

Enabling Environmental Justice: Assessment of Participatory Tools

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Environmental Department
United Nations Institute for Training and Research

Prepared by:
Manjula Amerasinghe
Leanne Farrell
SheeShee Jin
Nah-yoon Shin
Kristen Stelljes

Department of Urban Studies and Planning
Massachusetts Institute of Technology

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Executive Summary

A growing body of literature points to the importance of public participation in enabling procedural justice in public decision making. Procedural justice, in turn, is a prerequisite for distributive justice, which in environmental decision-making contexts, is the underlying tenet of environmental justice. Without the meaningful inclusion of those who will be impacted by the outcomes of environmental decision-making, fair distribution of environmental benefits and harms is unlikely to result.

This report sets out to test the extent to which various participatory tools have the potential to enable procedural justice in the environmental arena. The report synthesizes the findings of 59 case studies applying seven different participatory tools to environmental decision-making contexts in developed and developing countries. Tools analyzed are: notice and comment, public hearings, focus groups, participatory workshops, citizen advisory committees, citizen juries and referenda.

Findings show that different participatory techniques *can*, indeed, play an important role in improving decision making and enabling procedural justice, a fundamental component of environmental justice. Of the tools analyzed, participatory workshops have the greatest potential to be inclusive, interactive and empowering to participants. Yet, even for this tool and others that demonstrate high potential along these dimensions, several key capacity requirements must be first fulfilled. Participatory tools in general were found to be time consuming, financial and human resource intensive, and requiring of specialized skills and knowledge from their sponsors. Furthermore, the adequate inclusion of marginalized groups – a fundamental component of procedural justice – requires special attention on the part of governments to make sure participatory processes serve to level the playing field among stakeholders rather than perpetuating imbalances in access to power.

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I. Introduction

1. Public Participation in Environmental Decision-Making

A wide variety of tools and processes have been developed to facilitate the interaction of citizens and government agencies during decision-making processes. These tools enable different levels of interaction between state and non-state actors which leads to varying degrees of environmental justice. The literature provides several scales to evaluate the degrees of interaction and empowerment that are achieved through participation. The first of these scales is Sherry Arnstein's (1969) ladder of citizen participation, which sorts different levels of citizen engagement from manipulation to citizen control.¹ Arnstein's ladder provides a language with which to discuss the amount of power that is given to citizens through participatory processes. Her ladder also called attention to the fact that some processes are participatory only in name, as the citizens involved have no ability to influence the outcome of the decision-making process. Mostert (2003) provides another scale that begins with information supply (which is not considered to be genuine participation), gradually increasing in citizen involvement levels through consultation, discussion, co-designing, co-decision making, and lastly full decision making by the public. As with the Arnstein ladder, Mostert ranks participatory processes based on the amount of decision-making power that is given to the public. It acknowledges that, while information supply is necessary to meaningful participation, it is not truly participation in and of itself.

Principles and features of participation

Fung and Wright (2003) provide guidance on principles for public participation, which they refer to in its highest form as 'empowered participatory governance,' and suggest institutional design features that are key to achieving this level (see Box 1). These lists should not be considered exhaustive, though they are all helpful in thinking through necessary elements for a successful process. When embarking on a public participation process, it is important to begin with the end in mind to ensure the steps along the way will (i) enable key stakeholders to participate, and (ii) enable an outcome that clearly incorporates the input received. Special attention needs to be given to traditionally marginalized groups to ensure they are able to participate in a meaningful way. Lastly, in the environmental context, even if these objectives are achieved and decision making *processes* are found to be just and equitable, it is important to note that this may or may not necessarily lead to just *outcomes* on the ground, in terms of the distribution of environmental costs and benefits of a given policy, planning or development decision.

¹ Arnstein (1969)'s 'rungs' on the ladder of citizen participation: 1. Manipulation; 2. Therapy, 3. Informing, 4. Consultation, 5. Placation, 6. Partnership, 7. Delegated power; 8. Citizen control.

Box 1: Considerations in Public Participation (Fung and Wright 2003)

Principles of empowered participatory governance:

1. Focus on specific, tangible problems
2. Involvement of ordinary people affected by these problems and officials close to them
3. Deliberative development of solutions to these problems (15)

Institutional design features:

1. The devolution of public decision authority to empowered local units
2. The creation of formal linkages of responsibility, resource distribution, and communication that connect these units to each other and to super-ordinate, centralized authorities
3. The use and generation of new state institutions to support and guide these decentralized problem-solving efforts (15-16)

The benefits of public participation

Scholars and practitioners alike agree that participation can be beneficial in decision-making processes. Participation can improve the quality and legitimacy of decision-making processes and can build the capacity of participants to engage in the policy process (Dietz and Stern 2008). It can also lead to more just decisions (Baiocchi 2003, Meadowcroft 2004, Fung 2006) and possibly redistribution of resources (Baiocchi 2003). Other benefits include greater acceptance of decisions, transparency in government, increased democracy, as well as environmentally and economically sustainable management and social learning (Mostert 2003).

When those who will be most affected by a decision are brought together through a participatory process, the quality of the final decision is often higher than if the decision was not made in a participatory way. Participatory processes bring people together who have intimate knowledge of the situations involved and who may know best how to improve them (Fung and Wright 2003, Earle 2005). Thus, deliberative processes are more likely to result in superior decisional outcomes than could have been achieved had this knowledge not been included (Fung and Wright 2003). Public participation can also assist in establishing a fair balance of acceptable tradeoffs. This balance can be between extremes of caution (Dietz and Stern 2008) as well as extremes of risk and its distribution.

Another benefit often attributed to public participation is increased efficacy and efficiency of implementation. If participants feel they were part of a fair process and their voices are reflected in the final outcome, they will have increased commitment to support and implement the decisions that are made (Fung and Wright 2003, Earle 2006). In addition, direct participation of grassroots operators increases accountability and reduces the length of the chain of agency that accompanies political parties and their bureaucratic apparatus (Fung and Wright 2003). Furthermore, if those who will be impacted by a

decision are involved, they may be able to identify potential pitfalls and possibly identify solutions, resulting in saved time, energy and resources. If participants have a sense of ownership over the process, they can also be tapped to participate in the implementation and monitoring of decisions, thus helping to stretch often scarce governmental resources (Earle 2006).

Participation is also a fundamental tenet of democratic principles. As Fung and Wright (2003, 3) note,

The central ideals of democratic politics [are]: facilitating active political involvement of the citizenry, forging political consensus through dialogue, devising and implementing public policies that ground a productive economy and healthy society, and, in more radical egalitarian versions of the democratic ideal, assuring that all citizens benefit from the nation's wealth.

Participation will bring the most benefit when the process is seen as fair. Processes are seen as more fair if those who are affected have an opportunity to participate in a meaningful way and their opinions are taken seriously (Dietz and Stern 2008). The purpose of participatory tools at the consultative levels and above is to provide citizens with the means to affect decisional outcomes through deliberative processes. If the process is able to achieve this purpose, it should lead to results that are more equitable than those that are driven by politics and power (Fung and Wright 2003). The opportunity for greater justice can be even higher if traditionally marginalized groups are able to participate as equals in the process (Fung and Wright 2006). As the normative scales of participation suggest, the primary goal of public participation for many advocates is to increase equity by involving those who will be most impacted by decisions and those who are not typically involved so they can direct outcomes to meet their needs (Arnstein 1969, Mostert 2003, Dietz and Stern 2008).

Finally, participation strengthens relationships among individuals and builds capacity of the groups who participate. Participation is a form of specialized training that can atrophy if not used (Fung and Wright 2003). Participation also helps citizens come to understand their interests in the first place and how those interests relate to and depend on those of other citizens (Dietz and Stern 2008). This deeper understanding of the interests of others can lead to groups and individuals who have traditionally been in competition to come to a mutual understanding, which in turn can lead to cooperation (Fung and Wright 2003).

From the perspective of government, in the context of improving environmental governance, participation certainly makes sense. The idea of "governance" has been defined as the process in which decisions are made and executed through negotiation, deliberation and cooperation about rules and institutions that affect the way political principles of openness, participation, accountability, effectiveness, and coherence are exercised in dealing with problems (Donahue 2002, Schmitter 2001, EU 2001). It is an ambiguous but increasingly popular term used to describe a continuum with societal autonomy on one side and state intervention on the other (Treib, et al. 2005). Leaders in government face a perpetual dilemma: citizens expect them to find solutions to society's major problems, but at the same time, they continue to distrust politics and political

institutions. With decreasing understanding and interest in the complexities of government, people can lose confidence in the system that is viewed as both too removed and too intrusive at the same time (EU 2001).

In the environmental arena, increasing globalization and changes in global politics, economy and environmental circumstances have demanded new approaches to governance. Developing countries are experiencing large increases in awareness and concern with regard to environmental issues, but are often constrained by lack of resources in addressing these concerns (Speth 2003). Traditional command-and-control prescriptive governance techniques may have led to some positive outcomes in terms of improved air and water quality and decreased toxic waste release in developed countries such as the United States (Sonnenfeld and Mol 2002, Bulkeley and Mol 2003); however, this system’s applicability to the developing world is challenged by the need for high government capacity. Critics also argue that it is too bureaucratic, prescriptive, fragmented, and naturally adversarial (Durant, et al. 2004). Participation can be an invaluable way of addressing these concerns by outsourcing capacity.

Box 2: Summary of Benefits of Public Participation	
<ul style="list-style-type: none"> •Improved quality of decisions •More ownership of decisions, leading to more effective implementation •Increased fairness and equity •Increased legitimacy 	<ul style="list-style-type: none"> •More democratic •Builds capacity of those who participate •Early identification of potential pitfalls

Limitations of participation

Though there are many benefits to public participation, bringing together people with disparate views and experiences to make decisions is a challenging process. The potential of a participatory process to improve outcomes as described above depends on how and when participation occurs, by whom, and towards what ends. Anyone who has undertaken a participatory process can speak to its benefits, but they will also be able to speak to the challenges. The 2002 United States Forest Service report *The Process Predicament: How Statutory, Regulatory, and Administrative Factors Affect National Forest Management* identified several potential pitfalls in public participation: excessive analysis, ineffective public involvement, and management inefficiencies (Dietz and Stern 2008).

The participants themselves need to be able to contribute in meaningful ways for the process to be effective. The response from public participation, regardless of the tool used, is often limited, of low quality, and unrepresentative (Dietz and Stern 2008). Groups that have been traditionally marginalized often have inadequacies of political, socioeconomic infrastructure and knowledge base plus difficulties of organizing a group in the face of futility, alienation and distrust (Arnstein 1969). Deliberative processes may be bringing together groups who have been in competition with each other or who have

long standing differences. If these differences cannot be overcome, it can result in balkanization within the process (Arnstein 1969, Fung 2006, Dietz and Stern 2008).

Box 3: Summary of Challenges of Public Participation	
<ul style="list-style-type: none"> •Ineffective public involvement •Limitations placed on the process inhibit participation •Lack of capacity to effectively manage participation process •Unsustainable over time 	<ul style="list-style-type: none"> •Powerful groups dominate process •Participants may be unable to overcome differences and come to a common understanding •Final outcomes can be less predictable, and not necessarily better for environmental outcomes

Public participation processes require inputs of staff time and financial resources in order to be successful. If the capacity is not there to effectively manage the process, engage participants or follow through on commitments, the quality of the outcome will be greatly reduced. Participatory tools require varying degrees of inputs, so government agencies need to think critically about what options are possible that can both be sustained over time and lead to the desired outcome.

Considerations Necessary in Public Participation

As Arnstein’s and Mostert’s scales suggest, tools available for public participation result in varying degrees of deliberation between participants themselves and between participants and state officials. When selecting tools for public participation, it is important to consider the type of information needed from participants and the tool that will most effectively lead to this information. More deliberative processes have an additional benefit of forming personal connections between participants and between participants and the issues at hand. These outcomes may be valuable enough that they lead to the use of more interactive forms of participation.

In order for public participation to result in the desired benefits, government agencies coordinating the process must be willing to listen to the public and incorporate feedback from the process into the final decision. For processes to be seen as fair, there must be clarity from the beginning as to how decisions will be linked with action. Participants want to know that their opinions matter to those who can make the final decisions and that their participation will make a difference. If the final outcome does not reflect the input received from the public, the legitimacy of the process will be questioned and it will be more difficult to encourage active participation in the future. The public must also be involved while there is still an opportunity to impact the final outcome in order for the process to be truly participatory and not solely information dissemination. Governments often do not follow these recommendations, and groups in power may also be able to manipulate the outcome of the process, resulting in a process that is low on the scale of participation (Dietz and Stern 2008).

Resource and capacity requirements must be considered when choosing a tool for public participation. The ability of a government to coordinate and fund a participatory process and for the participants to contribute meaningfully during participatory processes will impact the outcomes achieved. The assessment of participatory tools featured in this report discusses the requirements under five categories:

1. **Time**- amount of time required to prepare for and effectively implement the participatory process;
2. **Human resources**- amount of staffing required to prepare for and effectively implement the participatory process;
3. **Funding**- amount of funding required to support the participatory process;
4. **Knowledge**- amount of understanding, expertise and skills that coordinators and implementers of the participation process need to have to effectively implement the participatory process and provide relevant information to the participants; and
5. **Education**- degree of knowledge and skills (such as literacy) that the participants themselves must have *beforehand* in order to participate meaningfully in the participatory process.

Deliberative processes require varying levels of capacity from the coordinating agency as well as the participants themselves. Given the reality in which governments work, considerations of time, resource and capacity requirements are necessary before selecting a tool for public participation. If a tool does not match the resources available and capacity of the coordinating agency, key stakeholders may not be able to participate through lack of access to the process or lack of information. Agencies may also lack the staffing and financial capacities to be able to sustain participatory processes over long periods of time. Many deliberative tools require significant amounts of time to implement and experienced facilitators. It is also costly and time intensive to conduct education and outreach efforts that ensure that all stakeholders will be able to participate as equals. Those who will have to forego wages or bear transportation or child care costs in order to participate will be more limited by the length of time required to participate and the distance needed to travel than others without these constraints.

Given the diversity of stakeholders in environmental decisions, the appropriate means of communication needs to be selected in order to reach key participants and enable the inclusion of traditionally marginalized groups. The amount of outreach and education done in conjunction with the participatory process will empower different levels of participation. The availability of information in adequate form and language for diverse stakeholder groups (often including people with disabilities or illiterate populations) is necessary to provide opportunities for marginalized groups to learn about the process and gain information required to fully participate. The tools that are used will also enable differing degrees of participation.

When considering who participates, one needs to identify the different types of ‘publics’ that can be invited. These include stakeholders – i.e., those who will either be affected by, or who have the ability to affect, an outcome – as well as the general public (Dietz and Stern 2008). In principle, participatory processes should seek to involve as many people as possible; however, this is not always feasible due to time, budget, and geographic

constraints, nor is it always the most useful/productive in terms of environmental equity and justice.

Inclusion of Public Participation in International Environmental Decision-Making

The importance of public participation to sustainable development has been recognized in international declarations as well as in the work of institutions from the international to local levels. So strong is the recognition of the benefits of participation, that it has become a common legal requirement in various country contexts and has been accepted as a best practice in environmental decision-making. The 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil cemented the importance of participation for sustainable development. The Rio Declaration on Environment and Development made clear that sustainability can only be achieved through new dimensions of cooperation among the nations and peoples of our planet and, most of all, a new basis for relationships between rich and poor, both within and among nations (Strong 2003). As of 2005, 178 governments have adopted the Rio Declaration (UNDP 2005).

In order to bring this international agreement down to the local level, communities were asked to develop Local Agenda 21 plans. Agenda 21 was created as the accompanying plan to lay out the path for achieving sustainable development in line with the Rio Declaration. Local authorities were tasked with developing their own action plans through participatory processes to specify how they were going to work towards sustainable development. Agenda 21 holds public participation as a fundamental prerequisite for sustainable development (Meadowcroft 2004). By December 2001, 6,416 local authorities in 113 countries had either made a formal commitment to Local Agenda 21 or were actively undertaking the process (ICLEI 2000).

Box 4: Principle 10, Rio Declaration on Environment and Development

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided (UNEP 2008).

Principle 10 of the Rio Declaration (Box 4) stated the vision for public participation in environmental and developmental decision-making processes. The three pillars of Principle 10 are: public access to information, public participation in government decision making and access to justice or redress and remedy, which collectively can be called ‘access rights’ (Foti, et al. 2008). The importance of these pillars is emphasized in the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, also known as the Aarhus Convention (Box 5). The convention was adopted by members of the United Nations Economic

Commission for Europe (UNECE) in 1998 during the Fourth Ministerial Conference in the ‘Environment for Europe’ process in Aarhus, Denmark (UNECE 2008). As of October 2008, there were 42 parties to the convention. The articles of the convention stipulate requirements for providing access rights according to the Principle 10 pillars. These requirements were adopted in two Directives of the European Union in 2003, making compliance a legal requirement for member countries (European Commission 2008).

Box 5: Purpose, Aarhus Convention

In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention (UNECE 2008).

2. Environmental Justice via Public Participation

Involving the public in decision-making processes – while widely recognized as beneficial – nonetheless presents many challenges, has specific capacity requirements, and does not automatically lead to improved procedural and distributional justice for marginalized populations. These challenges and requirements for effective participation in turn depend on the goal of the process and the deliberative tool used. The remainder of this report discusses how participation is necessary to achieve environmental justice, what tools have been used for environmental decision-making, and how effective they have been at promoting inclusion, high levels of interaction and empowerment.

Increasing concern about the health impacts of environmental contamination and degradation has led to the creation of various policies at local, national and international levels that address the connection between human health and the environment. However, these policies have not always adequately considered distributional differences in negative health impacts, with some groups and locations bearing a disproportionate amount of environmental harms. Environmental justice seeks to address these disproportionate burdens to ensure that all have access to a healthy environment.

Environmental justice, simply defined, is a fair distribution of environmental benefits and burdens, and a fair involvement within decision-making, regardless of race, income, or nationality (U.S. EPA). However, achieving environmental justice in practice is difficult, due to many competing interests. Challenging questions must be answered, such as: Who should gain environmental benefits and who should bear the burdens? Are the current distributions of benefits and burdens just? What are the responses of negatively affected people to the distribution? How can we determine what is a “just” environmental policy? These challenges cannot be overcome without public involvement in discussing what a fair distribution of environmental impact would be.

Environmental justice was first developed as a concept in the United States, where it has been used to advocate for addressing unequally distributed environmental burdens and health risks for marginalized groups such as low-income communities or ethnic minorities. An early example of such advocacy occurred in the low-income working community of Love Canal, New York in 1978, when community members discovered that over twenty thousand tons of toxic waste was buried beneath their neighborhood, causing serious health problems (Gibbs 2002). A grassroots movement of local residents was able to successfully win the relocation of working-class families and brought the issue of environmental justice to the attention of the nation.

Following Love Canal, a similar case took place in 1982 in Warren County, North Carolina. The residents discovered that harmful chemical industrial facilities and toxic waste landfill sites had been located intentionally in the residential areas of an African American community. This community enjoyed neither equal distribution of pollutants nor equal voice in the decision about where to place the PCBs. Following the Warren County discovery, toxic waste dumps, landfills, incinerators, and polluting industries were found to be disproportionately located in communities with a high density of poor and minorities (Bullard 1994).

As seen in the examples above, environmental justice has evolved along with three important issues in environmental decision-making: *environmental health risk*, *human rights*, and *public participation*. First, special attention was paid to heavy environmental pollution which may cause serious health problems including cancer, asthma or other respiratory problems, lead poisoning, leukemia and many other diseases. The call for attention to the health risks of pollution has helped develop precautionary environmental policies. Second, the human right to live in a clean, decent environment became increasingly recognized. Finally, critics have drawn linkages between the lack of political power and capacity among low-income communities and minorities, and these groups' exclusion from decisions that impact their health, calling for increased participation for marginalized groups in such decision making processes.

Box 6: Definition of Environmental Justice

Environmental Justice is fair treatment and meaningful involvement of all people regardless of race, color, national origin, educational level, or income with respect to the development, implementation, and enforcement of environmental laws. Environmental justice seeks to ensure that minority and low-income communities have access to public information relating to human health and environmental planning regulations and enforcement. It ensures that no population, especially the elderly and children, are forced to shoulder a disproportionate burden of the negative human health and environmental impacts of pollution or other environmental hazard (U.S. EPA Department of Environmental Justice).

Principles of Environmental Justice: Distributive and Procedural Justice

Rawls suggests two fundamental principles of justice. The first is that each individual should have equal rights and demand as much freedom as possible. The second is that social and economic benefits and burdens should be distributed equally (Des Jardins 2006). The first of these principles is integral to procedural justice, or the ability of those

affected to be able to meaningfully participate in the decision-making process in order to achieve fair outcomes. The second of these principles is the same as the idea of distributive justice, which focuses on how environmental harms and benefits are allocated within locations and groups. A more detailed discussion of each concept follows.

Distributive justice

One foundational theory for environmental justice is the idea of “justice as distribution.” In this line of thinking, justice is defined as a standard or a set of rules for equal distribution of social goods (Schlosberg 2003). In the environmental context, distributive justice is a means to achieve equity in terms of the allocation of environmental risks and harms. Historically, socioeconomic factors, which are strongly correlated with race and ethnicity in many countries, have had a strong impact on the way in which environmental harms are distributed in society. Environmental justice advocates have also argued that poverty is closely correlated with the environmental damage in a community (Schlosberg 2003). Distributive justice has also been interpreted to relate to access to – and control over – natural resources. For example, indigenous communities have long fought to gain recognition of land rights in order to assure access to the resources which provide the basis of their livelihoods and cultures. Threats to the integrity of those resources are considered threats to their basic human right to survival.

It is often very difficult to achieve distributive justice, especially in the environmental decision-making arena, because the bundle of individual rights, such as health and property rights, as well as limitation of time and financial resources, come into play as key factors in decision-making processes. For instance, imagine that the national governing body is looking for a place to dump toxic waste. It is likely that the decision maker will select the location where land values are low, due to limited financial resources. However, low land values are often found in areas where marginalized groups live, which has resulted in other polluting industries also locating in these areas. Decision makers may face several political and ethical challenges: is it fair to locate another toxic waste dump site in an already burdened community? Should another place be designated even though it would be more expensive to do so? Is it also just to locate the toxic waste in another place? Who should bear the environmental burdens in order to achieve equal distribution of benefits and burdens? What are the environmental benefits and burdens to different people involved in the decision-making? Until a time when there are no more threats to health from human activities, these are questions that need to be answered. Such difficulties in policy making imply that distributive justice in the allocation of environmental impacts may not, in fact, be sufficient for promoting environmental justice.

Procedural justice

Unjust distribution of environmental costs and benefits often occurs as a result of the exclusion of those who will be most negatively affected from a decision-making process. Challenges in promoting environmental justice are also caused by the lack of institutional frameworks which include the voices of marginalized groups. For example, the residents of Love Canal and Warren County had no say in, or knowledge of, the decisions that

were made to dump toxic chemicals in their communities. If key stakeholders are not represented at the table, it is easier to come to a final decision that results in unequal distribution of both environmental and economic harms and benefits. As the literature shows, distributional injustice is often wrought upon low-income groups and racial/ethnic minority groups. It is these same groups that are often excluded from environmental decision-making processes, either as a result of outright exclusion or because of a lack of capacity to participate in the process.

Theories of procedural justice provide a second foundation of environmental justice. Procedural justice is deeply associated with understanding justice in terms of historical and cultural contexts of a location, including both recognition and ability to participate as equals. Some of the relevant theorists argue that injustice is not solely based on inequitable distribution; rather, injustices are often based on a lack of recognition. Thus, it is important that individuals or communities are “politically” recognized, taking into account their own histories, identities and cultures. This political recognition offers a basis from which groups can find ways to empower themselves, because recognition provides individuals and communities with the political right to participate in policy making.

The aim to achieve environmental justice by way of procedural justice will help find meaningful solutions for both policy makers and the public. First, procedural justice emphasizes finding political solutions through public participation that recognizes key stakeholders as unique groups, each with a particular set of interests and needs. In this way, decision makers will be able to gain political legitimacy and trust from the public through their efforts to promote public participation. Procedural justice also seeks opportunities for individuals to exercise their environmental rights as citizens, based on recognition for one’s self, for one’s own community, and for the movement as a whole (Schlosberg 2003). Thus, environmental justice, in terms of procedural justice, demands that people have the right to participate as equals in all environmental decision making processes that may affect their lives, children, homes and jobs. It also enables them to demand ways to access relevant information and to be given opportunities to express their concerns in relation to environmental burdens and benefits.

Significance of Environmental Justice

Implementation of democratic environmental science

With an aim to achieve procedural justice in environmental decision-making, environmental justice has been a key facilitator of “democratic science” (Pellow 2005).² Specifically, environmental justice groups, together with experts from environmental, science, public health, risk management and other related fields, have developed a community-based research strategy known as popular epidemiology (Brown 1992, Pellow 2005, Corburn 2005). Through the “democratizing” of science, communities and

² “Democratic Science” is a science “that is cognitively accessible and politically accountable to nonprofessional publics” (Pellow, 2005; Brown, 1998).

environmental justice activists have “co-produced” in-depth knowledge on unequal distribution of environmental hazards and their adverse health risks. This process emphasizes the importance of considering local contexts and perspectives in environmental decision-making. Furthermore, environmental justice has been at the forefront of advocacy for the adoption of the Precautionary Principle – which advocates for erring on the side of caution in the face of scientific uncertainty about the full environmental and health ramifications of a given decision – as a governing framework. Communities have used this as a theoretical foundation from which to argue for the cleanup of harmful chemicals and a “not in my backyard” (NIMBY) approach to the siting of new industrial facilities in or near residential areas.

Establishment of legal frameworks at national and international levels

Since the 1980s, when the environmental justice movement started to grow in the United States, it has had a significant role in gaining national attention and building legal frameworks to appropriately address the unequal distribution of environmental burdens, such as community right-to-know laws and executive orders specifically acknowledging the term “environmental justice.” It also furthered the spread of direct citizen involvement in traditional environmental policy making processes, which began with public participation in Environmental Impact Assessment (EIA)³ processes.

Apart from significant achievements at the national policy level in the United States, it has also raised concerns about unfairness in environmental decision-making processes in other parts of the world. Specifically, the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, also known as the Aarhus Convention, was adopted by members of the United Nations Economic Commission for Europe (UNECE) in 1998 (UNECE 2008) as described in the previous section.

International Diffusion of Environmental Justice Movement

As implied in Aarhus Convention, the environmental justice movement has since spread to the rest of the world. In developing countries, the conversation often centers around the disproportionate vulnerability of the poor to environmental burdens, ranging from industrial toxins and air/water pollution, to degradation and depletion of vital natural resources, to extreme weather conditions exacerbated by climate change. As developing countries become increasingly urbanized, low-income groups in particular face challenges as a result of inadequate provision of infrastructure and services, lack of the rule of law, discrimination, and lack of political influence (Satterthwaite 2003). Satterthwaite (2003) further argues that the high incidence of diseases caused by contaminated food and water in most poor urban communities is an environmental problem. Poverty is a risk factor not only for exposure to environmental hazards but also

³ EIA is a process through which a report detailing the possible environmental impacts of a given project is created and the public is given the opportunity to comment on the report.

for lack of rapid and effective healthcare, because of the lack of services in informal settlements, tenement districts, or other areas where low-income groups are concentrated.

As in the United States, poor and minority groups in developing countries face both procedural and distributive injustices in relation to the environment, due in part to their lack of meaningful participation in decision-making processes. In developing countries, additional barriers to public participation stem from a lack of capacity in both institutions and individuals, as discussed in the participation section of this report.

In order to overcome these barriers, there is no longer a question that public participation must be utilized to achieve justice in environmental decision-making. The question now is how to promote more meaningful and inclusive interaction among these stakeholders. The achievement of both distributive and procedural justice is dependent upon the active participation of marginalized groups. It is also dependent upon government actors that are willing to include the input of these groups into their final decisions.

Despite the desirable objectives of environmental justice, however, it is not an easy task to achieve active public participation and procedural justice in environmental decision-making. Thus, it is important to put forth constant effort to develop both effective and deliberative public participation tools which will enable meaningful environmental justice. In later sections, we will investigate various practical public participation techniques which may help enhance environmental decision-making in terms of distributive and procedural justice.

These participatory techniques will be evaluated based on the outputs they produce related to environmental justice. Fung (2006) suggests that there are three additional considerations to be made when evaluating public participation:

1. Who participates?
2. How do players communicate?
3. How are discussions linked with action?

For the purposes of assessing the effectiveness of the techniques assessed in this report, Fung's criteria have been adapted into three corresponding categories of participatory outputs, defined as follows:

1. **Inclusion**- access by all relevant stakeholders, including marginalized groups, to the decision-making process;
2. **Interaction**- the degree to which the decision-making process is deliberative among participants; and
3. **Empowerment**- the degree to which participants can influence the final decision, knowledge and capacity are transferred to participants, and there are ongoing opportunities for engagement and influence.

3. Purpose of Report

This report was prepared for the Environmental Governance Programme at the United Nations Institute of Training and Research (UNITAR) as a background paper on the use of public participation in environmental decision-making. The paper will inform development of a pilot tool kit to strengthen capacity for participatory environmental governance in developing countries in order to facilitate effective environment problem solving. To this effect, this paper aims to evaluate the experience to date with actually achieving the linkages described in the literature between stakeholder participation and environmental justice. Through secondary analysis of case studies, we look at the use of different types of participatory techniques in environmental decision making contexts to draw conclusions on their capacity requirements as well as potential equity and justice benefits, as perceived by affected stakeholders.

To achieve this objective, the report first takes stock of the types of participatory techniques that are most frequently used across a variety of environmental sectors in decision processes for national and sub-national policy-making and planning, as well as project-specific siting and design. Due to UNITAR's primary interest in national and subnational environmental policy-making processes, the majority of case studies analyzed were at this level. To ensure broad analysis of participatory contexts in which each selected tool is utilized, the research team also included case studies focused on participation in decision-making related to the planning phase of site specific activities, such as through the Environmental Impact Assessment (EIA) process.

The report then draws empirical conclusions in two main areas: (i) the required "inputs" to successfully use various participatory techniques in different environmental decision-making contexts, and (ii) the extent to which the use of different participatory techniques can be linked to higher procedural equity and justice outputs for marginalized groups.

4. Methodology and Limitations

Identification and contextualization of participatory "tools"

The team first reviewed lists of participatory tools currently in use to understand the universe of options for public participation. The team then selected several public participation techniques, or tools, from the expansive universe of techniques variably referred to in the literature on participation in policy-making processes.

The first cutoff for inclusion was that tools must rank as at least consultation techniques. Information sharing techniques, while included on the International Association of Public Participation (IAP2)'s Spectrum of Public Participation (2007), were agreed to not constitute participation per se, but rather precursors to a participatory process. Techniques suited only to implementation, monitoring and evaluation phases (such as negotiated dispute resolution techniques, or participatory monitoring and evaluation)

were also eliminated, given UNITAR's focus only on "front-end" decision-making processes (e.g., policy enactment or planning/siting/design phases of programs or projects).

Drawing from the remaining universe of participation and public engagement tools detailed in IAP2's Public Participation Toolbox (2000) and Slocum (2003)'s Participatory Methods Toolkit, the selection of tools was made based on the availability of secondary case studies demonstrating their actual use in environmental decision making in developing country contexts. Initial case study searches revealed some degree of "looseness" and interchangeability in terminology with respect to actual methodologies being employed. For example, various context-specific methodologies such as participatory rural appraisal, role playing, and visual mapping were also referred to as sub-techniques within the context of a participatory workshop. In cases such as this, the more generic tool term – e.g., participatory workshop – was selected.

All told, seven tool categories – notice and comment, public hearings, participatory workshops, citizen advisory committees, focus groups, referenda and citizen juries – were deemed sufficiently distinct as well as commonly enough cited to warrant meaningful discussion and analysis of their use in developing country contexts.

Identification of case studies

The team identified case studies of participatory techniques being used in environmental policy making, planning and project-specific environmental assessment contexts around the world through Internet-based empirical research. Searches were made using Google Scholar, Google (general), AnthroSource, and ProQuest. Search queries used standardized keyword formulas,⁴ followed by more targeted follow-up web and journal searches (using the same four sources) when specific case studies surfaced but initial sources lacked sufficient detail to paint a full picture of the case study and its participatory outcomes.

Analysis of case studies

Information on identified case studies was entered into a standardized spreadsheet. Once categorized by country, sector, type of decision-making task, relevant stakeholders, and diversity of participation, various "input" and "output" dimensions were then analyzed. Specifically with respect to, (i) the time duration of the participatory process, (ii) funding and human resource needs, and (iii) education and skills requirements of participants and event organizers. Process-related outputs were then evaluated along the dimensions of (a) inclusion, (b) interaction, and (c) empowerment of stakeholder groups (both overall as

⁴ Search queries consisted of variations on the keyword formula as follows: *public/stakeholder participation/engagement* (combinations of these words) AND [*sector name*] *policy* AND (optional)[*region, ex/ Asia, or country, ex/ Indonesia*]. An example resulting formula would be: "*stakeholder participation climate change policy Africa*".

well as for marginalized groups in particular) generated through implementation of the participatory process.

Due to the case studies' focus on policy or project planning phases rather than implementation and evaluation phases, systematic conclusions about *distributive* justice outcomes could not be drawn. The environmental sustainability of outcomes reached using the tools was furthermore beyond the scope of analysis, given information limitations. The score for marginalized groups along the chosen metrics – inclusiveness, interaction, and empowerment – was nonetheless deemed to be reasonably indicative for foreseeing distributive outcomes. The analysis of each tool thus explores whether and how its use could amplify the voice of marginalized groups vis-à-vis traditionally empowered groups *through* the participatory process. Case study experience in this regard is also highlighted where encountered.

Limitations to the methodology

Several methodological constraints limit the ability to draw definitive, comprehensive conclusions about the use or effectiveness of the various participatory tools in all contexts of environmental decision-making. The report thus aims only to highlight general trends based on the case studies encountered and the theoretical literature.

While systematic search processes aimed to make the search methodology as consistent as possible, the case studies encountered should not be considered necessarily representative of all experience to date with incorporating participation into environmental decision-making. Given that a Google keyword search generates thousands of hits, there was no reasonable way to be exhaustive in clicking through every search result, nor would this have assured a comprehensive treatment of the subject matter. Furthermore, as the study drew from secondary sources, information about stakeholder identification, quality of participation and its required inputs, and outcomes of participatory processes was inherently slanted by the views of the author and the focus of the case. Follow-up searches attempted to capture multiple views of highlighted case studies, but published, competing perspectives on specific case studies were not always available. Likewise, all of the desired information related to each parameter of analysis was not always fully available for each case study encountered. There was no way to judge the degree to which the sample of case studies encountered on the internet was representative of the actual range of experiences using each tool in different environmental policy settings.

The case studies that were encountered are instructive of these sampling biases. As a general trend, case studies from developing countries tended to be more plentiful for decision processes on site-specific, project-level activities, often funded by external donors (who typically operate at this level). In contrast, case studies of participatory experiences at the policy decision-making level were far more readily encountered in developed country contexts, where they are generally institutionalized into democratic processes. As the study aimed to identify primarily developing country case studies, more cases were therefore encountered for tools more readily applicable to site-specific

contexts, such as participatory workshops and citizen advisory committees, than for tools more heavily used for broad policy decisions, such as referenda or notice and comment.

The case study analysis, in general, also limited the ability to draw conclusions about potential causal relationships between the use of certain participatory techniques and actual decision outcomes, in light of the absence of counterfactual information (e.g., what would have happened in a given context if a given tool had not been used). As noted above, this point is particularly relevant to judging the role of participatory processes in achieving more just distributional outcomes in a given environmental decision-making context. That is, even if a particular participatory *process* is equitable and inclusive, the final distribution of environmental costs and benefits on the ground may not always follow suit.

In spite of these limitations, the preliminary empirical trends identified can nonetheless serve as instructive reference points to governments considering various approaches to incorporating participation into environmental decision making at policy, planning and project levels. This study thus aims to be useful to governments who are already interested in the potential benefits of different types of participatory decision-making tools in environmental decision-making arenas, rather than concluding concretely which specific tools are most suitable to particular decision contexts.

The remainder of this report analyzes the seven participatory tools selected against five input and three output categories that are necessary to achieve environmental justice. An overview and description of each tool is provided, as well as the capacity requirements (inputs) for each tool and the implications for environmental justice (outputs). To assist readers in understanding the context where each tool could be most effectively applied, sectors and contexts where each tool has been used and short descriptions of selected case studies analyzed for this report in the “Tools in Action” boxes are given.

II. Use of Participatory Tools in Practice: Empirical Evidence

1. Notice and Comment

Overview

Notice and comment is a common procedure, frequently required by law, under which a proposed rule, policy or activity is made available for comment by the general public for a pre-determined period of time (OMB 2005). Comments are then due by specified dates. Ideally, all comments are read and considered in the final decision. Otherwise, the decision-maker must give a rational response and explanation to any and all comments (Aman 1993). In the United States, the instrument originated as a development in administrative law meant to expand public participation in the formulation of standards, while at the same time enabling agencies to adopt rules quickly and easily without going through formal bureaucratic rulemaking processes (Seidenfeld 1997).

Most of the time the tool is treated as merely a legal hurdle that an agency must clear in order to adopt a new rule (Seidenfeld 1997), a late stage in policy making to test the legal support of a decision for which agencies have already invested substantial time and resources to develop detailed proposals (West 2004). Yet notice and comment procedures can at least in theory be used to (i) mitigate informational disadvantages and increase transparency between agencies and politicians or the public; and (ii) enfranchise important constituents in agency decision-making, assuring that agencies are responsive and accountable to the public. It incorporates due process into decision making to ensure actions are neither arbitrary nor capricious. An agency must announce its intentions to consider an issue well in advance of any decision, and actively collect and disseminate information to the public. Occasionally, depending on the actions of both sides, public comments can help identify interests or effects of policies that agencies would not have otherwise considered (West 2004).

Contexts/sectors where used

Notice and comment is ubiquitous in policy arenas in many countries. In the United States, notice and comment is required any time an agency is making a policy decision, including on environmental issues. Korea has a similar Administrative Procedure Law which requires agencies to announce in advance and accept public comments on proposed administrative regulations that are 'of great influence to the livelihood of citizens' (Ginsburg 2002). While more prevalent in developed countries than developing countries, ongoing legal reforms in many countries have led to a continuous increase in the number of countries using notice and comment periods for policy and project-level decisions. Even in countries like China, with no democratic governance tradition, local governments have begun to experiment with this tool.

Notice and comment is not solely used in agency rulemaking instances, it has potential for and is used in a wide scope, for example, in establishing a new business in a local area (CLM 2007) or standardizing a permitting process (Lubbers 2006). It is also sometimes used by elected leaders as an instrument for political or procedural accountability over the actions of appointed bureaucrats (Balla 1998, McCubbins, et al. 1987, West 2004). For this report, case studies were found of notice and comment processes in the forestry, water, and transport sectors.

Capacity Requirements

Time

Notice and comment is a lengthy process, due to the need to leave ample time for the public to submit comments. Comment periods were found to range from 15 to 180-days, depending on the complexity of the issue at hand. Depending on the scale of a notice and comment period, any final decision or rule may take between several months or even several years. More local decision-making may consist of 2-3 comment periods and a final rule spread out over a six month period (Lubbers 2006). Large-scale national rulemaking, on the other hand, requires much more time due to the complexity of both the issue and the number of officials and stakeholders involved.

Human Resources and Funding

The process of posting notice in an official publication or another publicly accessible area and receiving comments is not resource-intensive. Especially with a move towards online websites and electronic comments for more developed countries (Mahler and Regan 2002), the funding required to disseminate information has decreased. The “notice” of the notice and comment process simply consists of an official announcement of an agency’s opening or request for comments, as well as compilation of any relevant information to the issue. However, receiving, handling, and if required, summarizing and responding to comments is indeed a resource-intensive process that may require additional staffing, especially on controversial issues on which an agency may receive hundreds of thousands of comments from the public.

Education and Knowledge

Participants must foremost have knowledge of the notice and comment process to participate. Assuming this is adequately publicized, individuals must be literate enough to read proposed rules (legal-ese) and write effective comments. This generally entails more than basic literacy levels. Given that body language and verbal cues cannot factor into the communication process, the burden falls on the participants to effectively convey their thoughts and inputs in the “language” of decision makers in order to be heard. Individuals without high levels of education may thus be less likely to participate, finding the process intimidating. In addition, an individual must also be knowledgeable of the issue at hand and have individual commitment to an issue in order to understand, reflect, and comment.

On the government's side, no special skills or knowledge are needed to set up a notice and comment period, collect, read and respond to comments. Yet the public must have sufficient confidence that the government possesses adequate capacity and political will to take into account public comments made in order to justify spending time commenting.

Tools in Action #1: Notice and Comment, Northwestern United States

On February 8, 2007, the US Fish and Wildlife Service (FWS) published a proposal in the Federal Register to establish a distinct population segment (DPS) of the gray wolf in the Northern Rocky Mountains (NRM) and to remove this DPS from the list of threatened and endangered species. The initial comment period was open for 60 days, but due to the complexity of the proposed action and the presentation of new information following the original period, FWS extended the comment period twice, for 30 additional days each time. On February 27, 2008, one year after the first posted notice related to the legislation, FWS issued a final rule establishing the NRM gray wolf DPS and removing the entire DPS from the List of Endangered and Threatened Wildlife (FWS 2008).

During the second comment period, FWS received 260,000 comments, most by email. More in-depth and detailed comments that raised previously unconsidered issues usually came from staff at NGOs or interest groups, including tribes, state and other federal agencies. Many comments referenced biology and statistics, sometimes providing the agency with information that they were previously unaware of. Other comments indicated to the agency that it had not adequately explained a process or a goal.

While the major conclusions of the final rule weren't affected by comments, in an interview, the FWS Wolf Recovery Coordinator for the Western United States, Ed Bangs, reflected on the benefits of the notice and comment requirement in general and in this case. He claimed that, in his experience, there was "never a rule that [hadn't] been improved through public comment," attributing much of this to the increased generation and acquisition of ideas and information that can result from public comments. In his words, "Going through a comment process means that nothing is left unknown. Every possible thing has been dragged out into the open...it helps people hear and understand other's view points...It helps people accept the final decision, too, and to recognize that there are always trade offs." (Bangs 2007)

RECENT UPDATE:

After FWS issued its final rule, delisting the NRM gray wolf DPS, several parties filed a lawsuit challenging the rule and asking to have it enjoined. The U.S. District Court for the District of Montana ruled in favor of the plaintiffs, and sent the rule back to FWS for further consideration. FWS reopened the comment period on October 28, 2008 for another 30 days (but not accepting email comments this time), with the goal to reconsider the 2007 proposed rule and eventually issue a new listing determination.

(Sources: Bangs, 2007; FWS, 2008)

Implications for Environmental Justice

Inclusion

Notice and comment has the potential to be highly inclusive. If used effectively, the entire public can be informed on an issue, and everyone has the opportunity to comment.

However, its use in developing country contexts has shown many barriers to inclusion. Though previous knowledge or a given educational level is not *explicitly* required, low levels of education and knowledge may act as a barrier to participation by members of the public. Similarly, lack of access to information is a barrier. In developing countries in particular, online comment forms are highly exclusionary, given that few people have computers, let alone internet access. Even where internet access is available, bandwidth may not be sufficient to allow people to download often massive technical files for review and comment.

The time intensive nature of actually going through publicly disclosed information in order to provide reasoned comments is another barrier to inclusivity. Organized interest groups such as industry or public advocacy lobbyists and lawyers are often the only ones with sufficient capacity to participate, and these groups do not necessarily represent the entire public opinion, let alone marginalized voices. For example, in the US, several important initiatives by the Department of Housing and Urban Development and the Social Security Administration generated very small numbers of comments because of the lack of well-organized groups within individuals affected by the policies (West 2004).

Interaction

Notice and comment scores very low on the interaction dimension. Though citizens have the opportunity to comment, if agency response is not required, this “participation” can easily become one-way communication. In cases where the public is allowed to comment and the agency makes sure to post responses to comments, both sides are often more satisfied with the process (Lubbers 2006), and individuals feel more included in the process with increased interaction. Good practice includes publishing a full summary and response to issues raised by public comments, and an updated analysis and justification of final decision.

Empowerment

Research has found that the key component in determining whether an agency makes a change from proposed to final rulemaking is the amount of consensus in the public comments. As consensus increases, agencies are more likely to make a change. If public opinion is divergent, agencies tend to side with the comments supporting the agency's position (Golden 1998). This does not bode well for the empowerment of marginalized groups, who generally represent minority opinions.

Viewing empowerment as the degree to which participants have an opportunity for ongoing involvement or influence, the record is mixed. Empowerment is generally low, as officials are not mandated to make modifications based on comments—they must only justify how decision taken in light of comments. In many cases, a rule is likely to go through independent of issues raised during public comment. The posting of notice and opening of a comment period is treated as bureaucratic afterthought. An agency often publishes a full response to issues raised by public comments and an updated analysis and justification for a final rule, though this is not always required. In some cases, if it raises

new issues, an agency will publish a second draft to a proposed rule with notation of changes from the first draft, to give the public another opportunity to comment, although a rule will more often than not be finalized without this additional comment period. However, laws usually allow the public the opportunity to take legal measures to appeal decisions afterward in judicial review.

Other Issues of Relevance to Environmental Justice

Ex ante administrative procedures increase accountability by enfranchising particular constituents. Stakeholders with particular interests that are active participants in an issue are given representation through the process, so that each will be protected against any unfavorable policies or changes by an agency (McCubbins, et al. 1987). Notice and comment is ideally used as a framework to ensure fairness, transparency and thoroughness with due process and public participation.

Tools in Action #2: Notice and Comment, China

In China, there is no tradition of any form of public participation in government affairs, but the idea has recently spread, especially among local governments. Notice and comment is the first and primary tool to enjoy uptake by governments. As such, it represents important strides in increasing citizen voice in public decision making.

In one recent example, the City of Guangzhou Office of Legal Affairs (OLA) planned two phases of public participation: first, the pre-proposal phase, giving the public advance notice of a proposed rule and allowing for a 30-day notice and comment period. Notices were posted on various local markets and stakeholder office bulletin boards, websites and newspapers, and they received 12 comments containing a total of 30 recommendations, a summary of which was posted to the OLA website a little over a month after, along with responses from the OLA. The second round of notice and comment came with a full draft of the text for the new regulation. The office made great attempts at outreach, distributing 5,000 booklets of the draft in the local markets, along with other modes of public participation including mini-conferences and open debates. In the second phase, the OLA received 109 comments; office representatives said that the final submitted rule had been revised according to public comments and ensured that the final text, all comments and OLA responses would be posted on the website soon. The Director of the OLA claimed the process as a “big success.”

Surveys after the rulemaking showed that the low level of participation was due mostly to inexperience in such administrative procedures and an overall lack of confidence in public participation processes. The OLA plans to increase publicity over government responsiveness to public comments and education over the process. A final policy on rulemaking offers many opportunities for varying lengths of notice and comment and deadlines for responses by agencies. These new rulemaking measures aim to increase public participation and the openness of regulatory processes. While it's too soon to tell the success of the measure, there has been increased interest in municipalities throughout China, and Guangzhou's willingness to listen to public opinion is certainly to be applauded.

In the National Legislation Law (NLL) of 2000, there is no legal requirement for notice and comment, but the aim in inviting public suggestions into the law-making process is to show an open, scientific and democratic attitude. For example, the National People's Congress (NPC) received over 320,000 “opinions” on a draft labor contract law. In this case, the NPC did not respond to the large number of comments, but in a Property Law draft, did publish responses to

24 major issues identified in the 11,543 comments received. Any attempts at amending the NLL may come in the future, but many cities have continued experimenting with the process.

(Source: Lubbers, 2006)

Tool Summary #1: Notice and Comment

Time	Human Resources	Funding	Knowledge
<ul style="list-style-type: none"> Lengthy process. 	<ul style="list-style-type: none"> Potentially high, if receiving, handling, summarizing and responding to comments. 	<ul style="list-style-type: none"> Low. 	<ul style="list-style-type: none"> Low, organizer compiles already-existing information.
Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> Theoretically high, but many limiting factors. 	<ul style="list-style-type: none"> Not very interactive, depends on level of response to public comments. 	<ul style="list-style-type: none"> Generally low, modifications based on comments are usually not required. 	<ul style="list-style-type: none"> High, literacy and knowledge of the notice-and-comment process and period required.

2. Public Hearings

Overview

A public hearing is one of the most common methods of public involvement used in both developed and developing countries. As Fiorino (1990, 230) states: “For many issues, the public hearing is the only institutional form of interaction between the agency and the public.” In spite of this, “the literature on public hearings is both substantial and thin. It is substantial in the amount of descriptive and prescriptive writing available [It] is thin in systematic research that analyzes the effects of the hearing process on policy outcome.”

Public hearings are often formal requirements for policy, judicial, and project-level decision making processes. In the former, presentations are made on legislative decisions or policy matters to the public to obtain their views. Public hearings in judicial contexts aim to document testimony to fulfill requirements for legal proceedings. In a project context, public hearings are often a required part of an EIA process. Public hearings are generally announced well in advance to the public, frequently through mass media outlets such as newspapers, publicly posted notices, or by mail to concerned parties.

IAP2 makes a narrow distinction between public meetings and public hearings, defining the former as “An organized large group meeting usually used to make a presentation and give the public an opportunity to ask questions and give comments ... open to the public at large,” and the latter as “formal meetings with scheduled presentations offered ... [where] members of the public individually state opinions/positions that are recorded.” Yet for purposes of this study, any legislative or project-based process where presentations were made and the public was given an opportunity to comment were considered to be public hearings, even if the literature sometimes referred to them as public meetings.

Public hearings rank only at the “consultation” level on the scale of participatory techniques. The public can ask questions and voice their concerns, but information flow is generally one-way, and there is no guarantee that concerns raised will be addressed in the final decision.

Context/Sectors where used

Public hearings are used to obtain public testimony and/or comment in a wide range of decision contexts such as policy-making, drafting/amending legislation, and EIAs. In all sub-fields of the environmental arena, public hearings are ubiquitous. As noted above, many countries legally require public hearings as part of a decision making process.

Despite widespread use, specific case studies of public hearings were difficult to come by. This may be because in most settings where the tool is used, the process is considered so routine, and the rules so formally prescribed, that individuals rarely write up their

experiences with the process. The analysis below thus draws largely from more general resources analyzing the tool's use in different settings.

Capacity Requirements

Time

The time required depends on the number of hearings that will be held on an issue. Case studies encountered did not specifically mention the length of the process but abstracting from the literature, it is assumed that one hearing could take from a few hours to a whole day of proceedings, plus additional time for preparation, advance notice, and logistics coordination. Rowe, et al. (2000) indicates that a public hearing process could run into weeks, months, or years, depending on the decision timeline and the size of the constituency being consulted.

It is important to provide sufficient advance notice regarding the public hearing, and also ensure that the date selected could enhance maximum participation. As the Nepal case study described below indicates (See Tools in Action #3), affected parties were dissatisfied with the date that was chosen for the public hearing.

Human Resources and Funding

Because of their generally one-off nature and more restricted “participatory” scope, public hearings are generally less costly and staff-intensive than many other tools outlined in this report. Yet nor are they budget-neutral: funds and human resources are required to secure a meeting location, host the meeting, and publicize the event. If several public hearings are held, financial implications could be high.

Education and Knowledge

Since public hearings are meant to provide a live forum for the public to provide comments or raise issues on a proposed activity, they do not require any specific level of literacy or education of the participants. However, the organizers must ensure that adequate information is provided to inform the public on the issue being discussed. In other words, the onus is on the hearing organizers to provide all knowledge relevant to forming informed opinions about the decision at hand. A proper public hearing process must ensure that technical information is conveyed in a way that the general public can understand.

Tools in Action #3: Public Hearing, Nepal

In the case of the Rupsiabagar – Khasiabara Hydro Electric Project in Nepal, a public hearing was held by the project sponsor (the National Thermal Power Corporation, or NTPC) in June 2008 as part of the environmental clearance requirements for the project. Yet at least one NGO, TAI Himalayan, has raised serious concerns about the hearing.

According to the NGO's website, "The Project proponent ... scheduled the public hearing [at a time] when most of villagers are out to higher altitude of mountains to collect 'Yarsagumba' or cordyceps sinensis ... knowing very well that most of the villagers will not be able to participate in the public hearing." The NGO alleges that the meeting was deliberately held on this day to avoid opposition to the project. They claim that not only the day chosen was inappropriate but that villages were not informed about the project properly, there was insufficient notice about the public hearing, and that the executive summary was not made available and the full EIA report was only available 150 Km away from the site.

The project is highly controversial locally, due to significant anticipated environmental and social impacts. According to the NTPC data (which the NGO states is an underestimation), 1,362 families will lose their land as a result of the development. The NGO argues that the compensation given for such projects is inadequate and that farmers will end up leading a miserable life.

At the start of the public hearing, which was scheduled for 11:00am, the locals requested that the panel members postpone the hearing. A few of the villagers, whom the NGO claims were looking to benefit from the project, wanted to continue the public hearing. However, after about three hours, the panel decided to postpone the hearing. Nonetheless, the project developers went ahead and made their scheduled presentation highlighting only the benefits of the project. No questions or objections were raised, as the public had been informed that the real hearing would be held on a day when the villagers were back.

In the NGO's words:

The very next day on June 12, 2008 it was reported in the newspaper ... that the public hearing was postponed due to protest. But the NTPC did not allow the media to ruin their plan to show the public hearing of June 11 as the final hearing to get the Environmental Clearance. The very newspaper ... which reported that the Public Hearing was postponed published an advertisement in its 13th June edition, that the public hearing was held for the Rupsiabagar – Khasiabara Hydro Electric Project amidst protest. This is clearly an indication that the NTPC will submit this as a final Public Hearing, showing the Ministry of Environment & Forest that the project was supported by the locals.

(Source: <http://taihimalayan.blogspot.com/2008/07/public-hearing-at-munsiyari-uttarakhand.html>)

Implications for Environmental Justice

Inclusion

Since public hearings are open to the public at large, theoretically they are meant to be inclusive. However, in reality, marginalized groups may face barriers to participating due to the time and costs required to travel to the meeting site and sit through the presentations. Inclusion also depends on the degree to which public hearings are effectively advertised ahead of time to all relevant stakeholders. Cultural barriers may

further factor into a group's reluctance to participate or lack of comfort with speaking in front of officials. Prior negative experience with public hearings as a mere legal formality can also discourage some members of the public from even showing up, given that public hearings generally do not achieve genuine participation nor satisfy the participants that they are being heard.

Because of all the challenges outlined above, generally those who participate in public hearings are either avid proponents or opponents of the issue, or representatives of organized interest groups that have an economic stake in the decision (Innes and Booher 2004, Fiorino 1990). When hearings are dominated by those with strong views, moderates who may represent large segments of the community are left out (Adams 2004).

Interaction

Although information flow is supposed to be two-way, it tends not to be deliberative and does not foster a constructive dialogue. The public has a chance to voice their opinions, but the process does not permit engaging officials in a dialogue to persuade them to change their position. This creates an "us" versus "them" atmosphere, as demonstrated in the case study in Nepal highlighted above.

In controversial projects, tensions often run high among opposing stakeholder groups, and managing the question and answer session maybe quite difficult. Innes and Booher (2004), citing several studies on public hearings in the US, make a number of salient observations about the shortfalls of the tool in fostering productive, inclusive interaction:

- Distribution of power is evident in the physical layout and the rules for speaking. Officials conducting the processes analyzed were generally on a stage, and the public was given generally just 2-3 minutes per speaker to comment.
- To be heard, the citizens either expressed anger or made extreme statements to get the audience riled up.
- There tended to be a sense of feeling among individuals that they were engaged in a battle.
- Inequalities were shown in the way speakers were treated. Some disadvantaged groups felt that the more powerful were given more time than others.

Empowerment

This is one of the tools that fosters the least empowerment. As with any strictly consultative tool, there is no guarantee that comments raised at public hearings will be addressed. As described by Arnstein (1969), public consultation lies on the lower rungs of the ladder and is considered at a mere degree of tokenism. Under these conditions, there is no follow through and the participants lack power to ensure that their concerns will be heeded. Adams (2004), citing criticism of public hearings, describes hearings as democratic rituals that gives a false sense of legitimacy to legislative outcomes, where officials could say they received the input of the public although it has had no impact. In a study done by McComas (2003), to examine participant's views on government

sponsored public meetings about waste sites in two neighboring communities in upstate New York, results indicated that the participants overwhelmingly believed that their participation made no difference. Even the participants who made public comments at the meeting did not believe that their views would matter.

With respect to marginalized groups specifically, it is clear that in a large gathering such as public hearings where it is difficult to get “air time,” such groups may not get a chance to voice their view, or may not be comfortable to express their views in such an environment. Therefore, it is not an effective tool to engage marginalized groups.

Why, then, do people participate at all, given widespread cynicism about the tool’s efficacy? McComas (2003) postulates that people may attend (i) to acquire more information; (ii) to learn how other people in the community feel about the issue; (iii) to offer support to neighbors or friends who feel more strongly about the issue; (iv) to provide them with psychological relief that they are doing something; (v) to feel they have a sense of having some control over the situation; and (vi) to serve a type of ritualistic⁵ purpose for community. In this sense, a limited amount of community-building could result from a public hearing process. Yet overall, experience has shown that this tool does not score high on the empowerment front.

Tool Summary #2: Public Hearings

Time	Human Resources	Funding	Knowledge
<ul style="list-style-type: none"> ▪ Vary from low (one hearing) to high (several consultations over the period of preparation of a project, policy or plan). 	<ul style="list-style-type: none"> ▪ Low. 	<ul style="list-style-type: none"> ▪ Low, significant funds are not required. 	<ul style="list-style-type: none"> ▪ High knowledge requirement by organizers, particularly to present information in a way it could be understood by participants.
Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> ▪ Theoretically a highly inclusive process 	<ul style="list-style-type: none"> ▪ Low interaction, creates an “us” versus “them” atmosphere. 	<ul style="list-style-type: none"> ▪ Low, no guarantee that issues raised will be considered in the follow through. 	<ul style="list-style-type: none"> ▪ No specific level of literacy or education is required of participants.

⁵ Defined as “a structured social and symbolic activity that invokes, demarcates, or celebrates a community’s deepest and most closely held values, of what it holds to be sacred. Ritual is thus context, rather than purely content, dependent.”

3. Focus Groups

Overview

A focus group is a small discussion group with 6-10 of stakeholders facilitated by a skilled moderator. The main objectives of the tool are to obtain information about different views and values of various stakeholders on a certain topic and to investigate dynamic interactions within the stakeholder groups. In this sense, a focus group consists of both structured interviews and a discussion. The technique was pioneered after World War II by the United States Army to analyze training and morale films (Stewart et al. 2006). The technique became widely disseminated and used in various other research contexts as a supplement to individual interviews.

Focus groups are not without their disadvantages, however. Sometimes group expression can interfere with individual expression, and the results may reflect ‘groupthink’ (Slocum 2003). Specifically, the outcome of focus group discussions may be dependent on who the group consists of and how they are combined in addressing the issues at stake. In this sense, voices from marginalized people may be disregarded. Other times, some participants may not be willing to share their own ideas and perceptions. For example, in the case of siting a waste treatment plant in Hampshire, UK, some extreme activist groups refused to take part in the discussion, and thus their networking, knowledge and concerns on the issue were separated from main flows of information exchange (Petts 1997).

Through focus group techniques, members of the public are able to engage in research conducted to inform decision making. The focus groups are especially useful for brainstorming of initial concepts and generating creative ideas from the public (Vernon et al., 2003). They are also very useful in collecting different perspectives taking account of geographical and gender differences. Furthermore, social interaction is stimulated through the focus groups. For this reason, they are often used in project evaluation and in testing messaging strategies to inform the public on various issues. Experts on the issue are generally also brought into focus group discussions. Therefore, when used effectively, the focus group may be able to force experts to listen to public concerns, bridging the knowledge gap between the public and the experts.

Contexts/sectors where used

Focus group techniques have recently been applied to the environmental decision-making arena. In recent years, environmental sciences and technology assessment scientists have made increasing use of focus groups. In environmental arenas, they have been used for purposes such as gauging the perception of local residents towards a planned waste incinerator (Liebow, et al. 1993), investigating national energy policies (Dürrenberger 1999), and exploring options for local sustainability policies (Macnaghten, et al. 1995). They are particularly useful in environmental decision-making as participants’ reasoning behind their views, interests and opinions are revealed in the course of discussion.

Specifically, environmental contexts in which focus group techniques are used were found to include integrated water management (IWRM 2008), technology and business improvements with regards to greening an industry (Vernon, et al. 2003). Focus groups have also been used successfully with small business to explore the views relating to ethical and sustainability issues. The World Bank has developed a program that uses focus groups in environmental governance in response to the needs of environmental policymakers, enforcement officials, members of the judiciary, parliamentarians, journalists, civil society, and private sector representatives (World Bank).

Capacity Requirements

Time

Several case studies on the use of the focus group technique revealed that a great deal of time and resources are required (Petts 1997, IWRM 2008). The actual execution of a focus group typically ranges from a one-day discussion to a period of several days, which is relatively short compared to individual interviewing. On the other hand, focus groups can be a time consuming participatory method, due to their requirement of careful, detailed planning in terms of the recruitment of the participants, as well as the fact that usually several focus groups are conducted concentrating on different issues within a project. In addition, interpretation of gathered information also takes time.

Human Resource Capacity and Funding

The cost of conducting focus group discussions may vary greatly, depending on how many members are included and how many sessions the groups hold. According to Dürrenberger (1999), the unit cost for a single 2.5 hour focus group session (6 persons) amounted to about US\$2,000 (based on labor costs in Switzerland). Total costs without producing input material and transcripts were projected to be up to US\$3,500, while the transcripts of ten hours of discussion were projected to be US\$2,500. Cash incentives may also need to be offered to persuade reluctant individuals to participate.

Focus group discussions also need a neutral moderator who is skilled in facilitating to maintain group control and ensure adequate voice to all participants. In this technique, balancing participant similarities and differences is important, because too much diversity may only cause conflicts among the members of the group without any fruitful outcomes.

Education and Knowledge

There is no pre-requisite education level needed to participate in a focus group. As with participatory workshops, however, there is a tension between making each focus group diverse versus similar with respect to participants' knowledge and educational background. Case study evidence was not conclusive as to which approach ultimately could lead to better procedural justice outcomes.

With respect to government knowledge and skills that must be provided to use this tool, focus groups require skilled facilitators as well as the provision of expert knowledge to participants for their reactions. Yet this information must be appropriately targeted to the lay audience. A case study of focus groups held to inform climate change policy in the EU revealed that highly sophisticated expert information is generally not well received by focus groups, and in fact may exclude lay people who are less familiar with the information, thus preventing the participants from casually expressing their perspectives (Dürrenberger 1999).

Tools in Action #4: Focus Group, waste management strategies in Hampshire, United Kingdom

The Hampshire County Council established a public involvement program using focus group techniques in order to identify issues and concerns of the public on waste management strategies, and to provide feedback to the County and Districts on a desirable strategy. The entire public involvement program lasted for two years from June 1993 to January 1996. As a part of this program, 12 focus groups were run for three months from September 1995 to December 1995. The objectives were to address waste management (reduction, recycling, recovery, and landfill) in an economically and environmentally effective manner, taking into account the general opinions of the public in the local context. The members of the focus groups were randomly selected as a means of stimulating widespread debates among diverse socio-economic groups.

(Source: Petts 1997)

Implications for Environmental Justice

Inclusion

In theory, focus groups can be inclusive of a variety of stakeholders, including marginalized groups, when members are chosen at random from a broad population. However, members of focus groups are not always chosen to represent a broad cross-section of society, but rather based on their similarities. As the Estonia case reveals, focus group participants tend to actively participate and share their perspectives when they are with other people from homogeneous backgrounds. This of course means that individuals not linked with the original focus group members are often excluded, even if they might have held valuable knowledge and perspectives.

Interaction

Generally, focus groups are highly interactive among the participants. The stakeholders in a focus group may be able to build networks or partnerships, as well as a sense of ownership of their inputs on an issue. This is due to the group situation which provides respondents with the comfort of peer security, and enables the use of snowballing and synergic techniques for discussing new emerging issues. The level of interaction becomes higher if participants hold similar interests and concerns related to the topic.

Empowerment

A major advantage of focus groups may be that the groups can later identify their role in generating the policy that results (Kahan 2001). The use of focus groups in a decision process about how to strengthen a river dike in the Netherlands is a good example of empowerment. The policy problem here was to find ways to balance the total costs against the benefits of lives and property saved by preventing the river from overflowing inside the dike ring (Kahan 2001). During the policy making process, five focus group discussions were conducted along with feasibility studies on dike construction. The members of the focus groups included not only environmental NGOs, but also the people who live near the dike and the citizens who pay taxes for the dikes. Such inclusion of people who might be both directly and indirectly affected by the construction of the dike gave them a voice throughout the policy making process. Kahan's study concludes that participants in all groups strongly believed that their views should be heard in the process of deciding what types of dikes should be built, where, and when. It also argues that such involvement has aided the acceptance of findings of scientific research. Therefore, focus groups may support political feasibility of a policy decision through empowering the affected people.

Tools in Action #5: Focus Group, flood protection in the Netherlands

Due to the strong public debate on the issue of flood protection, scientific analysis and five focus group discussions were conducted in order to explore the perspectives of various stakeholders. Each of the focus groups consisted of 10-16 participants as follows: environmental activists, environmental advocates, the elected water boards, local governmental agencies charged with flood protection, people who live along the dikes and therefore may be affected by the risks of flood and dike construction and the city dwellers who are indirectly affected but pay taxed for the dikes. This "giving of voice" leads the groups to perceive the process as fair, and makes them more willing to live with policies that are, in their view, less than perfect. In this way, the openness of the process builds popular support for the inevitable compromises that have to be made.

Tool Summary #3: Focus Groups

Time	Human Resources	Funding	Knowledge
<ul style="list-style-type: none"> High, full process can range from 2 months to 1 year. 	<ul style="list-style-type: none"> A neutral, trained moderator or facilitator is required. 	<ul style="list-style-type: none"> Variable. 	<ul style="list-style-type: none"> Skilled facilitator needed.
Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> Theoretically inclusive dependent upon participant selection process 	<ul style="list-style-type: none"> Highly interactive; able to build partnership and ownership feeling among participants. 	<ul style="list-style-type: none"> Generally high empowerment, assuming suggestions are taken into account. 	<ul style="list-style-type: none"> Minimal requirements though common knowledge make for more effective interaction.

4. Participatory Workshops

Overview

Participatory workshops are action oriented events, where a diverse group of stakeholders come together to address an issue. They can be used in all stages in policy or project development and implementation, from planning through evaluation. Generally these workshops are led by skilled facilitators (supported by others, depending on the size of the group) and go beyond information sharing, seeking rather to engage stakeholders to build consensus, seek solutions, and make decisions. The number of participants can vary from a small group of less than 10 to larger groups. In large group gatherings, the participants can also form smaller groups (ADB 2001). The workshops may include presentations and exhibits, and end with interactive working groups. The difference between participatory workshops and public hearings is that workshops are more interactive sessions, may be more specifically targeted toward individual stakeholder groups, and more often result in the adoption of changes to the proposed policy or activity based on feedback obtained from participants.

Participatory workshops encompass a variety of techniques, used by the facilitators to: (i) help the group feel comfortable with the participatory approach; (ii) encourage people to share information, ideas, concerns and knowledge; (iii) support learning in a group; (iv) help communicate effectively; (v) manage group dynamics; (vi) keep work practical and relevant; and (vii) help group take control of the process. As detailed in Box 7, such techniques may include games, role play exercises, visual mapping, all of which can help stakeholders analyze problems, describe local situations, and rank preferences or options according to perceived importance. Participatory rural appraisal (PRA) uses a combination of these tools, and is one technique used at participatory workshops. Therefore, discussions in this section also draw from literature and case studies entailing PRA.

Box 7: Techniques Used within Participatory Workshops	
Participatory Workshop technique	Description and usefulness
Games	Used by facilitators, to help participants get to know each other and work together, and to give participants more energy and enthusiasm
Role playing	Participants act out characters in a pre-defined situation, followed by an evaluation of the interaction. This enables participants to gain an understanding of the issue and see it from another's perspective.
Visual mapping	Facilitators help participants to make visual diagrams, to analyze problems, describe a local situation, and rate the importance of things. For example, the community may map the village,

	marking important features, or create a problem tree, which helps the community break down larger issues into smaller issues which can be more easily understood and addressed.
Sources: Adapted from International HIV Aids Alliance, 2001, A facilitators guide to participatory workshops with NGO's/CBO's responding to HIV Aids and IAP2 – Public participation tool box	

Context/Sectors where used

Participatory workshops can be used at all levels of decision making, from community based management planning to national level planning across several sectors, and at all different stages of the planning and project or policy implementation cycle. In case studies reviewed, participatory workshops were used in decisions related to forest management, parks and protected areas management, rural development, water policy, watershed management, climate change policy, and agricultural management. Case studies were plentiful from developing as well as developed country contexts.

Capacity requirements

Time

Generally a minimum time commitment of two days by the participants is required. When the question is well defined, this time frame is feasible to gather information needed for decision making and to clarify uncertainties with the participants. Participatory workshops are often conducted several times during policy preparation. Some of the case studies reviewed indicated long term process of up to nine years, implying that several workshops have been held over that time period. The case studies did not indicate the number of times workshops were held during the entire process, however.

Human Resources and Funding

Funds are required to pay for the venue, host the participants, pay for a facilitator and, in some instances where workshops either proceed for more than one day or attendees are traveling far distances to participate, provide accommodation and meals to participants. In addition, participatory workshops require background materials, stationary and other miscellaneous items. In rural settings, where the community is engaged in daily wage labor, getting broad representation of stakeholders at the workshop may require providing a per diem to compensate for the day's loss in wages. This must be carefully balanced so as not to become unmanageable, as there may be some participants who take part in the process only to receive the financial benefit.

In the studies reviewed (where information is available), developing country proceedings have generally been financed by donors (mainly bi-lateral).

Tools in Action #6: Participatory Workshop, Nepal

In Nepal, 29% of land is covered by forest, 10.6% by shrub and 12% by grassland. Several forests in the Himalayan foothills are under heavy pressure from surrounding villagers. Prior to 1957, when forests were nationalized, the villagers managed the adjacent forests to meet their local demands. With the initiation of community forestry in 1978, legislation was passed to give formal recognition to villagers to manage forests. The Forest Act of 1993 provided authority to users to manage the forest resources. Through a series of participatory workshops, meetings, and PRA organized by the district forest officers (DFO), co-owners were identified, and communities were organized into Community Forestry User Groups (CFUGs). These CFUGs drew up constitutions and operational plans, which defined and recognized forest user rights and rules, and the CFUGs took forest management decisions.

By establishing constitutions, clearly the CFUGs were empowered to make most decisions, with guidance from the government. Yet women and disadvantaged groups were left out of the decision making process of the CFUGs, resulting in disproportionate control over forest resources going to the local elites and large landowners within the CFUG framework. However, the study indicates that the government did not have sufficient field staff to provide the required extension services. Poor families thus withdrew membership from the CFUGs, due to high annual membership fees and a widely shared perception that they received only limited benefits.

(Source: K.P Acharya. 2002. "Twenty-four years of community forestry in Nepal." *International Forestry Review* 4(2): 149–156).

Education and Knowledge

A limitation for government agencies conducting such exercises is their lack of skill in effectively interacting with communities. The use of facilitators/moderators in a participatory workshop can help overcome this limitation. Yet Kapoor (2002) argues that the facilitator's broad discretionary power may lead to his or her intervening in discussions, taking sides etc., rather than acting with transparency, humility, honesty and respect. As the Nepal case study (Tools in Action #6) illustrates, if the facilitators are not sufficiently adept, the required level of inclusion and interaction may not occur, however participatory the tool may be. This underscores the importance of utilizing a highly trained facilitator to ensure positive outcomes of the process.

With respect to required education and knowledge of the participants, since a variety of techniques are available for use by facilitators, a participatory workshop could be designed to cater to differing levels among different groups. For example, in a rural setting, visual aids could be used to elicit information from participants, regardless of their literacy levels. This may involve mapping on the floor or use of stones and sticks for ranking exercises. A certain level of background information has to be provided to enable the participants to participate effectively.

When different participants have different education levels, a decision must be made as to whether to conduct separate workshops with each group or whether to bring diverse groups together in a single forum. Each carries benefits and risks. In a watershed management case from Spain and Italy (see Tools in Action #7 below), for example,

efforts were made to reach out to diverse stakeholder groups to bring them all together into one workshop, but farmers (a group with less formal education) initially turned out in lower numbers than other groups, perhaps because they did not feel comfortable in the setting. In another case study from Madagascar (see Tools in Action #8 below) aiming to develop a broad consensus on conservation and research priorities, on the other hand, facilitators held workshops with user groups and scientists separately and then subsequently merged the two resulting plans. While the Madagascar approach gets around the issue of unequal representation at a single workshop due to education differentials among stakeholders, the case study information is too limited to conclude whether this approach would always produce better results.

Tools in Action #7: Participatory Workshop, Spain and Italy

As part of a project to develop watershed management plans in dry regions of Spain and Italy, three workshops were held in each country. The first workshop aimed to gauge interest and identify stakeholders to participate in the exercise; the second workshop (using forecasting techniques) aimed to produce a broader, more creative vision of future; and the third workshop (using backcasting techniques) aimed to brainstorm more concrete steps/actions to get there. The organizers aimed to attract a broad and representative cross section of stakeholders with mixed education levels at the workshops in each country. Interestingly, farmers were noted to be under-represented in the first round of discussions in both countries. In both cases, this was rectified for the second workshop. However, it remains unclear whether their initial absence was due to inadequate numbers of invitations sent, whether the farmers felt uncomfortable representing themselves in such a diverse group, or whether perhaps the event's timing was poor (e.g., if the farmers were preoccupied with time-sensitive farming activities).

(Source: Kok, et al., 2006).

Implications for Environmental Justice

Inclusion

If the workshop process is managed well, it can be highly inclusive, providing an opportunity for all voices to be heard. Inclusion of a cross-section of participants in a workshop facilitates the exchange of ideas among different knowledge groups. In the case studies reviewed, it appears that in some instances, some representatives have felt that the process did not include sufficient representation. But this cannot be generalized as an aspect of the tool; it is more how the process was organized. Also, the Nepal case study above mentions how poorer members of the community withdrew their membership as they perceived that benefits received were inadequate compared to the membership fee they had to pay.

Kapoor (2002) raises concerns regarding the gender implications (in a rural context in particular) of the required time, energy and resources to attend workshops. Some have pointed out that women, due to their long working days (compared to men), may be unable to participate.

Interaction

Most cases reviewed report a high level of interaction. The approach adopted in participatory workshops fosters public ownership, builds credibility, helps small group or one-to-one communications, and maximizes opportunities for feedback from participants (IAP2 2006). Chances for participation are logically greater in small groups. Most people – particularly marginalized groups – find it difficult to speak among a large group of strangers. The process adopted in workshops encourages participants to see other points of view and deliberate on decisions to be made.

Empowerment

In the case studies reviewed, it appears that a high level of empowerment was achieved for participants. Since workshops encourage participants to generate ideas and problem-solve, they create a sense of ownership. Participants have to be proactive, and the level of empowerment is often considered high. Open exchange of information among participants helps build their capacity and knowledge. In some instances, the participants' suggestions have even led to legislative changes that further empower the community to make decisions.

Tools In Action #8: Participatory Workshop, protected areas in Madagascar

To establish consensus among stakeholders about conservation and research priorities in forests and protected areas in Madagascar, participatory workshops were organized at two levels. First, a scientific priority-setting workshop was held, where over 100 experts organized themselves into thematic groups and reached consensus on biodiversity priorities. This workshop lasted five days, but data compilation and research for this even was gathered over six months. Findings of the workshop were that many areas of biodiversity importance were outside the Protected Areas, and that corridors needed to be maintained for gene flow and exchange of species. Second stage consultations consisted of workshops with local stakeholders to integrate scientific findings and national priorities and donor inputs with their views. Conclusions reached where that collaborative regional approaches were needed, and a landscape approach to conservation should be adopted. These workshops were done first by conducting rapid rural appraisals among local stakeholders and then inviting key participants of that stage to engage in a stakeholder workshop at the regional level. Finally, a national level workshop was held, where regional results were synthesized to key national policy makers, NGO, donors and government. This staged process of public workshops enabled a diverse group of participants to engage in the process. The stakeholders included scientists, farmer, eco-tourism operators, forest product gatherers, government agencies, NGO's and donors.

(Source: Bowles, et al., 1998).

Tool Summary #4: Participatory Workshops

Time	Human Resources	Funding	Knowledge
▪ Can vary from a minimum of two to several days.	▪ Skilled facilitators are required.	▪ Requirements are high.	▪ Skilled facilitators are required.

Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> ▪ If managed well, it is highly inclusive. ▪ Due to high time commitment required some may not be able to participate 	<ul style="list-style-type: none"> ▪ Highly interactive, due to adoption of small groups 	<ul style="list-style-type: none"> ▪ Highly empowering, participants engage to solve the issue and take ownership of the problem. 	<ul style="list-style-type: none"> ▪ Low, range of tools available to engage effectively with different levels of literacy. Therefore, required levels of education low

5. Citizen Advisory Committees

Overview

Citizen Advisory Committees (CAC) are forums convened to provide advice and recommendations to decision makers on a given policy issue, often retained over an extended period of time. The tool is built on the idea that bringing together a few key individuals who together represent the diversity of views among stakeholders can effectively represent and channel public input into policy and planning decisions. These committees are often comprised of volunteers who are residents of the community and are already knowledgeable of the topic being discussed and its relevant issues. At other times, committee members are hand selected by government. As suggested by the name, CACs are merely “advisory” – e.g., their inputs and recommendations to the government may or may not be taken into account by decision-makers in the end. Nonetheless, experience has shown that CACs have the potential to produce many useful results.

CACs allow different perspectives to come together and understand each other, analyze relevant issues, and create compromises, though their final goal is not necessarily to reach an agreement. Citizens who sit on a committee have an opportunity to play a meaningful role in creating a relationship with local and/or national government. Depending on a committee's level of independence, it can often serve as a useful tool for transparency in decision-making processes, as well as buffer against possible corruption.

Creating an explicit goal to initially convene a committee is often one of the largest challenges to governments interested in utilizing this mode of public participation. Another challenge arises in creating procedures for selecting members of the committee, and finding ways to ensure credibility and public support for the individuals that will be representing different stakeholder groups on the committee.

Contexts/sectors where used

CACs have been used in a wide variety of environmental sectors at the policy, regulation, planning, and project levels. Sometimes advisory committees are even set up to facilitate the use of additional participatory tools, such as workshops or hearings. Case studies found featured CACs in water policy, watershed management, national park management, mining, environmental remediation, solid waste management, transportation, hazardous

waste management, land use, fisheries management, agricultural policy and community food security arenas.

Capacity Requirements

Time

CACs were generally found to be time-intensive processes for the participants, because they are more often than not convened for an extended period of time. The duration over which a committee is convened can vary from a few months, to a few years, to an ongoing permanent committee. Some committees may meet only a few times while others require many hours of commitment from members. For government, the time required varies. In most cases, government representatives either sit on the committee along with citizens, or play an active facilitation role. In all cases, government must provide logistical and administrative support to the committee.

Human Resources and Funding

In the case studies examined, members were often voluntary and not compensated for their involvement. In some cases, however, members were given travel expenses as well as a per diem. Funding can come from a variety of sources: foreign donors, related taxes, or local and national agencies (Lynn 1987). Because they are often convened for extended periods of time, committees often require staffing, either as committee members, facilitators, or observers/supporters. Also, depending on the work scope of the committee, members at times may break up into smaller work groups or even take field trips to a relevant site for additional research, entailing additional costs and human resource needs from the convenor. A CAC is a labor-intensive process (IAP2 2006) and a skilled facilitator, preferably from a third party (IAP2 2006), is often a necessity to ensuring the interests of representatives of marginalized or less powerful stakeholder groups on the committee are empowered through the process, rather than overruled or ignored by others on the committee.

Education and Knowledge

In theory, committee members are chosen because they represent different stakeholder groups on a given issue, not because of their education level. In reality, however, the selection process almost always favors highly educated and knowledgeable individuals. In some cases examined, only experts were invited to be a member on a convened committee. In cases where non-experts are members, facilitators may need to call on external expertise to provide testimony or structure a learning process around the issue with the committee members. Depending on who appoints members – a local panel, the head of an agency, etc. – there may be different education and knowledge requirements for participants.

Tools in Action #9: Citizen Advisory Committee, Sweden

As part of the EU Water Framework Directive, in 2002, Sweden decided that there should be catchment committees in all of its 119 catchment areas to deal with national water resource management. In this case, the Rönneå catchment committee involved 30 people from five different stakeholder groups: farmers, local authorities, point-source polluters, and recreational interests. Farmers, experts, and public officials sought to represent the average citizen. In over 20 hours of total discussion facilitated by an individual with technical expertise, the committee engaged in catchment dialogue meetings, mediating information between stakeholders and regional water authorities to ensure river basin management plans were connected to local and regional communities. The purpose of the convened committee was to enable the development of cost-effective mitigation plans that were acceptable to stakeholders by using the resources of stakeholder groups, including their local knowledge. Positive outcomes included: recognition and listing of water-related interests, development of proposals for a catchment committee board, and voting exercises on six suggested methods for participation and development of a plan for raising the level of participation.

(Source: Jonsson, 2005)

Implications for Environmental Justice

Inclusion

A major concern in using this tool is the scope of participation and engagement, or the inclusiveness of the process. In cases where participation is a volunteer position and there is already a barrier to involvement in the "knowledge" requirement, citizens of higher education are more likely to volunteer. These citizens are also more likely to participate even if the position is not volunteer work, not only because they meet the requirements, but also because their higher education provides them with the confidence, technical understanding, communication skills, and time to volunteer. The danger is that committee members may not represent the diverse interests of an affected community and instead, as research shows, be comprised of a homogenous group of "better educated, higher income, white, and more politically active" participants (Koehler and Koontz 2008).

Because of the time commitment for the usually voluntary committee membership, the time and expense required can also be considered a barrier to participation (Moote, et al. 1997). Individuals of higher age and higher class often have the knowledge to be interested, as well as the free time necessary, to take part in the committee. For example, self-employed people often drop out of committees because of financial losses from taking time off jobs (Moote, et al. 1997).

While a committee has the potential to be a representative advisory board to provide consultation to decision-makers, there are still many barriers to participation. Even if a committee requires representation from all stakeholders or affected interests, certain groups are often noticeably absent if the coverage is too broad. Average citizens or non-organized interests may not even be recognized as stakeholders.

Interaction

One of the benefits for using this, and other, public participation tools is the opportunity for people to come together in the interest of information exchange and learning. Though committees often spend a large amount of time in the beginning to build trust and clarify issues, a CAC is still considered a successful means to allow included interests to share information, express needs, and improve communication. The downside of including so many broad and varied interests is that in the frequent case that requires the committee to reach a consensus in final decision-making, this consensus may never be reached. Even after several years, some committees are unable to articulate a common purpose or goal. With all this emphasis on participatory methods to foster the involvement of citizens in planning, it is often unclear on how a committee will reach an agreement. Skilled facilitation is key in this respect as well.

Empowerment

The process is, or has the potential to be, transparent and highly participatory, beyond merely serving informative or consultative purposes (Baracol 2005). As an “advisory” committee, though, in practice, members may only serve a consultative role in the overall decision-making process. Even if the committee does reach a consensus, their decisions are not necessarily incorporated into action if the committee is not explicitly given the authority.

Advisory committees, of course, give an opportunity for the community to discuss issues and make recommendations, and some even have the authority to allocate resources and enforce members’ agreements. However, drawing from case studies reviewed, it is difficult for the committee to build credibility and be recognized by the community they serve, often because of complaints of lack of transparency in how individual committee members are hand-picked or appointed.

An important method to increase legitimacy in a committee is to foster group ownership and a sense of collective responsibility for the results by ensuring transparency of committee activities and decisions to the broader community. Also, longer-standing committees or long-term members tend to increase their credibility in their communities over time (Baracol 2005). In the process of recognizing and including stakeholders, if citizens do not feel that their interests are well-represented in the committee, they may not feel ownership of the decisions of the committee, decreasing its legitimacy and authority. At the same time, a group representing various interests strengthens recommendations made to an agency or decision-maker.

Other Issues of Relevance to Environmental Justice

Participants in an advisory committee often believe that success of the process is conditional on their recommendations being implemented. Yet, troublingly, once a committee reaches consensus, idealist and social justice views are often the first sacrificed in lieu of a pragmatist viewpoint and concluding solution. Research has shown

a high level of satisfaction from participants for their engagement in a highly participatory planning and learning process, but a worrisome “decreased salience of social justice and environmental concerns” (Pelletier 2000). Satisfaction and consensus during public participation processes is thus an inadequate measure of the degree to which diverse values and interests are incorporated by the process and the level of environmental justice in the outcome.

Tools in Action #10: Advisory Committee, Philippines

The importance of agriculture in the Philippines economy, in terms of GDP, exports, and employment, urges the government to enact a stakeholder-based process that will effectively legitimize both its domestic economic policies and its international economic commitments, to international bodies such as the WTO. By a Special Order from the Secretary of the Department of Agriculture (DA), the Task Force on the WTO Agreement on Agriculture (Re)negotiations (TF-WAR) was established amidst public clamor led by farmers, organizations and industry groups, for transparency and representation in formulating the Philippine negotiating position in a new round of WTO talks. The task force consists of twenty-eight representatives from farmer groups, industry associations, business federations, non-government organizations, people’s organizations and other relevant government institutions and agencies. The group is chaired by DA Assistant Secretary for Policy and Planning, with an elected private-sector vice chair, and reports to the DA Secretary.

Four years later, in 2002, another Special Order called for the formation of a core group. TF-WAR members who had some technical competence, and more importantly, good knowledge of a key sector, were invited to join the core group as permanent representatives. Their representation is voluntary, but requires a high level of commitment to regular meetings and to being “on call,” having the ability to convene on short notice, even attend real time meetings with offices in Geneva. Though they are permanent representatives, individuals do not represent a particular sector or interest and are required to remain objective.

The creation of the TF-WAR is unique in that it involves stakeholders from the very beginning and throughout entire negotiations, giving them a central role on issues of national significance and redefining the traditional consultative process. Regular meetings, direct consultation with stakeholders, workshops for additional analysis, and a commitment to providing any required technical research are key characteristics in the TF-WAR process. Any recommendations produced by the group must be by consensus, and if one can not be reached, the issue is examined in more detail by the core group, who will try to balance opposing views. Between 1999 and 2005, 5 proposals have been sent from the task force to the DA Secretary, none of which have been rejected by the Secretary, Cabinet on Trade and Related Matters, or the president.

The existence of the TF-WAR strengthens the recommending authority of the DA Secretary and further legitimizes the mandate of the president. The group ensures the continuing and institutionalized participation of stakeholders, an informed, balanced and credible negotiating position for the Philippines in WTO talks, increased transparency and a neutral arena with equal access to all stakeholders. The ongoing commitment to the task force ensures and builds credibility for members, broad dissemination of information domestically and internationally, and timely communication. However, because all stakeholders must be consulted, the process is inherently tedious and slow, and also, being a voluntary position, some groups have not been represented or representation is uneven, especially in the smaller core group. For the core group, there is still limited technical expertise and training that may be insufficient to address all issues, and there is an overall limitation in resources. Additionally, lack of a feedback mechanism, especially within the TF-WAR, limits its ability for improvement. However, even with its

limitations and constraints, it has proved that stakeholder participation in the trade negotiations process is an effective method of accurately and effectively determining and utilizing the insights, concerns and ambitions of citizens in the context of a developing country. As one observer notes, “It is cost-efficient, effective and gives flesh to real democratic governance in action.”

(Source: Baracol, 2005)

Tool Summary #5: Citizen Advisory Committees

Time	Human Resources	Funding	Knowledge
<ul style="list-style-type: none"> Time-intensive process. 	<ul style="list-style-type: none"> High, requires facilitation and logistical support. 	<ul style="list-style-type: none"> High, staffing and research, as well as travel expenses and per diem for voluntary members. 	<ul style="list-style-type: none"> High, requires facilitator with technical knowledge.
Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> Low, depending on the process of selection, but many additional barriers to participation. 	<ul style="list-style-type: none"> Potentially high, depends on the facilitator and breadth of represented interests. 	<ul style="list-style-type: none"> Variable, based on pre-set decision-making authority given. 	<ul style="list-style-type: none"> High, members often hand-picked for expertise.

6. Citizen Juries

Overview

Citizen juries are multi-day events that allow participants to engage with experts to learn and deliberate about a specific issue. They were first developed in the United States and Germany in the 1970’s and have been applied to a wide range of sectors (Kenyon, et al. 2003). Participants are selected to be representative of the population that will be impacted by the issue being discussed. Expert witnesses are brought in for the event to provide participants with information and to answer questions posed by the group. Smaller groups may be formed during the event for discussion purposes (Slocum 2003). The outcome of a citizen jury is a set of recommendations, based on deliberations between participants, that is provided to decision-makers.

Contexts/sectors where used

Citizen juries provide an opportunity to educate a small group of citizens about an issue. Given the small group size, participants have the opportunity to gain a deep understanding of the issue at hand (IAP2 2000). They are most effective in situations where officials are seeking recommendations that will be seen as representative of the opinions of the general public and want to provide educational and participatory

opportunities. They can also be used to arbitrate between competing interests (Slocum 2003). Citizen juries have been used in various contexts on a wide variety of environmental issues, although water and watershed management appeared to be the most common policy focus of citizen juries, as is highlighted in the case studies in this section. They are most commonly used in Australia, the United States, and Europe. Citizen juries are not commonly used in developing countries (Kenyon, et al. 2003), though they have been tried in at least India and Brazil (Slocum 2003). This is possibly because of the high capacity and resource requirements necessary to hold a citizen jury.

Tools in Action #11: Citizen Jury, Australia

The Department of Environment and Climate Change, New South Wales Government held a citizen jury in 2001 to discuss pollution prevention in order to improve water quality at Bronte Beach. The citizen jury was held as part of a wider public education and participation campaign. Seventy residents applied to participate in the process after being recruited through a variety of media and community organizations. Fifteen participants were selected from this pool to participate in a three day event. During the citizen jury, jurors were provided with briefing materials, presentations by expert witnesses and opportunities to question them, as well as group deliberation. Over 50 recommendations were produced by the jurors. The recommendations “prioritized integrated solutions to stormwater pollution, involving the community, council, businesses, visitors, and state government agencies. They emphasized source control approaches, especially in the areas of community education, participation and urban design and statutory planning controls.” The recommendations were unanimously accepted by the Waverley council and received wide community and political support

(Source: New South Wales Government, 2008).

Capacity Requirements

Time

Citizen juries require significant amounts of preparation and resources. Organizers should plan on dedicating four to five months for preparation and follow up on the event, which is typically four to five days long (Slocum 2003). However, shorter processes can be used. In the case studies presented in this section, Australia held a three day event and Estonia held a two day event.

Human Resources and Funding

In order to be effective, the organizing body must have the capacity to complete the preparatory steps and to engage experienced facilitators as well as qualified experts to serve as ‘witnesses’ during the jury. Focus groups can be held prior to the citizen jury to gain information on the opinions and awareness of the relevant issues in the target population. Expert witnesses must be invited and prepared for the event, and a skilled facilitator is needed to moderate discussion. Supporting documents and materials must also be assembled to provide jurors with background information on the issue and options

for recommendations. A selection process must be conducted to find a representative sample of citizens to participate as jurors.

Because citizen juries are multi-day events, food and possibly accommodations must be provided for participants, witnesses and support staff. Per diems to compensate for lost wages may be necessary. Witnesses may also need to be given an honorarium for their participation. The greatest expense in a citizen jury is the staff time required to prepare for and run it (Slocum 2003). In at least one case in Australia, participants in a citizen jury on improving water quality in the Bremer River catchment area paid a nominal participation fee to help defray costs. However, such a strategy would undeniably favor more affluent citizens and could have significant repercussions on the tool's inclusiveness (analyzed further below).

Education and Knowledge

Extensive information is given to jurors throughout the process to put all participants on equal footing in terms of knowledge about the issue of focus. Therefore, no special expertise or education level is necessary to be able to participate in a citizen jury. In communities where multiple languages are spoken, translation service and multi-lingual materials may be needed in order to include a truly representative sample.

Given the low level of topical knowledge required of jurors at the outset, the onus to provide that knowledge through the process falls to those facilitating the citizen jury. This is done by obtaining expert witnesses who are well-versed in the issues and can provide accurate information on the area of focus to participants. Facilitators must also have sufficient experience to be able to maintain an environment conducive to deliberation, which could include managing potentially difficult group dynamics and ensuring that all participants have the opportunity to be heard. It is not necessary for the coordinators of the process to have special technical knowledge of the issue being discussed; however, they need to be able to skillfully manage the participant selection process, logistics for the event, and engage witnesses and facilitators.

Implications for Environmental Justice

Inclusion

Citizen juries aim to select a representative sample of the population to serve as jurors; however, there are a few pitfalls that organizers should be aware of. During a citizen jury, the participants are stand-ins for the broader population that will be affected by the issue under discussion. Depending on the selection process used, this can be achieved to varying degrees. One common way to select jurors is to put out a call for applications and then select a representative sample from the applicants, such as was done in the Bronte Beach, Australia case. Though the random selection process would not intentionally exclude people within the population sampled, there is a risk of self-selection if applicants are used as the population base from which to select jurors. Another way to select jurors is to conduct a random survey of registered voters or official jury pool, as

described in the Estonia case. If voter/juror registries are used, those who are not registered to vote will be excluded. Some groups such as youth, ex-convicts, and those without legal citizenship are often formally ineligible for voting. Meanwhile, many other traditionally marginalized groups – for example, ethnic minorities, the illiterate, the landless, and women – may have lower levels of registration even if technically eligible to register.

A small number of jurors are selected, typically between 12 and 25 (Kenyon, et al. 2003). Generally, in an effort to obtain a “representative” cross-section of society, a balance is sought among jurors with respect to variables such as age, highest level of education attained, gender, race, and geographic location (Slocum 2003). The small number of participants means that jurors can only be ‘symbolically’ representative of the wider population (Kenyon, et al. 2003), although the random selection of participants can improve the credibility of the process (Slocum 2003).

In the case studies examined, there was no deliberate effort to ensure the inclusion of marginalized groups or those who have traditionally borne the greatest environmental burdens, as participants are randomly selected. This does not necessarily mean that citizen juries cannot achieve environmental justice, however. If the groups are truly representative of the population affected, then all groups should have an opportunity to meaningfully participate and give voice to their concerns. However, if the marginalized are not actively sought out and included in the jury, and if their voices are not brought out during deliberation, there is a risk that deliberative injustices will be perpetuated by recommendations made by the jury.

Interaction

Given the deliberative nature of the tool, those who are more comfortable expressing their opinions in front of a group of people will be at an advantage. This advantage can be minimized through skilled facilitation, but great care must be given to the dynamics of the group to ensure that those who are more vocal do not dominate discussions. Citizen juries will work best in cultures that are open to adversarial forms of deliberation and have longstanding democratic traditions, such as the US and Australia. Some cultures that are consensus based or have strict hierarchies may not feel comfortable using a format that encourages opening questioning of experts or deliberation to advocate for personal opinions that may not be shared with others in the group. This could partially account for the reason the tool has been used so little in developing countries to date.

Empowerment

Citizen juries are ‘always non-binding with no legal standing’ (IAP2 2000, 29). However, when officials engage participants for a citizen jury, they should be prepared to act on the recommendations that result from the process or explain why they cannot (Slocum 2003). In the cases analyzed, the recommendations presented in the citizen juries were well received, as is described in the Bronte Beach, Australia case. The feedback gained from the jury can be used to identify weaknesses in proposed plans and to gauge the reaction of

the general public (IAP2 2000). This can be very useful to government agencies and can lead to more effective and efficient project implementation.

The case studies encountered on citizen juries focused on the process and did not provide detailed information on how or if the recommendations that came from the processes were implemented, nor the resulting impact. However, from the Australia example, the recommendations for Bronte Beach were well received by the local council and they received wide community and political support.

The format of a citizen jury is designed to enable citizens to have a voice in a decision-making process; thus it is potentially an empowering process for its participants. However, equal empowerment among participants is dependent upon the quality of information given and the skill of the facilitator in ensuring that all participants are able to have an equal voice in the process. The ground rules for the jury – e.g., whether jurors must reach consensus on an issue or make their final recommendation by majority vote – can also enormously influence the empowerment of individuals representing minority interests within the jury.

Citizen juries can be used to educate small groups of citizens about a particular issue due to the extensive focus on sharing information through written materials and witness presentations. In one citizen jury conducted in New South Wales, Australia, a pre- and post- questionnaire was given to jurors to determine access to knowledge. By the end of the citizen jury, prior education was no longer differentiated by participants, because jurors received equal access to knowledge about the issue (Australia Government 2001). In the Bronte Beach, Australia case, the citizen jury was held as part of a broader public education and participation campaign. This is another way to reach out to potential jurors to ensure they have the requisite information to fully participate in the process.

Citizen juries are designed to be single events, where participants go through a process together and then coordinators take the recommendations from the jurors into consideration. Therefore, there is limited opportunity for ongoing influence or engagement. However, it is possible that some jurors may become passionate about the issue and continue to find opportunities to be involved outside of the citizen jury. Though this could be a positive outcome, it will only happen in limited cases.

Though the jurors who participate in the process are empowered through the citizen jury, the general public they represent are not. In the Australia case, the citizen jury was held as part of a larger education campaign; however, the broader public was not involved in decision making processes. Those who do not participate in the jury may not feel that their voice was included in the process. A sample that represents demographic characteristics may not fully represent the diversity of opinions that exists throughout the target area.

Other Issues of Relevance to Environmental Justice

From the examples seen in the case studies, jurors made environmentally responsible decisions and sought to balance social, economic and political concerns. For example, in Estonia, the jurors favored the development of water transportation on the Emajõgi River but wanted to ensure that this development took the local environment and society into consideration. However, it is not guaranteed that citizen juries will result in better outcomes for the environment. The state of Minnesota in the United States convened a citizen jury to determine the acceptability of congestion pricing on a major highway. The jurors rejected the idea of congestion pricing, though it was later adopted by the State (Munnich 2006).

Tools in Action #12: Citizen Jury, Estonia

The River Dialogue pilot project was conducted by the Linköping University, Free University Amsterdam and Peipsi Center for Transboundary Cooperation in order to test participatory approaches to environmental decision-making with funding from the European Union 5th Framework Programme. A citizen jury was held in 2003 to discuss water transportation on the Emajõgi River. 700 invitations and questionnaires were sent to randomly selected addresses to participate in the citizen jury. Out of the 6% of people who responded, 14 jurors were randomly selected from the river region to participate in the two day event. It is hypothesized the rate of return was so low because the tradition of public participation is new in Estonia. During the citizen jury, jurors listened to presentations from witnesses from various sectors and stakeholder groups and were able to ask questions. After the presentations, the jurors were broken into small groups to compile their recommendations for transportation on the river. The recommendations showed that the jurors were in favor of developing water transport, but considered it ‘extremely important to consider the natural environment and the interests of local people’

(Source: IWRM, 2008).

Tool Summary #6: Citizen Juries

Time	Human Resources	Funding	Knowledge
<ul style="list-style-type: none"> High, four to five months are recommended for a two to five day event. 	<ul style="list-style-type: none"> Extensive support staffing, expert witnesses and skilled facilitators are required. 	<ul style="list-style-type: none"> Significant funding is required. 	<ul style="list-style-type: none"> High capacity requirements for support staff, witnesses and facilitators.
Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> Low, due to small group size. 	<ul style="list-style-type: none"> Highly interactive due to design of deliberation processes. 	<ul style="list-style-type: none"> High empowerment is possible for <i>individual participants</i>; however, general population will not be empowered due to small group size. 	<ul style="list-style-type: none"> Low, no specialized education is required as there is great opportunity for knowledge exchange through process.

7. Referenda

Overview

The referendum – or direct popular vote – is direct democracy in its purest sense. In the West, it has been in place as a mechanism to reach decisions on civic issues since at least the early 1300s (Tallian 1977). Direct ballot measures on a range of policy issues are defended as a means to ensuring government accountability. Implicit is the assumption that citizens are more in touch with “the public interest” and less vulnerable to corruption by powerful special interests than elected officials.

Nonetheless, the danger of the referendum leading to a “tyranny of the majority” has been debated since the advent of democratic theory (Rosenberg 1984). In the words of James Madison, one of the authors of the US Constitution (which provides only for representative democracy at the federal level), decision making through direct democracy is “incompatible with personal security or the rights of property” due to the absence of any mechanism “to check the inducements to sacrifice the weaker party or an obnoxious individual” (cited in Rosenberg 1984). In the US, direct popular voting on land use zoning decisions has been found to lead to economic and racial exclusion. As one legal analyst notes:

Elimination of the representative feature of local government legislative decisionmaking ... ironically ... silences the articulate presentation of views on matters of public interest and removes the need for a decisionmaking body to defend coherently the positions taken (Rosenberg 1984).

In light of these critiques, the implications of this participatory decision-making mechanism for environmental justice are complex and context-specific, as analyzed below.

Contexts/sectors where used

Referenda are used in environmental decision-making in both developing and developed countries, although their prevalence and the range of sectors and types of decisions they are used in was found to be significantly higher in developed countries.

In many OECD countries, ballot initiatives are not only routine, but are even a legal requirement for certain types of decisions. In many jurisdictions of the US, local land use zoning changes must be put to direct popular vote (Rosenberg 1984). Countries that utilize referenda generally have institutionalized processes by which interest groups place other issues – including environmental issues – on the ballot (e.g., submittal of a sufficient number of signatures requesting an initiative be put forth for direct public consideration).

In the developing world, meanwhile, formal referenda on environment-related decisions seem to be largely a new phenomenon.⁶ Case studies encountered from Peru, Argentina, Guatemala and India suggest that referenda are used on an exceptional basis, only within the past few years, and only at the local or district level. Based on these case studies, their use in environmental arenas is essentially as a political organizing tactic by local or district-level governments to demonstrate majority local opposition to decisions being made at state or federal levels about the siting of industrial facilities, mines or infrastructure development projects with significant environmental and social impacts.

Tools in Action #13: Referendum, Peru

The community of Tambogrande in the agricultural valley of San Lorenzo, province of Piura is sitting on top of an estimated \$1 billion of gold. The Canadian mining company Manhattan Minerals began making plans in 1998 to develop a \$315 million open pit mine in the area, which would entail the relocation of about 8,000 of Tambogrande's residents and significant environmental impacts.

Community members organized against the mine proposal, arguing in particular that water contamination from the mine would threaten their agricultural livelihoods. Tambogrande's mayor was eventually convinced to take action. He first organized a petition against mining development, collecting signatures from over 75% of the community's voting population and delivering them to Peru's Congress to demand action against the Ministry of Energy and Mines, which was reviewing the company's application for mine development. The petition was not taken seriously, however, due to lack of perceived legitimacy.

The mayor responded by organizing a more formal referendum in June 2002. The Canada Rights and Democracy Center observed the process and reported that 94% of the voters voted in opposition to the mine, with 73.2% of the voting populace casting a ballot. Manhattan Minerals critiqued the outcomes, arguing that citizens lacked knowledge of the likely environmental impacts, as the EIA was not yet publicly available. An independent analysis of the EIA conducted and made public in advance of the referendum by American hydrologist Robert Moran, however, concluded that the mine's likely impacts would indeed be severe.

The referendum was not technically legally binding, but nonetheless likely factored into the Ministry of Energy and Mines's decision two years later to table the project (although the official reason given was the sponsor's failure to comply with financial requirements).

(Sources: Muradian, et al., 2003; Boyd, 2002; Haarstad and Fløysand, 2007; de Echave, undated)

Capacity requirements

Time

Referenda are not as time-intensive *per se* as many other participatory tools. In the case studies reviewed, voting took place in one day. Time required for polling station set-up and vote counting depends on the number of votes cast and the human resources

⁶ Many indigenous cultures may also have local decision-making styles relying on direct voting and majority-rule principles, but this report focuses only formal government decision-making contexts.

available. The real variable, however, is the lead up time for public education and campaigning, which can last several months, depending on the decision at hand, its contentiousness, the size and education level of the constituency, and the capacity of local interest groups to undertake campaigning.

Human Resources and Funding

Given their involvement of generally far more people than other participatory methods, executing an inclusive, credible referendum can require substantial resources. In case studies from the developing world, information was limited on the source or amount of funding for referenda. However, in the case highlighted above of a referendum organized by the community of Tambogrande in Peru against the siting of a gold mine in their community, funds were donated by Oxfam UK and more than a dozen international human rights organizations (Boyd 2002). It is likely that in other cases as well, external NGOs or other interest groups assisted local governments with funding.

The overall costs of a referendum primarily relate to human resources. For results to be taken seriously by decision makers and the voters themselves, adequate staffing to execute an efficient and well organized referendum is critical. This is even more critical in developing country contexts where widespread voting fraud is frequently the norm. Aside from staffing of the actual polling and ballot counting process, security personnel at polling places may also be needed to ensure the safety of voters, particularly when the ballot issue is locally controversial. Independent observers are often used to certify the legitimacy of the voting process.

Education and Knowledge

Referenda, more than other participatory tools, require participants to possess a high level of education on an issue *prior to* the execution of a referendum, as the voting process itself does little to educate voters. This is *critical* to ensuring, foremost, the perceived legitimacy of a voting outcome. At a minimum, basic literacy is required of voters, as the absence of a paper record showing how citizens voted only opens the door to accusations of fraud. Substantive knowledge of the issue at hand by the voting populace is equally essential, which invariably entails significant public education efforts prior to the referendum by its sponsor (as well as opposition groups). In Tambogrande, Peru, the mining project sponsor attempted to discredit referendum results showing community rejection of the proposed mine by arguing that community members lacked sufficient knowledge to make reasoned judgments on the project's impacts (Boyd 2002). Higher citizen education levels have also been shown to lead to more environmentally positive ballot outcomes in referenda in the US and Switzerland (Bornstein and Thalmann 2008). Conversely, when citizens lack understanding of a policy issue, they are less likely to vote in its favor, and will instead follow cues from the popular press and campaign arenas – which in the case of environmentally positive ballot initiatives, dealing often with technical concepts, can be a significant hurdle (Zaller 1992, Sciarini, et al. 2007).

Participant education – in the form of issue awareness and literacy – aside, the degree to which the language employed on a ballot is understandable to voters can significantly influence levels of informed participation. This is a challenge even in developed countries with near universal literacy. A review of legally required referendum-based land use zoning decisions in Cuyahoga County, Ohio, for example, found that the language used was so confusing that it was “occasionally incomprehensible” and conducive only to “the most superficial understanding of the question presented,” significantly undermining even an interested and educated voter’s ability to make a reasoned decision about an issue (Rosenberg 1984).

Implications for Environmental Justice

Inclusion

Referenda are theoretically inclusive of all voting members of a given population. However, the degree to which this encompasses traditionally disenfranchised or marginalized segments of society – such as women, immigrants, ex-convicts, non-landowners, the illiterate, or the disabled – varies by country and context. Even where these groups are legally eligible to vote, they are frequently under-registered as compared to more powerful and educated segments of society.

Inclusion further depends on making sure all registered voters can actually cast a ballot on the day of the referendum. This requires guaranteed time off from work or other obligations, as well as accessibility of the polling site. As noted already, security is frequently necessary, particularly in developing country contexts around issues that are locally contentious, to make sure voter intimidation and/or violence does not occur.

Interaction

The act of voting is not generally interactive *per se*, as confidentiality of individual voter choices is a fundamental tenet of democratic processes. However, in the philosophical sense, voting is the essence of democracy – government by, for and of “the people” – in action. In the Tambogrande mining case, the local mayor supported the referendum because he thought “it would channel local tensions and frustrations into a positive expression of grassroots democracy and provide an answer to the mining question in his town” (Boyd 2002). In other words, he saw the activity as an interactive one.

Empowerment

By definition, referenda empower the majority. The degree to which this majority constitutes or includes *marginalized groups*, however, depends on scale. National referenda entail classic “majority rules” democracy pitfalls that reward the majority at the expense of minority groups. With respect to environmental decisions, this frequently translates into environmental inequity and injustice. Yet, the emerging use of referenda in developing countries is precisely to elevate the voice of marginalized groups vis-à-vis higher level decision makers. Even when a referendum’s outcome does not carry legal

teeth, its value as an organizing tool can empower a community engaged in an environmental justice battle by granting increased legitimacy to a cause through a strong show of local support against a harmful project. In the case of a September 2008 referendum held by 22 farming communities in Maharashtra, India, the referendum's outcomes – a “no” to a massive proposed industrial development project – have been reported as highly empowering, at least in the big picture sense. The case is precedent-setting in India, and will likely influence how impasses over land acquisition for large scale development projects across the country are treated in the future (The Access Initiative 2008).

Nonetheless, it is important to recognize that empowerment of marginalized groups via referendum depends on their capacity to organize public support in the first place in favor of their cause, within an officially recognized decision-making territory. That is, referenda only work in favor of the marginalized when the source of marginalization is external to, and larger than, the voting district. Truly disempowered groups constituting a minority *within* a community would meanwhile be unlikely to persuade even local decision makers to put a decision to public vote, much less convince the local voting populace of the importance of their issue, without substantial help from more powerful allies.

In the cases analyzed, outside support to marginalized communities fighting massive development projects was frequently provided by international NGOs. This support helped to “level playing field” for local marginalized actors vis-à-vis the national government. Yet, one analysis of the Tambogrande case suggests that receiving support from outsiders can at times end up tying hands locally rather than empowering local voices, in the case that international agendas differ from local agendas. In the Tambogrande case, the re-scaling of the community's “opposition narrative” through the referendum – while empowering the community – may have also “necessitated a rearticulation of political claims to accommodate hegemonic discourses at the national and international scales” (Haarstad and Fløysand 2007). The implication is that the community may later find it harder to backtrack on the ideological “hard line” pushed by international NGO supporters and negotiate a settlement with the mining company, in the case that the mine's development becomes a *fait accompli*. While no evidence exists to suggest that this in fact would result, local decision makers should nonetheless weigh this consideration carefully before deciding whether to accept outside funding to pursue a referendum.

Other Issues of Relevance to Environmental Justice

The majorities empowered by direct democracy can, at times, represent marginalized groups and their interests, as shown above. Yet direct democracy can also polarize a situation by dividing a population into winners and losers. It also cuts short meaningful debate about the complexity of an issue by boiling each decision down to simple yes/no language and rhetoric, which in turn stifles consideration of possible creative solutions that could be agreeable and beneficial to all sides. Institutionalizing requirements for referenda can furthermore undermine representative democratic structures (Rosenberg

1984). In developing countries, where so-called democratic institutions are frequently new and fragile to start with, sacrificing representative governance in favor of direct democracy could thus result in unforeseen negative implications on long term procedural and distributional justice.

Tools in Action #14: Referendum, India

The district of Raigad, in the western Indian state of Maharashtra, is slated for development of the India's largest Special Economic Zone (SEZ): the 3400 Hectare Maha-Mumbai SEZ. In the referendum held on September 22, 2008, a majority of over 6000 farmers from 22 agricultural communities slated to lose lands for the creation of the massive SEZ – which will be home to a 4000MW thermal power plant, export-oriented industrial facilities and manufacturing plants, and related infrastructure – expressed their unwillingness to forfeit their lands.

Prior to the referendum, local farmers organized and, with help from the Legal Initiative for Forest and Environment (LIFE), attempted to appeal government approval of the proposed power plant for its purported failure to comply with EIA requirements. The project site is a legally protected estuary and coastal zone, and LIFE argued that the government had not given adequate consideration to public concerns expressed during the formal EIA public hearing process. When the appeal failed and the project continued to move forward, local protests resumed, prompting the District Collector (the highest government officer of a district) to organize the referendum.

The referendum covered only a portion of the villages in the area facing land eviction. Yet the outcomes appear to have been highly empowering at least to the majority of its participants who voted against the SEZ. Reliance Industries cannot get final approvals for construction until land is acquired, and the Commerce Ministry indicated it will not grant approval if it finds land has been acquired "compulsorily." Through the referendum, land owners in the 22 participating villages have effectively consolidated their opposition voices, strengthening their lobby considerably against Reliance Industries. The case is still developing, but in the meantime it is being called a first of its kind in India, and will likely to influence how impasses over land acquisition for mega-development projects are treated in other parts of India into the future.

(Sources: The Access Initiative, 2008; Nair, 2008; Press Trust of India, 2008)

Tool Summary #7: Referenda

Time	Human Resources	Funding	Knowledge
<ul style="list-style-type: none"> ▪ Referendum itself not time intensive, but educating voters beforehand generally is. 	<ul style="list-style-type: none"> ▪ Significant human resources required, both for campaigning and to execute referendum. 	<ul style="list-style-type: none"> ▪ Main costs to government are for human resources, although campaigning costs can be significant. 	<ul style="list-style-type: none"> ▪ Low degree of knowledge/skills required of event organizers.
Inclusion	Interaction	Empowerment	Education
<ul style="list-style-type: none"> ▪ High, assuming broad enfranchisement of population and accessibility/security of voting place. 	<ul style="list-style-type: none"> ▪ Not interactive. 	<ul style="list-style-type: none"> ▪ Referenda empower the majority, by definition. ▪ Empowerment of marginalized groups depends on scale of decision making. 	<ul style="list-style-type: none"> ▪ High level of education required of voting population.

III. Conclusions

The effectiveness of a participatory tool in environmental decision-making can be evaluated by the extent to which it enables the inclusive and meaningful engagement of key stakeholders and allows participants' inputs to influence the decision outcome. Given the focus of this report on the preparatory phase of policy and project development, it is not possible to comment extensively on the quality of outcomes achieved for the environment. Theoretically, the tools presented in this report (notice and comment, public hearings, focus groups, participatory workshops, citizen advisory committees, citizen juries and referenda) are designed to enable average citizens to influence decision-making processes. In our analysis of 59 case studies, it was found that in practice, many participatory processes do not achieve this, mainly because the opportunities to incorporate participant feedback are limited. As described in the preceding sections, notice and comment, public hearings and focus groups in particular do not necessarily result in influencing the final outcomes. Though participatory workshops, citizen advisory committees, referenda and citizen juries have greater potential for greater participatory outcomes, they require sufficient capacity and resources and openness to inclusion in order to be effective.

Key Findings

For each of the tools described, the overall input requirements (funds, time, human resources, knowledge of organizers) was found to be high for citizen advisory committees, participatory workshops, citizen juries, referenda and focus groups, and low by comparison for public hearings and notice and comment. Not surprisingly, the more resource intensive tools were found to be more prevalently used in developed countries. As the case studies revealed, the majority of cases of public participation in developing countries occur with donor funding. To maximize results from participatory tools, governments need to be prepared to invest significant amounts of time and human resources. The following table summarizes the input requirements:

Resource	Notice and Comment	Public Hearing	Focus Group	Participatory Workshop	Citizen Advisory Committee	Citizen Jury	Referendum
Funds	Low	Low	High	High	High	High	High
Time	High	Low	High	High	High	High	High
Human Resources (organizers)	High	Low	High	High	High	High	High
Knowledge (organizers)	Low	High	High	High	High	High	Low
Education (participants)	High	Low	Low	Low	High	Low	High

Procedural and distributive justice can only be achieved through public participation. However, not all participatory tools result in high levels of procedural or distributive justice. It can be seen that for notice and comment, citizen advisory committees and referenda, participants need to have a high level of education and skills to participate meaningfully. As a result, though the process may be highly inclusive, due to the high level of skills and knowledge required, certain groups, in particular the marginalized, will not be able to effectively participate. Implications for environmental justice were based on determination of how inclusive, interactive and empowering the tool was. The following table summarizes the findings for each tool. It also includes in particular the implications for marginalized groups.

Table 2: Summary of Outputs by Tool, Overall and for Marginalized Groups														
	Notice & Comment		Public Hearing		Focus Group		Participatory Workshop		Citizen Advisory Committee		Citizen Jury		Referendum	
	<i>O</i>	<i>M</i>	<i>O</i>	<i>M</i>	<i>O</i>	<i>M</i>	<i>O</i>	<i>M</i>	<i>O</i>	<i>M</i>	<i>O</i>	<i>M</i>	<i>O</i>	<i>M</i>
Inclusion	H	L	H	L	L	L	H	H	L	L	L	L	H	L
Interaction	L	L	L	L	H	H	H	H	H	H	H	H	L	L
Empowerment	L	L	L	L	L	L	H	H	H	L	H	L	H	L

O-overall, M-marginalized groups; H-high, L-low

Overall, all tools with the exception of citizen advisory committees and citizen juries rate high on inclusiveness. However, for marginalized groups, only participatory workshops are considered to be highly inclusive. Focus groups, participatory workshops, citizen advisory committees and citizen juries are all considered to be highly interactive, even for marginalized groups. Notice and comment, public hearings and focus groups are considered to be low in the case of empowering the community, whereas all other tools are high overall, and participatory workshops are high for marginalized groups as well. Therefore, overall, it appears that participatory workshops, though resource intensive, are most able to enable procedural and distributive justice, since they can accommodate participants of different levels of education and were found in practice to be highly inclusive, interactive and empowering. The other tools, in particular with respect to marginalized groups, fall short of achieving this. To ensure that distributive justice is met, all three indicators, inclusion, interaction and empowerment should be high. As illustrated in the table above, only participatory workshops, whether overall or for marginalized groups specifically, scores high in all three indicators.

Implications for Environmental Decision Making and Environmental Justice

Despite the fact that participatory tools weigh differently with respect to levels of interaction, inclusion, empowerment, and resource requirements, if done well (where there is a seriousness of purpose to actually engage the public and listen and incorporate their concerns and views), it is well worth the effort. Engaging the public in the decision making process increases ownership, helps early identification of pitfalls and encourages creative problem solving to help ease implementation.

However, to make participatory processes more meaningful for participants, governments need to be prepared to include the feedback received into the final decision or be able to provide valid reasons for not doing so. Even the tools which are considered least empowering could be made more meaningful if managed better. For example, public hearings – which rank among the lowest of the tools reviewed in terms of their potential for inclusion, interaction, and empowerment of participants – could have better outcomes if not limited to a one-time event. Once comments are received, and the organizers have decided how to incorporate the inputs, another public consultation should be held to communicate to the public the reasons for inclusion/exclusion of various comments, so that the public is aware of the next steps taken.

As highlighted in Table 2, even the most inclusive participatory tools may not be so for marginalized groups. Limitations in access to a participatory process due to transportation expenses, potential loss of wages, etc., as well as barriers due to language and low levels of formal education and literacy, result in additional challenges for marginalized groups. For environmental justice to be achieved, special efforts must therefore be undertaken to bring marginalized groups into the process.

The case studies revealed that the most empowering of the tools are also the most resource intensive, and this is a limitation that developing countries face. Due to resource constraints, public hearings are often the only realistic way that the public could be involved in a process in a developing country context. However, given that more durable and sustainable outcomes can be achieved through meaningful public participation, it may be well worth the effort to invest more resources and select a tool that would best achieve this purpose.

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Annex 1: Comparative Tool Analysis

Education- degree of education and skills participants must have beforehand in order to participate meaningfully;

Knowledge- amount of understanding, expertise and skills that coordinators and implementers need to have and provide;

Human resources- amount of staffing required;

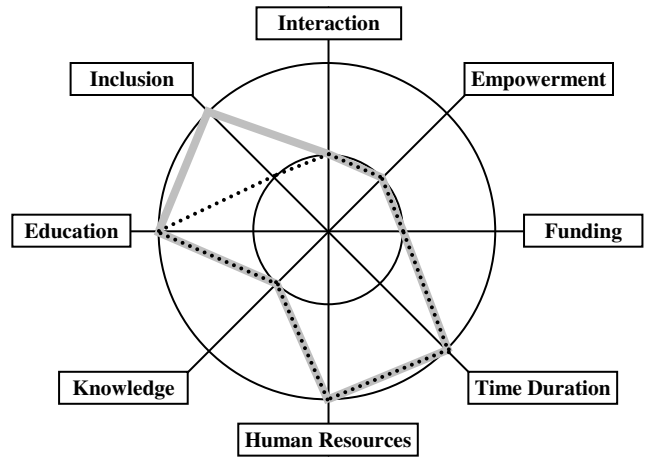
Time- duration of preparation and implementation;

Funding- amount of funding required;

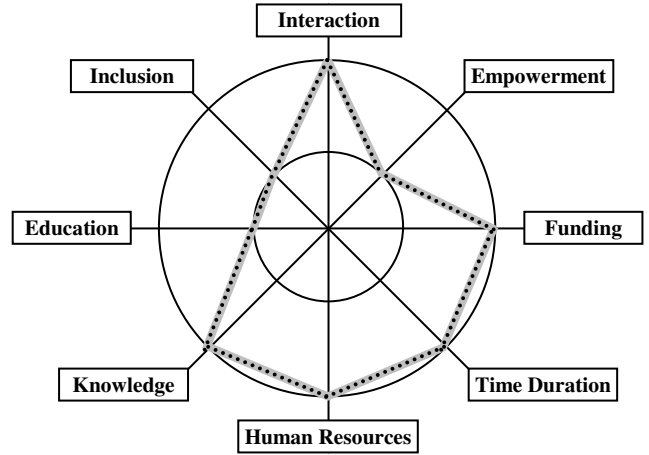
Inclusion- accessibility by all relevant stakeholders;

Interaction- deliberativeness among participants; and

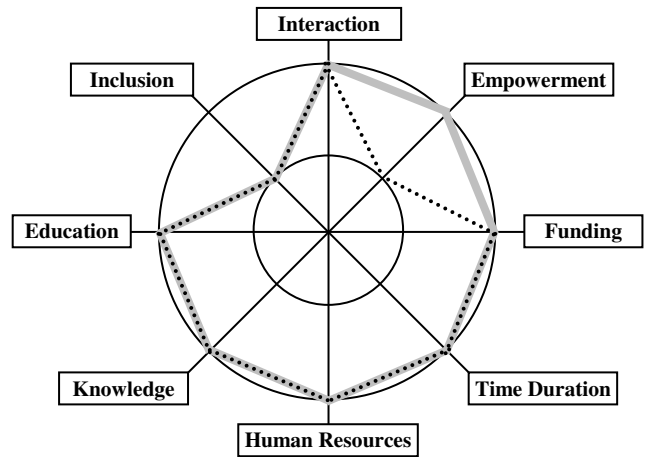
Empowerment- degree to which participants' inputs influence decision, potential for capacity building and continuity.



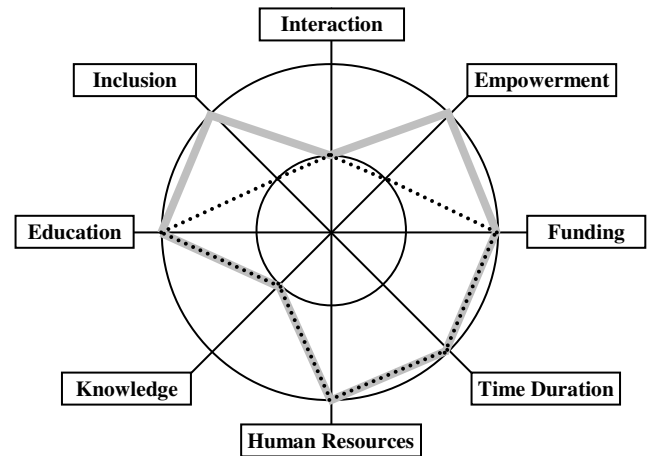
Notice and Comment



Focus Groups

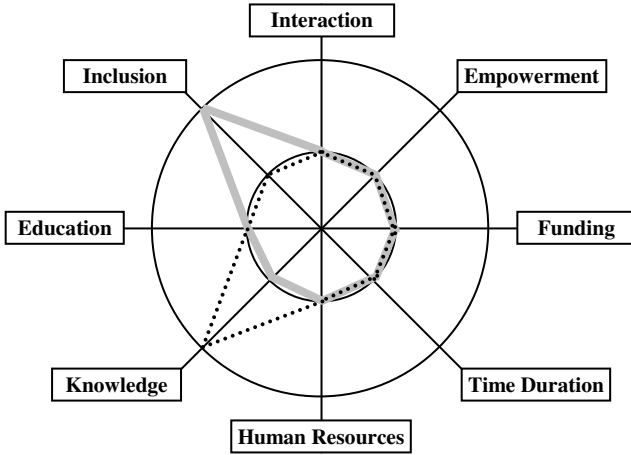


Citizen Advisory Committees

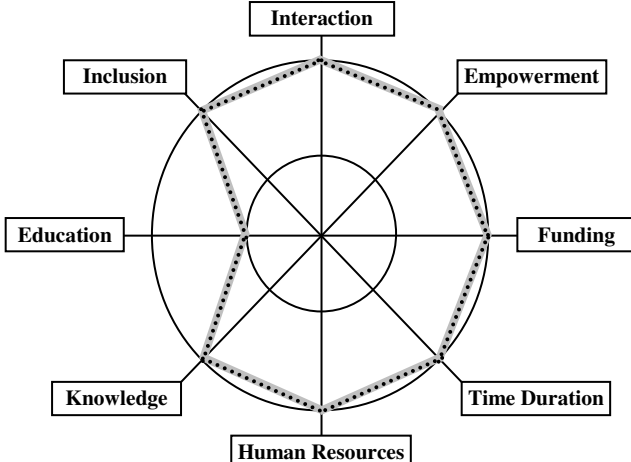


Referenda

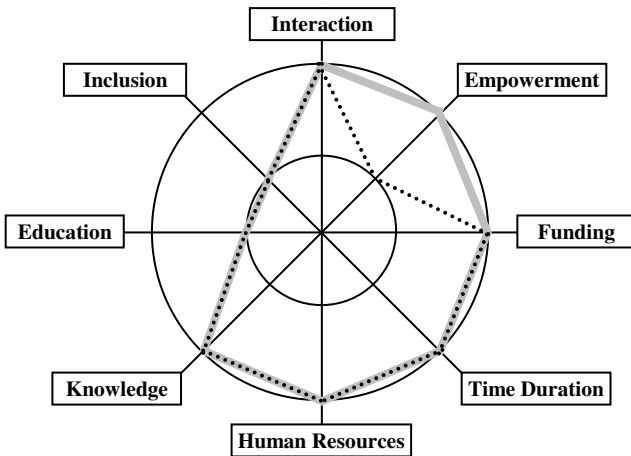
Public Hearings



Participatory Workshops



Citizen Juries



— Overall Marginalized Groups

Annex 2: Case Study Articles Reviewed

Country	Sector/task	Citation
Notice and Comment		
South Africa	Water Policy Development	de Coning, Christo and Tamsyn Sherwill. 2004. "An Assessment of the Water Policy Process in South Africa (1994 to 2003)." Gezina, South Africa: Water Research Commission.
South Africa	Water Resource Management	Burt, J., D. du Toit, D. Neves and S. Pollard. 2006. "Learning About Participation in Integrated Water Resource Management: A South African Review." Participation in Water resource management: Book One. Gezina, South Africa: Water Research Commission.
Czech Republic	Water Resources- River Basin Management Plans	Slavíková, Lenka and Jiřina Jílková. 2008. "Implementing the Public Participation Concept into Water Management in the Czech Republic – Critical Analysis." Prague: Institute for Economic and Environmental Policy.
United States	Transport – Transportation Plans	Lebanon County Planning Department. Transportation Planning Process Public Involvement Policy. Lebanon County Metropolitan Planning Organization. September 2003.
United States	Transport – Transportation Plans	Participation Plan for Transportation Planning and Justice http://www.co.bay.mi.us/bay/home.nsf/public/53334D0B32BBD8218525729E00531DB8?OpenDocument
United States	Wildlife management	Bangs, Ed, U.S. Fish and Wildlife Service Wolf Recovery Coordinator. Telephone interview. 14 November 2007. Available at: http://rlch.org/content/view/262/27/ . Fish and Wildlife Service (FWS), Interior. 2008. "Endangered and Threatened Wildlife and Plants; Designating the Northern Rocky Mountain Population of Gray Wolf as a Distinct Population Segment and Removing This Distinct Population Segment From the Federal List of Endangered and Threatened Wildlife, Proposed rule; reopening of comment period." <i>Federal Register</i> 73(209): 63926–32.
China	Local food markets	Lubbers, Jeffrey S. 2006. "Notice and Comment Rulemaking Comes to China." <i>Administrative and Regulatory Law News</i> 32(1): 5–6.
Public Hearings		
Portugal	Watershed Management	Vasconcelos, Lia T and Idalina Baptista. "The Meaning of Active Participation in Technical Arenas: Perspectives from the Portuguese Water Policy Arena. Portland, OR: 45th ACSP, October 21-24 2004.
United States (GA)	Land Use rezoning	Fleischmann, Arnold and Carol A. Pierannunzi . 1990. "Citizens, Development Interests, and Local Land-Use Regulation." Cambridge University Press: <i>The Journal of Politics</i> 52(3): 838–853.
Focus Groups		
Estonia/Russia	Water Resources Management	Sare, Margit. Testing of innovative public participation methods in water management. Peipsi Center for Transboundary Corporation, Estonia. Presentation.
Estonia/Russia	Water Transport	River Dialogue: Testing innovative public participation methods- citizens' jury and focus groups in Estonia
Participatory Workshops		
Finland	Forestry- preparation of	Public participation in Forestry in Europe and North America- 2000-Joint Food and Agriculture Organization ,International Labor

	regional natural resource plans	Organization, and Economic Commission for Europe committee on Forest technology, management and training
Switzerland	Forestry-revision of regional forestry plans	Public participation in Forestry in Europe and North America-2000-Joint Food and Agriculture Organization ,International Labor Organization, and Economic Commission for Europe committee on Forest technology, management and training
Madagascar	Forestry and Protected Area-development of conservation and research priorities	Bowles, Ian, L. Hannah, B. Rakosamimanana, J. Ganzhorn, R. Mittermeier, S. Olivieri, L. Iyer, S. Rajaobelina, J. Hough, F. Andriamialisoa, and G. Tilkin. 1998. "Participatory Planning, Scientific Priorities, and Landscape Conservation in Madagascar." <i>Environmental Conservation</i> 25(1): 30–36.
Nepal	Community forest resource management	Acharya, K.P. 2002. "Twenty-four years of Community Forestry in Nepal." <i>International Forestry Review</i> 4(2): 149–156.
South Africa	National Parks-Development of management plans	Kruger Times "Developing Park Management plans through public participation" http://www.krugertimes.com/krugernews/krugernationalparkmanagement.htm
Ghana	Privatization of water	Agyeman, K.(2007) "Privatization of water in Ghana: stopped in its tracks or a strategic pause?" <i>International Journal of Environmental Studies</i> ,64:5,525 — 536
Zimbabwe	Water Resources Management	Dube, D., Swatuk, L., "Stakeholder participation in the new water management approach: a case study of the Save catchment, Zimbabwe," <i>Physics and Chemistry of the Earth</i> Vol. 27, pp. 867-874
South Africa	Water Policy	de Coning, Christo and Tamsyn Sherwill 2004. <i>An Assessment of the Water Policy Process in South Africa (1994 to 2003)</i> . Genzina, South Africa: Water Research Commission.
Spain and Italy	Watershed Plans to combat desertification	Kok, Kasper, Mita Patel, Dale S. Rothman and Giovanni Quaranta. 2006. "Multi-scale narratives from an IA perspective: Part II. Participatory local scenario development." <i>Futures</i> 38(3): 285–311.
European Union	Climate Change Policy	Hove, S., "Participatory approaches to Environmental Policy-making: the European Commission Climate Policy Process as a case study," <i>Ecological Economics</i> Vol. 33, 2000, pp.457-472
Netherlands/EU	Climate Change Policy	B. A. van Asselt Marjolein and Nicole Rijkens-Klomp, "A look in the mirror: reflection on participation in Integrated Assessment from a methodological perspective", <i>Global Environmental Change</i> Volume 12, Issue 3, October 2002, Pages 167 – 184. Climate Options for the Long Term (COOL) description on FORUM: Science and Innovation for Sustainable Development (http://sustsci.aaas.org/content.html?contentid=668)
Thailand	Establish Local Agenda 21 plans (multi-sector)	Tonarni, Aki and Akihisa Mori. "Lessons from Implementing Local Agenda 21 in Three Cities" <i>The Journal of Environment and Development</i> . 2007; 16; 269
Portugal	Agriculture/ livestock (pig farming industry)	Rui Santos et al., "Stakeholder participation in the design of environmental policy mixes," <i>Ecological Economics</i> Volume 60, Issue 1, 1 November 2006, Pages 100-110
India	Agriculture - Program to reform share-cropping system	Janvry, Alain de. "Access to Land, Rural Poverty, and Public Action." <i>World Institute for Development Economics Research</i> . Oxford University Press, 2001. 230-303.
Citizen Advisory Committees		
Thailand	Multi-sector	Tonarni, Aki and Akihisa Mori. 2007. "Lessons from Implementing Local Agenda 21 in Three Cities." <i>The Journal of Environment and</i>

		Development 16(3): 269–289.
Ghana	Water Privatization	Agyeman, K. 2007. "Privatization of water in Ghana: stopped in its tracks or a strategic pause?" <i>International Journal of Environmental Studies</i> 64(5): 525–536.
Portugal	River Basin Management	Vasconcelos, Lia T and Idalina Baptista. 2004. "The Meaning of Active Participation in Technical Arenas: Perspectives from the Portuguese Water Policy Arena." Portland, OR: 45th ACSP.
Sweden	Water Resources Management	Jonsson, Anna. 2005. "Public Participation in Water Resource Management: Stakeholder Voices on Degree, Scale, Potential, and Methods for Future Water Management." <i>AMBIO: A Journal of the Human Environment</i> 34(7): 495–500.
South Africa	Water – establishment of water policy and law	de Coning, Christo and Tamsyn Sherwill. 2004. "An Assessment of the Water Policy Process in South Africa (1994 to 2003)." Genzina, South Africa: Water Research Commission.
Zimbabwe	Watershed Management	Derman, Bill and Anne Ferguson. 1999. "Against the Flow: Activism and Advocacy in the Reform of Zimbabwe's water sector." <i>Culture and Agriculture</i> 21(3): 3–9.
Mali, Mauritania, Senegal, Guinea	Water	Sylla, Mamadou Mactar. 2006. "The Role of Basic Community Organisations in the Management of the Natural Resources of a Transboundary Water Basin – The example of the Local Coordinating Committees of the Senegal River Development Organisation." In Anton Earle and Daniel Malzbender (eds.), <i>Stakeholder Participation in Transboundary Water Management – Selected Case Studies</i> . Cape Town, South Africa: African Centre for Water Research, 35–51.
Mozambique	Water Management	Tapela, Barbara Nompumelelo. 2006. "Stakeholder Participation in the Transboundary Management of the Pungwe River Basin." In Anton Earle and Daniel Malzbender (eds.), <i>Stakeholder Participation in Transboundary Water Management – Selected Case Studies</i> . Cape Town, South Africa: African Centre for Water Research, 10–34.
Thailand	Irrigation Management	Davidson, Pål Arne. 2006. "Between Rhetoric and Reality – A Critical Account of Stakeholder Participation in Decision Making in the Mekong River Basin." In Anton Earle and Daniel Malzbender (eds.), <i>Stakeholder Participation in Transboundary Water Management – Selected Case Studies</i> . Cape Town, South Africa: African Centre for Water Research, 131–155.
United States (AZ)	Land/Watershed Management	Moote, M. A., M. P. McClaran, and D. K. Chickering. 1997. "Theory in Practice: Applying Participatory Democracy Theory to Public Land Planning." <i>Environmental Management</i> 21(6): 877–889.
Nepal	Parks – community based management of parks	Mehta, Jai N. and Joel T. Heinen. 2001. "Does Community Based Conservation Shape Favorable Attitudes Among Locals? An Empirical Study from Nepal." <i>Environmental Management</i> 28(2): 165–177.
Australia	Protected Area Management Plan	Moore, Susan A. 1996. "Defining 'Successful' Environmental Dispute Resolution: Case studies from Public Land Planning in the United States and Australia." <i>Environmental Impact Assessment Review</i> 16(3): 151–169.
French Guyana	Mining- improve environmental management	Graybeal, Frederick T. 2001. "Evolution of Environmental Practice during Exploration at the Camp Caiman Gold Project in French Guyana." In Bowles and Prickett (eds.), <i>Footprints in the Jungle: Natural Resource Industries, Infrastructure, and Biodiversity Conservation</i> . Oxford, UK: Oxford University Press, 222–233.
United States	Environmental	Nalder, Eric. 2005. "Lawmakers OK citizens' oil-spill council:

(WA)	Remediation	Independent panel was opposed by industry." Seattle Post-Intelligencier 22 April 2005.
United States (DC)	Transportation Planning	"The TPB Citizens Advisory Committee." Metropolitan Washington Council of Governments. Available at: http://www.mwcog.org/transportation/involved/cac.asp .
United States (NC)	Hazardous Waste Management	Lynn, Frances M. 1987. "Citizen Involvement in Hazardous Waste Sites: Two North Carolina Success Stories." Environmental Impact Assessment Review 7(4): 347-361.
United Kingdom	Solid Waste Management	Petts, Judith. 2001. "Evaluating the effectiveness of deliberative processes: waste management case studies." Journal of Environmental Planning & Management 44(2): 207-226.
Barbados	Food Security in Fishing	McConney, P., R. Mahon and H. Oxenford. 2003. Barbados Case Study: The Fisheries Advisory Committee. Barbados: Caribbean Conservation Association.
Philippines	Agricultural Policy	Baracol, Donah Sharon. 2005. "Philippines: Stakeholder Participation in Agricultural Policy Formation, Case Study 36." Managing the Challenges of WTO Participation: 45 Case Studies. Cambridge: Cambridge University Press.
United States (NY)	Food Systems, local planning	Pelletier, David L., Vivica Kraak, Christine McCullum and Ulla Uusitalo. 2000. "Values, Public Policy, and Community Food Security." Agriculture and Human Values 17(1): 75-93.
Citizen Juries		
Estonia	Water transportation	Sare, Margit. Testing of Innovative Public Participation Methods in Water Management. Peipsi CTC, Estonia. Presentation. Accessed online: 21 November 2008. Available at: http://river.bef.lv/data/file/Margit_S%C3%A4re_Estonia_PPmethods.pdf
Estonia	Water - Transportation	Integrated Water Resource Management. 2008. River Dialogue: Testing Innovative Public Participation Methods- Citizens' jury and Focus groups in Estonia. Accessed online: 21 November 2008. Available at: http://www.gwptoolbox.org/images/stories/cases/en/cs_272_fullestonia.pdf
Australia	Watershed Management – pollution control	New South Wales Government Department of Environment and Climate Change. http://www.environment.nsw.gov.au/stormwater/casestudies/citizenjury.htm . Accessed on 15 November 2008. Page last updated 21 Feb 2008.
Australia	Parks/Protected Areas Management	Australia Government: Land & Water Australia. 2001. Using citizens' juries for making decisions in natural resource management. Fact sheet.
Australia	Parks/protected areas – weed control	James, RF and RK Blamey. A Citizens' Jury Study of National Park Management. Accessed online: 18 November 2008. Available at: http://cjp.anu.edu.au/docs/CJ3%20.pdf
United States (MN)	Transportation – congestion pricing	Munnich, Lee. 2006. Political and Institutional Issues in Congestion Pricing: Minnesota's Experience. Surface Transportation Policy and Review Study Commission. Presentation. 18 October 2006. Available at: http://www.transportationfortomorrow.org/pdfs/commission_meetings/1006_meeting_washington/munnich_presentation_1006_meeting.pdf . Accessed 18 November 2008.
United Kingdom	Solid Waste Management	Judith Petts. 2001. "Evaluation of the effectiveness of deliberative processes: Waste Management case studies." Journal of Environmental Policy. 44:207-226.
Referenda		
Argentina	Mining	"Esquel Celebrates One Year Referendum Anniversary." Accessed online: 7 December 2008. Available at:

		http://www.nodirtygold.org/refanniv.cfm .
Guatemala	Mining	“Guatemala: Sipacapa Community Says No To Mining!” Bank Information Center Update, 1 July 2005. Accessed at http://www.bicusa.org/en/Article.2191.aspx . “Glamis Gold Comments on Sipacapa Referendum.” All Business, 23 June 2005.
Guatemala	Energy- Hydro development	Kern, Kimberly. 2007. "Ixcán, Guatemala says NO to Xalala Dam." Upside Down World 02 May 2007.
India	Industrial Development	"India's first 'Referendum' on an Industrial Project?" The Access Initiative Blog, 8 October 2008. "Raigad SEZ Referendum Not Genuine: Reliance." Press Trust of India, 24 September 2008. Nair, Shalini. 2008. "Farmers defeat first referendum on an SEZ in India, in Raigad, Maharashtra." Sanhati, 21 September 2008.
Switzerland	Environmental Policy	Bornstein, Nicholas and Philippe Thalmann. 2008. "I Pay Enough Taxes Already! Applying Economic Voting Models to Environmental Referendums." Social Science Quarterly 89(5): 1336–1355.
Peru	Mining –Site Selection	Muradian, R., J. Martinez-Alier and H. Correa. "International Capital Versus Local Population: The Environmental Conflict of the Tambogrande Mining Project, Peru." Society & Natural Resources 16(9): 775–792. Haarstad, Håvard and Arnt Fløysand. 2007. "Globalization and the power of rescaled narratives: A case of opposition to mining in Tambogrande, Peru." Political Geography 26(3): 289–308. Boyd, Stephanie. 2002. "Tambogrande Referendum Has Domino Effect in Peru." Americas Program. Silver City, New Mexico: Interhemispheric Resource Center. De Echave, José. Undated. "Governance and Extractive Industries in Ecuador, Peru and Guatemala: the Mining Case." Canadian Foundation for the Americas.
Other Tools		
Computer modeling simulations		
United Kingdom	Water Conservation	Moss, Scott and Thomas Downing, Juliette Rouchier. "Demonstrating the role of stakeholder participation: an agent based social simulation model of water demand policy and response" Centre for Policy Modelling, Manchester Metropolitan University. Environmental Change Institute, University of Oxford. Accessed online: 25 October 2008. Available at: http://cfpm.org/~scott/water-demand/demand-pilot1.pdf
Collaborative partnerships		
United States (CA and WA)	Watershed Management	Leach, William D., Neil W. Pelkey, and Paul A. Sabatier. 2002. "Stakeholder Partnerships as Collaborative Policymaking: Evaluation Criteria Applied to Watershed Management in California and Washington." Journal of Policy Analysis and Management, Volume 21 Number 4 (Fall 2002).