenges to their management strategies (Thomas 2002). This is the business case for the commitment of organizational resources for participatory process in forest management.

Forest managers and planners are encouraged to be vigilant and perceptive. In the past, non-participation has often been interpreted as indifference, apathy, or even tacit approval of foresters' plans and activities. Forest managers often complain that they provide opportunities to participate, but that the public does not take advantage of them. Rather than assuming apathy or approval, sponsors should consider the following:

- People may be uncomfortable expressing their views in a public forum (hence indirect tools may be appropriate).
- People may not have heard about the meeting or event.
- People may feel like they will not be listened to or that nothing will change.
- People may even feel they will be attacked for their views if they know they hold a minority view.

For these reasons and more, forest managers need to provide a range of opportunities for the public to express their views, opinions, desires and objectives for forest management. As well, they need to demonstrate a willingness to address those concerns through tangible, concrete actions. These may be actions in the forest, or actions in a meeting, workshop or focus group.

Good public participation initiatives create a place where criticism and respectful dissent are welcome. Furthermore, good public participation (in all its forms) provides information on forest values that forest managers can address. It is important to remember that in a democracy the intent is not to make conflict go away or to artificially manufacture consent. Rather, the goal is to manage conflict in an orderly manner. Diversity is a hallmark of Canadian society and with diversity comes a range of opinion regarding how to use publicly owned natural assets. In a democratic society those voices have a right to be heard. Furthermore, in order to implement adaptive management strategies, there is a need to continually and critically assess performance. Inviting the public to be a part of that reflection will only help forest managers do the job better.

***Managers should be vigilant and perceptive in relation to public participation***

***Managers need to provide a range of opportunities for the public to express their views, opinions, desires, and objectives for forest management***

***Good public participation initiatives create a place where criticism and respectful dissent are welcome – the goal is to manage conflict in an orderly manner***





## 11.0 References<sup>1</sup>

- Aberley, D. 1996. *Boundaries of Home: Mapping for Local Empowerment*. New Society Publishers, Gabriola Island, BC.
- Achiam, C. 2002. *Photo-surveys in Royston*. Unpublished Master's thesis. School of Community and Regional Planning, UBC, Vancouver.
- Al-Kodmany, K. 1999. Using visualisation techniques for enhancing public participation in planning and design: process, implementation, and evaluation. *Landscape and Urban Planning* 45:37-45.
- Apsey, M., D. Laishley, V. Nordin, and G. Paille. 2000. The perpetual forest: Using lessons from the past to sustain Canada's forests in the future. *The Forestry Chronicle* 76(1):29-53.
- Beckley, T.M. 1999b. *Public involvement in natural resource management in the Foothills Model Forest*. Unpublished report. Foothills Model Forest, Hinton, AB.
- Beckley, T.M., L. Just, P. Boxall, and A. Wellstead. 1999a. *Forest stakeholders attitudes and values: A review of selected social science contributions*. Northern Forestry Centre Information Report NOR-X-362. Canadian Forest Service, Edmonton, AB.
- Beckley, T.M. and D. Korber. 1996. *Clear cuts, conflict, & co-management: experiments in consensus forest management in northwest Saskatchewan*. Northern Forestry Centre Information Report NOR-X-349. Canadian Forest Service, Edmonton, AB.
- Beckley, T.M., R.C. Stedman, M. Ambard, and S. Wallace. 2002. New methods for understanding sense of place. In *Advances in Forest management: From Knowledge to Practice*, T.S. Veeman, P. Duinker, B. MacNab, A.G. Coyne, K. M. Veeman, G. Binsted, and D. Korber (editors). *Proceedings of the Sustainable Forest Management Network Conference, Sustainable Forest Management Network, Edmonton, Alberta*. Pp 267-273.**
- Behan, R. 1966. The myth of the omnipotent forester. *Journal of Forestry*. Pp 398-407.
- Beierle, T.C. and J. Cayford. 2002. *Democracy in Practice: Public Participation in Environmental Decisions*. RFF Press, Washington, DC. 160 p.
- Beierle, T.C. and J. Cayford. 2003. Dispute resolution as a method of public participation. In R. O'Leary and L.B. Bingham (eds.), *The promise and performance of environmental conflict resolution*. RFF Press, Washington, DC.
- Brown, K., E. Tompkins, and W.N. Adger. 2001. *Trade-off analysis for participatory coastal zone decision-making*. Overseas Development Group, University of East Anglia, Norwich, UK. 109 p.
- Brown, T.C., G.L. Peterson and B.E. Tonn. 1995. The values jury to aid natural resource decisions. *Land Economics*. 71(2):250-60.
- Canadian Council of Forest Ministers (CCFM). 2003. *Defining sustainable forest management in Canada: criteria and indicators*. Natural Resources Canada, Ottawa, ON.

<sup>1</sup> References in bold type are those funded by the Sustainable Forest Management Network.

- Canadian Standards Association (CSA). 2002. Sustainable Forest Management: Requirements and Guidance. CSA, Mississauga, ON. Available online at <http://www.csa-intl.org/onlinestore/GetCatalogItemDetails.asp?mat=00000-0000002415908>
- Carlson, KT. (editor) 2001. A Stó:lo-Coast Salish Historical Atlas. Vancouver, BC: Douglas & McIntyre.
- Carr, D.S. and K.E. Halvorsen. 2001. An evaluation of three democratic community-based approaches to citizen participation: surveys, conversations with community groups, and community dinners. *Society and Natural Resources* 14(2): 107-126.
- Chess, C. 2000. Evaluating environmental public participation: methodological questions. *Journal of Environmental Planning and Management* 43(6): 769-784.
- Condon, P.M., J. Proft, S. Muir and J. Teed. 2002. Sustainable Urban Landscapes: Site Design Manual for BC Communities. University of British Columbia James Taylor Chair in Landscape and Livable Environments.
- Cote, M-A. and L. Bouthillier. 2002. Assessing the effect of public involvement processes in forest management in Quebec. *Forest Policy and Economics*. 4(3):213-225.
- Dakin, S. 2001. More than meets the eye: Understanding sense of place for landscape management. Looking Beyond the Trees: Visual Stewardship of the Working Forest. In Visual Resource Management Conference Compendium, Kamloops, BC April 17-19, 2001. Pp. 13-17.
- De Marchi, B. and J.R. Ravetz. 2001. Participatory approaches to environmental policy, In Environmental Valuation in Europe, Policy Research Brief Number 10. Spash, C.L. and C. Carter (editors). Cambridge Research for the Environment. Cambridge, UK.
- Drushka, K. 2003. Canada's Forests: A History. McGill – Queen's University Press, Montreal, QC. 120 pp.
- Duinker, P. N. 1998. Public participation's promising progress: Advances in forest decision-making in Canada. *Commonwealth Forestry Review* 77(2):107-112.
- Fishkin, James S. 1991. Democracy and deliberation: New directions for democratic reform. Yale University Press, New Haven, USA.
- Floyd, D. W., R.H. Germain, and K. ter Horst. 1996. A model for assessing negotiations and mediation in forest resource conflicts. *Journal of Forestry* 94(5):29-33.
- Forest Practices Board. 2000. A review of the Forest Development Planning process in BC. <http://www.fpb.gov.bc.ca/special/reports/fdp/index.htm>.
- Forest Stewardship Council (FSC). 2005. Forest Stewardship Council Canada Working Group: National Boreal Standard. [http://www.fscCanada.org/pdf\\_document/BorealStandard\\_Aug04.pdf](http://www.fscCanada.org/pdf_document/BorealStandard_Aug04.pdf)
- Halvorsen, K.E. 2001. Assessing public participation techniques for comfort, convenience, satisfaction, and deliberation. *Environmental Management*, 28(2):179-186.





- Hamersley Chambers, F., and T. Beckley. 2003. Public involvement in sustainable boreal forest management. Chapter 4 *In Towards Sustainable Management of the Boreal Forest*. P.J. Burton, C. Messier, D.W. Smith, and W.L. Adamowicz (editors). NRC Research Press, Ottawa, Canada. Pp.113-154**
- Higgelke, P.E. and P.N. Duinker. 1993. Open Doors: Public participation in forest management in Canada. Report to the Canadian Pulp and Paper Association, and Forestry Canada. School of Forestry, Lakehead University, Thunder Bay, ON.
- Hislop, M. and M. Twery. 2001. A decision framework for public involvement in forest design planning. Final Report prepared for Policy and Practice Division of the Forestry Commission. Roslin, Scotland.
- Hislop, M., M. Twery, and H. Vihemaki. 2004. Involving people in forestry: A toolbox for public involvement in forest and woodland planning. Forestry Commission Edinburgh, Scotland.
- Homenuck, P., J. Durlak, and J. Morgenstern. 1977. Evaluation of public participation programs. *In Involvement and environment: proceedings of the Canadian conference of public participation, Volume 1: a review of issues and approaches*, B. Sadler (editor). The Environment Council of Alberta.
- Howlett, M. 1990. The round table experience: Representation and legitimacy in Canadian environmental policy-making. *Queen's Quarterly* 97(4):580-601.
- Joint FAO/ECE/ILO Committee on Forest Technology, Management, and Training (Joint FAO/ECE/ILO Committee). 2000. Public participation in forestry in Europe and North America. Report of the Team of Specialists on Participation in Forestry. Sectoral Activities Dept., International Labour Office, Geneva, Austria.
- Lauber, T.B. and B.A. Knuth. 1999. Measuring fairness in citizen participation: a case study of moose management. *Society and Natural Resources* 11:19-37.
- Lee, K.N. 1993. Compass and gyroscope: integrating science and politics for the environment. Washington, DC: Island Press.
- Lewis, J.L. 2000. Ancient values, new technology: Emerging methods for integrating cultural values in forest management. Unpublished MSc. Thesis. Faculty of Forestry, UBC, Vancouver, BC.**
- Martin, W.E., H. Wise Bender, and D.J. Shields. 2000. Stakeholder objectives for public lands: Rankings of forest management alternatives. *Journal of Environmental Management* 58:21-32.
- Mascarenhas, M. and R. Scarce. 2004. "The intention was good": Legitimacy, consensus-based decision-making, and the case of forest planning in British Columbia, Canada. *Society and Natural Resources* 17:17-38.
- Meitner, M.J., S.R.J. Sheppard, D. Cavens, R. Gandy, P. Picard, H. Harshaw, and D. Harrison. 2005. The multiple roles of environmental data visualization in evaluating alternative forest management strategies. *Computers and Electronics in Agriculture* 49:192-205.

- Mendoza, G.A., and P. Macoun, with R. Prabhu, D. Sukadri, H. Purnomo, and H. Hartanto. 1999. Guidelines for applying Multi-Criteria Analysis to the assessment of criteria and indicators. C&I Tool No. 9. The Criteria and Indicators Toolbox Series, Center for International Forestry Research (CIFOR), Jakarta, Indonesia.
- Morgan, D.L. and R.A. Krueger. 1998. The focus group kit. Volumes 1-6. Sage, Thousand Oaks, CA.
- Ordover, A.P. 1993. Alternatives to litigation: Mediation, arbitration, and the art of dispute resolution. National Institute for Trial Advocacy, Notre Dame.
- Parkins, J. 2002. Forest management and advisory groups in Alberta: An empirical critique of an emergent public sphere. *Canadian Journal of Sociology* 27(2):163-184.**
- Pearce, C., S.R.J. Sheppard, and N. Wilson. 2003. An approach to stakeholder analysis for Sustainable Forest Management Planning in British Columbia. Arrow IFPA Technical Report, Working Draft. Prepared for BC Forest Innovations Investment. CALP, UBC, Vancouver, BC.
- Proft, J. 2003. Design Charrette. Appendix C in Sheppard, S.R.J., C.M. Achiam, and D. Campbell, Review of public involvement processes for sustainable forest management. Technical Report prepared for Slokan Forest Products/BC Forest Investment Account.
- Rowe, G. and L.J. Frewer. 2000. Public participation methods: a framework for evaluation. *Science, Technology, and Human Values* 25(1):3-29.
- Sandberg, A. and P. Clancy. 1996. Property rights, small woodlot owners, and forest management in Nova Scotia. *Journal of Canadian Studies* 31(1):25-38.
- Sheppard, S.R.J. 2001. Guidance for crystal ball gazers: Developing a code of ethics for landscape visualization. *Landscape and Urban Planning* 54:183-199.
- Sheppard, S. and J. Lewis. 2002. Democratising the SFM Planning Process: The Potential of Landscape Visualization as a Community Tool for First Nations. In *Advances in Forest Management: From Knowledge to Practice*. T.S. Veeman, P.N. Duinker, B. MacNab, A.G. Coyne, K.M. Veeman, G. Binsted and D. Korber (editors). Proceedings of the Sustainable Forest Management Network Conference. Sustainable Forest Management Network, Edmonton, Alberta. Pg 304-309.**
- Sheppard, S.R.J. 2003. Knowing a socially sustainable forest when you see one: Implications for results-based forestry. *The Forestry Chronicle* 79(5): 865-875.
- Sheppard, S.R.J. 2005. Participatory decision support for sustainable forest management: A framework for planning with local communities at the landscape level. *Canadian Journal of Forest Research* 35(7): 1515-1526.
- Sheppard, S.R.J. and C.M. Achiam. 2004. Public participation in forest decision-making. In *Encyclopedia of Forest Sciences*. Academic Press/Elsevier, Oxford, UK. Pp. 1173-1182.





- Sheppard, S.R.J. and M.J. Meitner. 2003. Using multi-criteria analysis and visualization for sustainable forest management planning with stakeholder groups. *Forest Ecology and Management* 207(1-2):171-187.
- Sheppard, S.R.J., M. Meitner, N. Wilson, H. Harshaw and C. Pearce. 2004. Public processes in sustainable forest management, Arrow IFPA Sustainability Project Extension Note Series #3. UBC, Vancouver, BC.
- Sheppard, S.R.J. and J. Salter. 2004. The role of visualization in forest planning. *In* Encyclopedia of Forest Sciences. Academic Press/Elsevier, Oxford, UK. Pp. 486-498.
- Shindler, B. and Neburka, J. 1997. Public participation in forest planning: 8 attributes of success. *Journal of Forestry* 95(1):17-19.
- Shindler, B., T.M. Beckley, and C. Finley. 2003. Two Paths Toward Sustainable Forests: Public Values in Canada and the United States. Oregon State University Press, Corvallis, OR.
- Sinclair, A.J. and A.P. Diduck. 2001. Public involvement in EA in Canada: a transformative learning perspective. *Environmental Impact Assessment Review* 21:113-136.
- Smith, G.R. and J.R. Taylor. 2000. Achieving sustainability: exploring links between sustainability indicators and public involvement for rural communities. *Landscape Journal* 19(1-2):179-190.
- Stevenson, M. 2005. Traditional Knowledge and Sustainable Forest Management. Sustainable Forest Management Network, Edmonton, AB. 16 pp.**
- Thomas, J.W. 2002. Are there lessons for Canadian foresters lurking south of the border? *The Forestry Chronicle* 78(3):382-387.
- Tuler, S. and T. Webler. 1999. Voices from the forest: what participants expect of a public participation process. *Society and Natural Resources* 12:437-453.
- Tress, B. and G. Tress. 2002. Scenario visualisation for participatory landscape planning: a study from Denmark. *Landscape and Urban Planning* 982:1-18.





# SFM NETWORK PARTNERS AND AFFILIATES MARCH 2006

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- Networks of Centres of Excellence (NCE) Program
  - Natural Sciences and Engineering Research Council of Canada (NSERC)
  - Social Sciences and Humanities Research Council of Canada (SSHRC)

## SPECIAL FUNDING AGREEMENTS

- Sustainable Forest Management Network/BIOCAP  
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- Parks Canada
- Government of Alberta  
Sustainable Resource Development
- Government of British Columbia  
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- Government of Newfoundland and Labrador  
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### ABORIGINAL GROUPS

- Gwich'in Renewable Resource Board
- Heart Lake First Nation
- Kaska Tribal Council
- Little Red River/Tall Cree Nation
- Métis National Council
- Moose Cree First Nation

## NON-GOVERNMENTAL ORGANIZATIONS (NGOs)

- Ducks Unlimited Canada

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- Canadian Institute of Forestry
- Forest Ecosystem Science Cooperative
- Forest Engineering Research Institute of Canada
- Lake Abitibi Model Forest
- Manitoba Model Forest
- National Aboriginal Forestry Association





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