Enable

Advise

Establish
autonomy

Delegate
authority

Partner

Collaborate

Involve

Consult

Inform

Water Tenure Reform: Developing an Extended Ladder of Participation

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"Politics of the Commons: Articulating Development and Strengthening Local Practices"
RCSD Conference, July 11-14, 2003, Chiang Mai, Thailand

Abstract: Analysis of participation raises issues not only about how much citizens are engaged in government decisions, but also how much government is engaged in decisions made by citizens and their organizations. Many current policies seek to increase participation in water resources governance, but face questions about the extent to which institutional reforms actually shift power and influence in decisionmaking. Building on Arnstein's " ladder of citizen participation" and subsequent literature on ladders, spectrums and other typologies of participatory governance and co-management, this paper synthesizes an extended scale of participation covering engagement in government decisions, joint decisions, and empowerment to support decentralized decisionmaking.

Introduction

Good governance principles such as transparency, accountability, decentralization, and participation are now widely incorporated in the policies of governments and international development agencies. Empowerment of local communities and natural resource users is frequently advocated, as a means of promoting democracy, equity and better management of natural resources. In water resources management, stakeholder participation and subsidiarity have been prominent principles, promulgated in documents such as the Dublin Principles (United Nations 1991) and the water policies of the World Bank (1993, 2003), and Asian Development Bank (2001). However, putting such principles into practice poses a continuing challenge for institutional development. Ambiguity, confusion and large gaps between policy and practice are prevalent. There are often major questions about the extent to which institutional reforms actually change the power of individuals, groups, and communities to affect decisions.

Much discussion about participation focuses on the question of how much the public and particular stakeholders take part in decisions made by government agencies. The question can also be reversed to ask how much government does or should participate in or support decisions by private organizations and individuals. Assessments of the extent of participation can look not just at how much public agencies engage others in decisions or share power in co-management and other joint decision processes, but also consider alternatives for government to more fully empower and support autonomous or independent decisions by citizens and local organizations.

Changes in the institutions governing rights to water have important implications for who is involved in decisions. Changes may open or close opportunities for participation, including or excluding the public and particular stakeholders. Many current reforms in water governance are intended to empower water users. In the context of participatory policies and increasing water scarcity, water user organizations and water management agencies need to extend their capacity to communicate, cooperate and coordinate in new ways. This paper synthesizes a ladder of participatory governance as a tool for analyzing some of the issues involved in improving participation in water resources management.

The first section of this paper reviews Arnstein's (1969) influential "ladder of citizen participation" and several subsequent approaches to categorizing levels of participation in governance. Synthesizing elements from these earlier scales, the second section outlines a "ladder of participatory governance" covering a range of levels of government involvement in decisions. The third section briefly illustrates how the scale could be applied to some issues of water governance such as irrigation management transfer, development of new irrigation systems, basin water allocation and integrated water resources management.

Participation Scales

Ladders

In an influential and widely cited paper, Sherry Arnstein (1969, see also Wilcox 1998, de Paoli 2000) proposed a "ladder of participation" to criticize the limited extent of local control in U.S. urban development programs. Arnstein pointed out how the legislative mandate for "maximum feasible participation" in urban development had frequently been ignored, or applied in ways that resulted in little or no genuine power for local communities. She argued that local control was feasible, as shown by examples in some cities, and proposed the ladder of citizen participation, shown in Figure 1, as a way to highlight how often those goals were not achieved. Arnstein's concept of a ladder of participation has influenced later thinking in urban planning and many other fields. The terminology in Arnstein's ladder of participation reflected her deliberately provocative critique, arguing that low levels of participation were inadequate and unsatisfactory, as indicated by the use of the terms manipulation, therapy, placation, and tokenism, all carrying strong negative connotations. Subsequent scales have used more neutral terminology, while sharing a concern as to whether consultation and other forms of involvement offered genuine influence or only the appearance of participation.

Figure 1. Ladder of Citizen Participation (Arnstein 1969)

8	Citizen control		
7	Delegated power	→	Degrees of
6	Partnership		Citizen Power
5	Placation		
4	Consultation	→	Degrees
3	Informing		of Tokenism
2	Therapy	→	Non
1	Manipulation		Participation
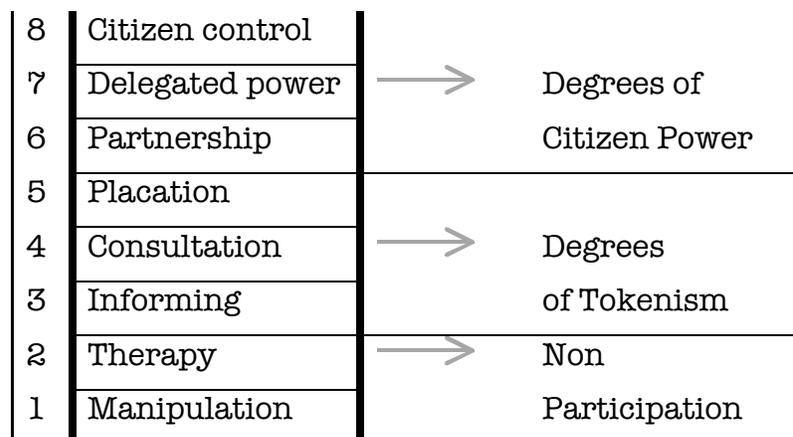
Figure 2. A New Ladder of Citizen Participation (Connor 1988)

RESOLUTION/PREVENTION	←
LITIGATION	→
MEDIATION	→ **LEADERS**
JOINT PLANNING	→
CONSULTATION	→
INFORMATION-FEEDBACK	→ **GENERAL PUBLIC**
EDUCATION	→
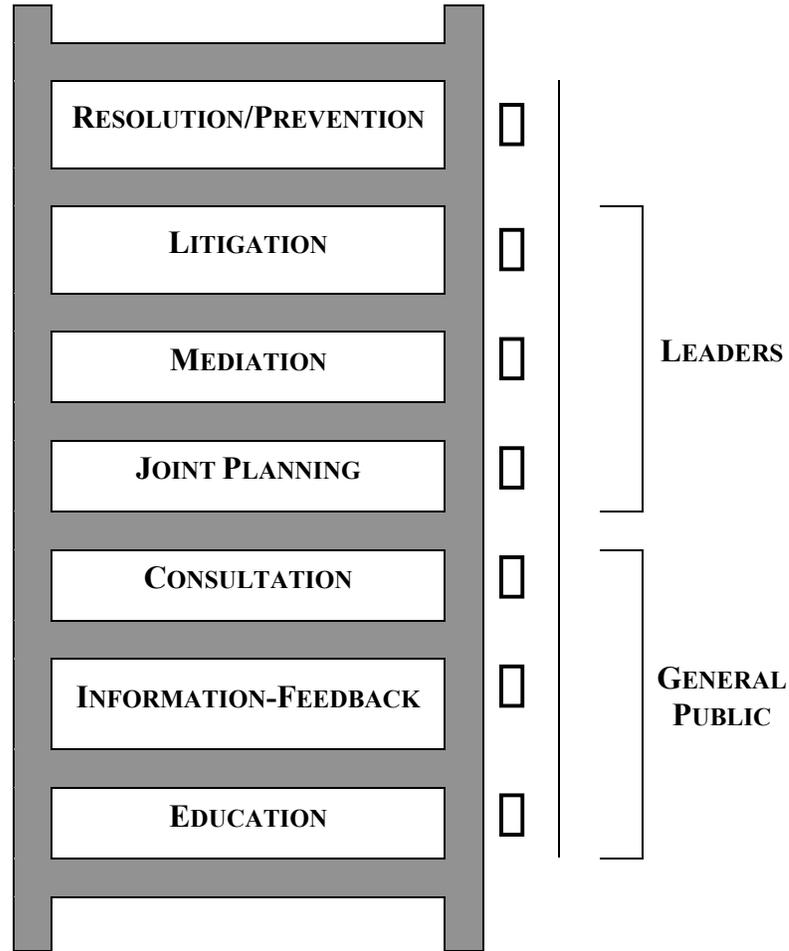
In response to Arnstein's Ladder, Connor (1988) proposed a "New Ladder of Citizen Participation" (Figure 2) intended to better reflect "a logical progression" from one level to another to "prevent and resolve public controversy about major issues." Thus if the results of educational activities indicated that the constituencies who might be affected do not understand and accept a plan, then information-feedback activities would be undertaken, using methods such as surveys, organizational profiles and other media. If this did not lead to resolution, then consultation, joint planning, mediation or litigation could be employed in order to reach a resolution. An information-feedback process might be conducted with the general public, in parallel with consultation with leaders of key interest groups and joint planning with other government agencies and jurisdictions. Connor's ladder is structured in accordance with a cumulative sequence of increasing levels of participation and incorporating the use of mediation and litigation, to reach the end of resolving or preventing a dispute over some public controversy.

Shifting to mediation or litigation does not, however, raise the level of participation by citizens. The scale does not include delegation of authority or other shifts toward

citizen control as an option. While Arnstein's scale was deliberately designed to emphasize citizen empowerment, Connor's ladder focuses primarily on situations where one party, usually government, holds primary authority to decide and may have to engage or even negotiate with others, but would not hand over decisionmaking power to them.

Potapchuk (1991) stressed that building consent in communities needed to go beyond elites and ensure broad-based participation, emphasizing engagement with representative groups. Experience with participatory approaches to building consent showed that participation should start as early as possible, drawing on a range of perspectives to frame a common problem definition, educate each other, identify alternatives, achieve consensus and share in implementation, in processes aimed at developing a "positive, open and collaborative civic culture." Potapchuk offered a typology of shared decision-making (Figure 3) to "capture the essence of power – who decides or who supports the outcome." He suggested that while consultation would usually be a staff-driven process, joint and delegated decisions would be citizen-driven. His levels of shared decisionmaking are based first on the question of whether a decision is made by government alone, jointly or delegated to another group. It then distinguishes between cases where government consults with individuals and those where it works with representative groups. However in many cases, rather than sharply distinct categories of unilateral, joint or delegated decisions, power and influence over decisions may be better represented by levels or a continuous range of possibilities.

As Potapchuk notes, working towards consultation or working towards a joint agreement recognizes the power many groups already hold to block or support decisions. While formal authority still lies with the government, in practice other participants may hold significant power as a result of the alternatives open to them. They can withhold agreement from consensus in involvement or collaboration processes. They can employ the media, politics, courts, and other means to oppose a decision and subsequent implementation. Typically obtaining agreement, in terms of active support or at least

Figure 3. Levels of Shared Decision Making (Potapchuk 1991)

Government Decides
Government consults with Individuals and Decides
Government Consults with a Representative Group and Decides
Government Works with a Representative Group and They Jointly Decide
Government Delegates Decisions to Others

Figure 4. A Ladder of Community Participation for Underdeveloped Countries (Choguill 1996)

1 Empowerment		
2 Partnership	Support	
3 Conciliation		
4 Dissimulation		
5 Diplomacy	Manipulation	
6 Informing		
7 Conspiracy	Rejection	
8 Self-management	Neglect	
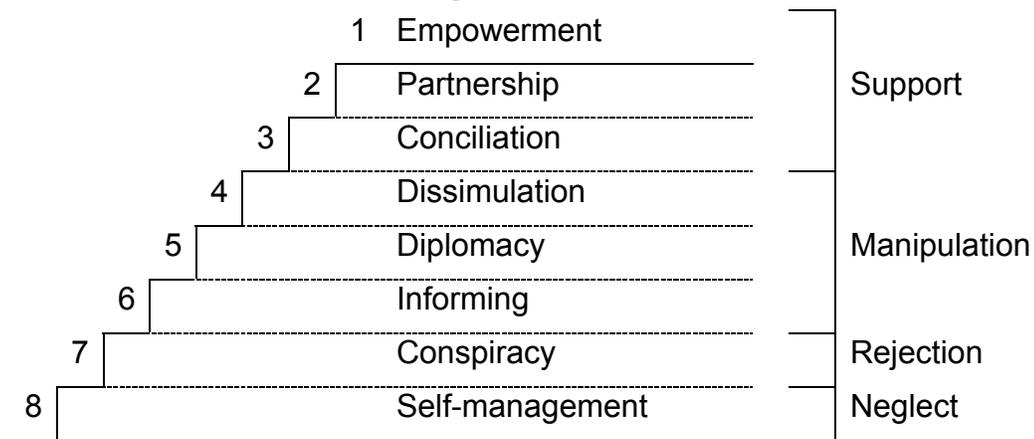
acceptance to the point of not actively opposing, is a major objective of participation processes. Such processes thus seek not just to incorporate better information and enhance legitimacy, but also to reduce future opposition to the decision and increase support. In mapping those involved in a decision process it may be useful to look not just at the internal process within an agency, but also the possibilities open to other potential participants. In terms of bargaining power according to interest-based negotiation theory (Fisher et al. 1991), these options may constitute their "best alternative to a negotiated agreement," (BATNA) which is a crucial determinant of their power within a negotiation process.

Choguill (1996) proposed "A ladder of community participation for developing countries" (Figure 4) which attempted to address the dimensions of both 1) community power in the political arena and 2) performance in providing urban services, such as housing, through mutual help initiatives. The scale is supposed to be "based on the degree of governmental willingness in carrying out community mutual-help projects." Her examples point out cases where governments attempt to suppress or manipulate local initiatives. Empowerment is defined in terms of community members "having a majority of seats or genuine specified powers in formal decision-making bodies. Thus the levels primarily concern community participation in *government* projects and the extent of government support for or manipulation of community participation. Cases of community self-management, where government does nothing, are placed at the lowest level of the ladder. Choguill's ladder is thus not so much concerned with levels of local control or citizen power, as with the extent to which government attempts to manipulate, engage, or support communities in government initiatives.

The definitions for both Arnstein's and Choguill's scale build in terminology and value judgments that high levels of participation are the desirable goal, and that low levels of participation are a result of government attempts to restrict and manipulate participation. Potapchuk uses more neutral terms, though his discussion \emphasizes that consultation is usually inadequate to build consent.

A recent paper by Ross, Buchy and Proctor (2002) draws on a review of participation in natural resources management in Australia to conclude that in addition to the distribution of power, participatory processes are also affected by the characteristics of participants such as their number, selection, organization and history, and particularly their tenure rights in relation to the resource, as well as the nature and duration of the tasks involved, e.g. planning, management or specific works; and who initiates activities. Arguing that a one-dimensional scale such as Arnstein's ladder is inadequate, they propose a typology that ranges from no participation to private decisions without any government involvement, with other categories identified according to examples from Australian experience:

Individual management – no participation

Community-based management with collective ownership

Community collective activity, such as in environmental stewardship and conservation groups, typically involving volunteers in specific tasks concerning resources over which the group has no tenure rights

Organized interest groups, which may be organized into peak bodies

Composite stakeholder bodies to influence or coordinate, for example in regional planning and catchment management, perhaps having some devolved authority but without having formal tenure control over the resource

Shared management through formally agreed partnerships for land or other resources under direct control of the parties.

Stakeholder-based planning and negotiation, usually for a single issue

Consultation

Information

Agency or corporation management with no participation

The first two levels, individual and community management, represent decisionmaking under private or collective ownership, largely independent of government control. The last three levels, consultation, information and non-participation, cover stakeholder engagement, or lack thereof, in government initiatives, while the next two, shared management and stakeholder-based planning, involve joint activity based on mutual agreement. The other three categories: stakeholder bodies, interest groups and community activities, are characterized by different patterns of tenure rights, organization and membership through which collective action may be coordinated. The scale positions various institutional arrangements between the extremes of non-participatory government management and purely private management.

Figure 5. Levels of Co-management (Berkes 1994)

7	Partnership/Community Control	Partnership of equals, joint decision-making institutionalized; power delegated to community where feasible
6	Management Boards	Community is given opportunity to participate in developing and implementing management plans
5	Advisory Committees	Partnership in decision-making starts; joint action on common objectives
4	Communication	Start of two-way information exchange; local concerns begin to enter management plans
3	Co-operation	Community starts to have input into management; e.g. use of local knowledge, research assistants
2	Consultation	Start of face-to-face contact; community input heard but not necessarily heeded.
1	Informing	Community informed about decisions already made

Co-management of Natural Resources

Participation and devolution to local control have been a major concern in policy reforms and research on management of forests, fisheries, irrigation, rangelands, and other natural resources, particularly community-based natural resource management (CBNRM). Attention has focused on ways in which government agencies could share management responsibilities with local communities, through various forms of participatory planning or transfer of authority to local groups. Figure 5 outlines levels of co-management, as proposed by Berkes (1994). The diagram differentiates increasing levels of local engagement, local input being heard, use of local knowledge, information exchange, joint action in decisionmaking, and participation in developing and implementing plans. The fifth and sixth levels are defined in terms of specific structures of advisory committees and management boards, rather than more general characteristics of the co-management relationship. The top level in Berkes' scale includes both joint decisionmaking and delegation of power to communities. This scale uses relatively neutral terms for the different levels.

Figure 6. A Hierarchy of Co-management Arrangements
(Pomeroy 2000)

Government-based management

Community-based management

Government centralized management

Co-management

Community self-governance and self-management

instructive
**consultative**
cooperative
advisory
informative
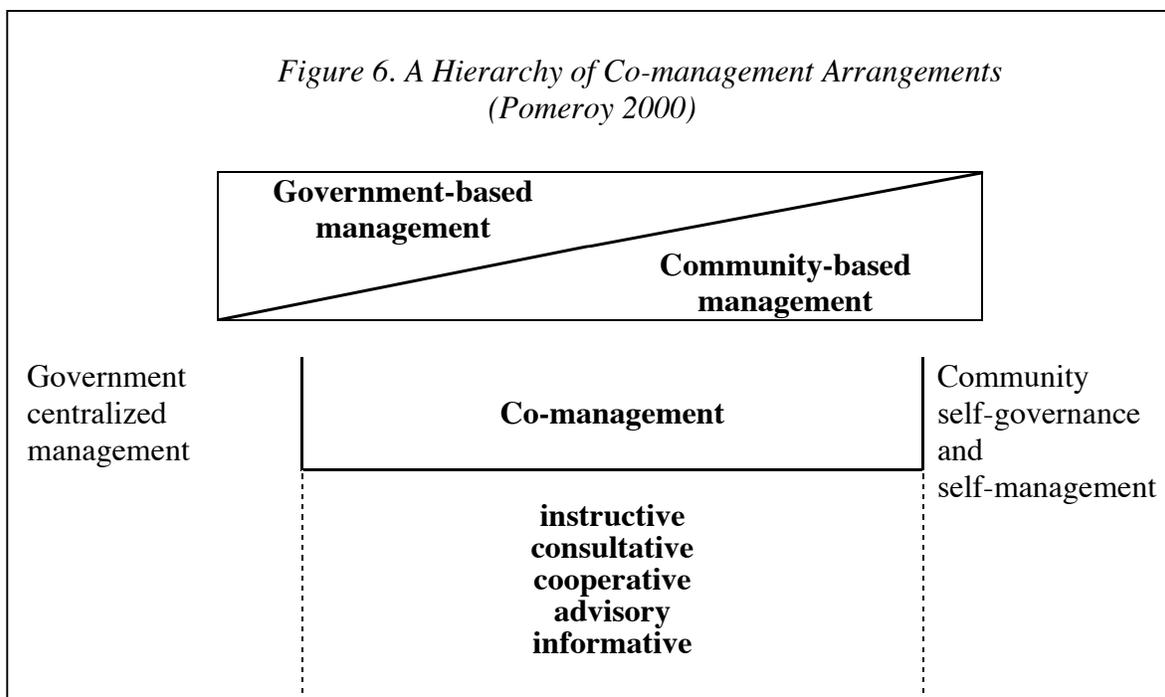
Figure 6 provides a somewhat more general presentation of the different roles of government and local groups which might occur under co-management (Pomeroy et al. 2000). These would typically be framed in an explicit co-management agreement. The five types of co-management arrangements shown are based on a review of fisheries co-management arrangements by Sen and Nielsen (1996). Government's role can range across a spectrum from instruction to consultation with communities of resource users, to cooperative arrangements, to being advised of decisions that it then endorses, to just being informed of local management decisions. The different community roles can also be framed as a difference between participation as voice for resource users or stakeholders versus acting as citizens empowered in governance (Cornwall and Gaventa 2000).

In a recent synthesis of research on decentralization in forestry and other areas of natural resources management in developing countries, Ribot (2003) points out that many co-management arrangements maintain detailed requirements for preparing management plans that must be approved by government authorities. He suggests that in many cases it could be more effective to avoid such micromanagement in favor of establishing environmental standards that set broad limits within which local authorities would have autonomy to make their own management decisions without having to ask permission first. As discussed later in the paper, similar issues arise in terms of irrigation management transfer, water rights, and the authority of water user organizations over water allocation. Ribot argues decentralization is most likely to be successful where power goes to local authorities subject to electoral accountability, particularly local governments.

Figure 7. Public Participation Spectrum (IAP2 2000)

INCREASING LEVEL OF PUBLIC IMPACT →

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
P2 Goal: To provide the public with balanced and objective information to assist them in understanding the problems, alternatives and/or solutions	**P2 Goal:** To obtain public feedback on analysis, alternatives and/or solutions	**P2 Goal:** To work directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered	**P2 Goal:** To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution	**P2 Goal:** To place final decisionmaking in the hands of the public
Promise to the Public: We will keep you informed	**Promise to the Public:** We will keep you informed, listen to and acknowledge concerns and provide feedback on how public input influenced the decision	**Promise to the Public:** We will work with you to ensure that your issues and concerns are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision	**Promise to the Public:** We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decision to the maximum extent possible	**Promise to the Public:** We will implement what you decide
Example Tools: Fact sheets, Web sites, Open houses	**Example Tools:** Public comment, Focus groups, Surveys, Public hearings	**Example Tools:** Workshops, Deliberative polling	**Example Tools:** Citizen advisory committees, Consensus building, Participatory decisionmaking	**Example Tools:** Citizen juries, Ballots, Delegated decisions

www.IAP2.org

Public Participation Spectrum

   The "spectrum of participation" developed by the International Association for Public Participation (Figure 7) categorizes levels of public participation in decisions made by government or private organizations. In contrast to Arnstein's emphasis on local control, the spectrum focuses mainly on public engagement in decisions made by government agencies, particularly situations where the government retains final authority but may

inform, consult, involve, or collaborate with others in the process of making decisions. It thus fits with situations where government statutes confer final responsibility on government, and do not permit transfer of final decision authority to other bodies. It is deliberately arranged horizontally, to suggest a range of options, rather than a hierarchy. The formulation stresses clarity to the public about their roles and what consideration their views would receive in making the decision at each level.

The spectrum deals not only with a specific community or local citizenry, but others who may be concerned about and engaged in the decision process, as citizens, communities, special interest groups, other specific stakeholders, or the general public. It can be used from the perspective of government, or for a private organization such as a business, public utility or other entity that may engage with citizens in some aspect of decisionmaking. The consultation, involvement and collaboration levels all include two-way interaction with stakeholders, but differ in how closely they are engaged and able to influence the process. The empowerment end of the IAP2 spectrum does not differentiate between partnership, delegated authority and other forms of devolution. Instead various forms of empowerment, in all of which the government does not hold final authority to make unilateral decisions, are lumped together in a single category of empowerment.

An Extended Ladder of Participation

As discussed in the previous section, it would be useful to have a scale that covers a full range of levels of participation, and which distinguishes between partnership arrangements and those where primary authority is held by another organization besides government, possibly with some degree of regulation, advice or accountability. The scale would thus cover not only public engagement in decisions made by government, or partnership arrangements where power is shared, but also situations that more fully empower decisions by local organizations and citizens. For a descriptive and analytical tool, neutral terminology is useful in keeping assessment of the actual extent of participation distinct from evaluation of what level of participation should be present, and analysis of the motives and manipulations of those involved. Different levels can framed as descriptive categories, to help analyze different forms of participation that may be appropriate under various circumstances.

The diagram in Figure 8 synthesizes levels of participation, drawing on concepts and terms from Arnstein, co-management, IAP2, and other sources. The inform, consult, involve and collaborate levels follow the IAP2 spectrum of public participation while intermediate levels distinguish between partnership, delegated authority and autonomy subject to general regulatory oversight, and then levels where government's role is restricted to providing advice or an enabling legal framework. The key questions concern "who decides?" and "who has input into the decision?" Input includes not only expressing preferences, but also influence in shaping the terms in which a decision is framed, the range of information reviewed and the alternatives considered. Whatever the level of participation may be, understanding, consent, and support for a decision may occur but cannot be presumed to be an automatic outcome of participation.

Decisions by "government" may be those made by a government agency using its mandated authority, an executive official, or a representative body such as a city council, management board or other entity. The scale could also be applied to interaction between

two or more government organizations, e.g. central government and a local authority, as well as participation by the public.

Any scale such as this attempts to simplify and highlight a key dimension of difference, necessarily leaving out many nuances and complexities. The scale can be most precisely applied to a single decision, with only two parties interacting. In practice, a decision often moves through a process of planning, review, approval, and implementation involving various institutions. Most decisions concern a variety of stakeholders, including multiple participants from government and local organizations. Multiple levels of government are often involved. Sometimes it may be easy to summarize an overall level of participation, while in other cases it may be important to distinguish the extent to which different participants are included or excluded.

Levels in the scale such as this are inherently somewhat arbitrary, but the ones distinguished in this scale are intended to reflect meaningful and measurable differences, based on legal authority, power, and how the actual decision process proceeds. The scale centers on partnership arrangements that require joint agreement, and shades into lower levels of participation by the second party in each direction. Levels are defined in terms of the extent to which other participants have a voice in decisions made by government or the extent to which government provides support for decisions made by other parties. The next section describes the levels of participation in this scale in more detail, while the following section applies them to some examples of water governance.

Inform

As in scales discussed above, a first step is to share information, to provide advance notice that a decision will be made and offer information to those who might be concerned. This contrasts with what has been termed the "decide-announce-defend" (DAD) mode of non-participatory decision-making, which has often characterized top-down, technocratic, bureaucratic and expert-dominated processes. The inform level covers one-way dissemination of information, and can build a foundation for other forms of participation.

A large variety of methods are available for sharing information including reports; media campaigns through newsletters, newspapers, radio and television; and training programs. Preparing information, and knowing it will be available to the public may by themselves lead to changes in decisionmaking, even without interaction or feedback from outsiders. Policies for greater transparency in governance address access to information. Availability of such information does not guarantee any higher level of participation, but may be important to facilitate other levels of participation.

Consult

Public hearings are perhaps the most well known way for government agencies to obtain input into their decisions. Written comments may also be invited. Interviews can be conducted with leaders and other individuals. . Focus groups can be convened and questionnaire surveys used to gather information from a sample of respondents. Consultation creates a two-way flow of information. It is often a legal requirement, as for example in environmental impact assessments and in other procedures of public agencies.

Figure 8.
An Extended Ladder of Participation

Enable

9. Framework providing status and recourse for organizations and individuals, Accountability based on organizational charter, reporting and auditing requirements, property rights, contracts, liability, etc.

Advise

8. Provision of information, guidance and other technical assistance as input to decisions, guidance for voluntary compliance, e.g., extension, statistical information and research, promotion of voluntary initiatives and coordination

Establish autonomy

7. Autonomous decisions by communities, organizations, or individuals, subject to compliance with specific laws and regulations, e.g. regulatory review for issuance and renewal of permits and licenses, enforcement of environmental standards

Delegate authority

6. Decisions by a group or organization with specific authorization, e.g. devolution by legal mandate, management concession, operating franchise, commission delegated power for final decision, court-sanctioned dispute settlement

Partner

5. Joint decisions by mutual agreement, co-operation where both sides hold veto power, e.g. some co-management agreements, intergovernmental organizations, public-private partnerships, contracts

Collaborate

4. Stakeholder representatives "at the table," active as team members in formulating and recommending alternatives, although final decision by one party. Task forces, working groups, negotiated rulemaking

Involve

3. Interactive discussion and dialogue, as a supplement to an existing internal decision process. Workshops, town hall meetings, some advisory groups

Consult

2. Two-way communications, receiving input, listening, exchange of views. Public hearings, written comments, question & answer sessions, interviews, focus groups, questionnaire surveys, etc.

Inform

1. One-way information dissemination about problems, analysis of alternatives and decisions, e.g. announcements, lectures, brochures, press releases, press releases, websites, reports, etc.

Sources: Arnstein 1969, Potapchuk 1991, Berkes, 1994, Pomeroy et al. 2000, IAP2 2000

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Involve

Various systematic methods can be used to promote interactive discussion and dialogue, going beyond just receiving complaints, suggestions and other comments in order to explore concerns, formulate new ideas and consider options. The results of such involvement can provide an input into internal decision processes.

Workshops in various forms are typical examples a way to provide for involvement in discussion, while still keeping the decisions themselves an internal matter. Involvement methods typically go beyond dealing with individuals to emphasize involving groups and their leaders. They can employ various techniques that promote listening, mutual understanding, creative generation of alternatives, and clarification of values and preferences (e.g., IAP2 2003).

Involvement methods offer a way to incorporate participatory processes where government does not surrender control over the final decision. An involvement level of participation may be more comfortable for senior decisionmakers concerned about their prerogatives. In some cases, technical complexity or other factors may make it problematic to bring stakeholders more closely into the process. In other cases, legislation may mandate that agencies make the decisions, making it difficult to share authority. However, as indicated by the term "placation" in Arnstein's scale, there is a major risk that such processes may give the appearance of participation, without having a substantive impact. This in turn can backfire by generating disappointment, anger and cynicism about future efforts labeled as "participation."

Collaborate

The key difference in the collaboration level is that representatives of concerned parties have "a seat at the table" and so are able to actively take part in gathering and analyzing information, formulating alternatives, and ranking preferred solutions, for example as members of a task force or working group. Their role goes beyond supplementing an internal decision process and instead opens it up to become more of a joint problem solving effort. However in collaboration, the final decision still lies with the agency.

A notable example occurs in negotiated rulemaking by agencies. Rather than developing regulations in isolation, proposed rules and their implementation can be discussed with those concerned, both those who will be required to comply with them and with representatives of other interest groups concerned about the proposed regulation.

In all these processes there are issues of inclusion, who is involved, marginalized or left out, and of what may done to strengthen the capacity of participants to take part in the process. The risks in collaboration include those of the process being captured by narrow interests, or of representatives being "co-opted" so that outcomes do not satisfy the interests of the groups to which they belong. There are principal-agent problems concerning how well representatives act on behalf of those they are supposed to represent versus serving their own personal interests. Representatives must also deal the fundamental tensions between simply reflecting their constituents' views and being entrusted as a leader to formulate wise, well-informed judgments.

The difference between involvement and collaboration may seem to be relatively subtle, but may be significant in terms of both the potential influence offered, and the extent of change required in agency procedures. Involvement can be relatively easily added on as a supplement to an existing decision process. However collaboration is likely to require restructuring the process, providing a strong enough and clear enough mandate for the collaborative group. In many cases, those directly involved may not be the ones making the final decision, which instead is done by someone at a higher level within a bureaucratic hierarchy. However the goal in a collaborative process can be to produce a strong consensus that all those taking part individually agree to support the group's recommendation during subsequent stages in the decision process. Having this level explicitly distinguished in the scale helps accurately distinguish situations where there is a strong effort to promote participation, usually seeking consensus, but where final authority over the decision still lies with one party.

Partner

Partnership moves into a situation where power is more fully shared, so that one party no longer has the ability to unilaterally impose its choice. It thus represents a key shift toward empowerment. Co-management to formulate participatory plans, where both sides must agree, i.e. both sides have a veto, represents one example of partnership. This does not mean that the situation is one of equal power. It does mean that each side has a genuine option of choosing not to agree. Asymmetries of power, information, expertise, and other factors are inherent in most relationships, especially those where one party is a government agency. However, if mutual agreement is required, then this does give significant power to all the parties who have the ability to hold up agreement and insist that their concerns are adequately addressed.

Delegate authority

In some cases a government agency or other body may assign the task of coming up with a solution to a group, such as commission, and say they will accept whatever solution that group chooses. In other cases management authority, for example over a forest or an irrigation system may be devolved to a local organization, even if the government still retains ultimate ownership rights. The extent of such delegated authority may be spelled out in a contract, concession or other document. Rather than require full agreement by government to all details of management, considerable authority can be delegated to a local body. Another form of authoritative government backing comes in cases where disputes have been taken to court and the conflicting parties later negotiate a settlement that the court confirms, backing their agreement with legal authority and enforceable sanctions.

If government representatives are part of a delegated body, but do not have veto power, e.g. they can be outvoted, then authority has genuinely been delegated. If however, decisions require unanimity, then the relationship would better be characterized as partnership, not delegation. Similarly, if the body cannot make a final decision, but only a recommendation, which must be approved by a more senior authority within an agency hierarchy, then the situation would be one of collaboration (or even just involvement) rather than delegation.

In some cases, what the government considers as delegation or management transfer may actually represent a way of recognizing and formalizing existing de facto local control. In the case of natural resources management, agreements may include specific arrangements for agency approval of management plans along with technical assessment of performance in relation to forest conservation, irrigation operation and maintenance, rangeland quality or other parameters.

Establish Autonomy

Where government does not get involved in specific management decisions and plans, but still enforces more general regulations, then the situation might best be characterized as one of regulated autonomy. In such cases, constraints need not be embodied in a specific charter, concession or other document, but instead may be part of general regulatory arrangements for a sector, e.g. environmental standards. Autonomous decisions would be those allowed without additional authorization, under the authority of an existing permit or other regulatory arrangement. This creates and protects space for local decisions.

Advise

Government may provide specific extension advice or other customized technical assistance even where there is no legal requirement to comply with such guidance. General statistical information, for example as rainfall and streamflow information, may be collected and published by government agencies for general use. Governments may also sponsor or otherwise support bodies that promote voluntary initiatives and coordination, as for example in some watershed conservation activities.

Enable

Even when there is no specific regulatory or advisory role, government may still play a significant role in providing legal status, and other aspects of a framework of laws and courts for resolving conflicts. Even when an organization is not subject to sector-specific regulations or other constraints, it may still be accountable within the context of the more general legal framework concerning contracts, liability and other matters. An organization's legal status, the way in which it is chartered by government, may still include some reporting requirements, e.g. for registration as an organization, publication and audit of accounts, and provision of annual reports and other information to members.

Ostrom's (1990) analysis of factors affecting common property management pointed out that government recognition could play a significant role. Policies that did not recognize local management arrangements, and made them illegal, could block or obstruct local collective action. Given the major roles that governments and their legal systems play in most places, absence of any form of recognition or authorization of existing local, traditional, customary of "informal" rights, e.g. concerning a forest, irrigation system or other resource, tends to delegitimate and undermine existing institutions, i.e. it represents not a neutral situation of non-intervention but rather an unstable and disruptive situation. Conversely, providing an enabling framework can be

significant, distinct from other activities to advise, regulate or otherwise interact with local decisionmakers.

Elaborating the ladder

This ladder could be made longer, and more logically complete, for example by adding an additional level for situations where there was no relevant action by government. This would include cases of complete self-governance or self-management, where communities receive no support from government, or make decisions and act independently to help themselves, disregarding or opposing government policies and actions.

At the other end of the scale, nonparticipation may result from concentration on internal bureaucratic and expert modes of analysis and decisionmaking, or from deliberate attempts to exclude, deceive, and otherwise manipulate those who might be affected by the decision, as well as the general public. In practice many decisions may also be made without participation, due to agency procedures, budget constraints, limited organizational capacity on the part of stakeholders, and other factors. In some circumstances, such as urgent decisions to deal with a flood or other emergency, consultation and other forms of participation may be largely precluded.

A long version of the scale might thus cover eleven levels, from non-participatory government decisions to pure independence (non-participation by government). The scale could also be further subdivided into even more levels. However, in the interest of presenting a relatively simple, symmetrical, and useful scale, the diagram here is divided into nine levels of participation, centered on partnership arrangements and then moving to lower levels of participation by one party or the other.

Water Tenure Reform and Participatory Governance

This section briefly outlines some ways the ladder could be applied. These are offered as illustrations of how such a scale can be useful in understanding the range of institutional options available, and in distinguishing the extent to which different reforms do or do not shift the extent of participation in water governance.

Irrigation Management Transfer

Policies for participatory irrigation management raise questions about what authority is actually transferred to water user organizations and what will be the future role of government. Participatory irrigation management reforms might just be a matter of establishing water user organizations that act as a channel for one-way or two-way communications between water users and the agency operating an irrigation system. User representatives could be involved in developing annual irrigation system management plans, through mechanisms such as participatory workshops or through establishing a council with farmer and government representatives responsible for developing policies and plans, subject to final approval by higher authorities. Irrigation management transfer (IMT) is usually interpreted to mean a higher level of empowerment, sometimes through partnership arrangements requiring joint approval, or by delegating authority to a user

organization. The management authority of a water user association (WUA) might be narrowly defined in a transfer agreement, or established by more general regulatory requirements for water use licenses, building permits and environmental standards which allow substantial autonomy. In other cases, policies labeled as PIM or IMT may be largely a matter of recognizing existing de facto local control, with further government roles focused on providing extension advice, statistical information on hydrology, or just a legal framework enabling WUA to have adequate legal status to be recognized by and make agreements with other public and private organizations. Thus the institutional options in irrigation management transfer could cover the full range of levels of participation. There is no one best or unique level, but instead a range of options for institutional arrangements, with important implications for how decisions are made.

Irrigation system development

Creation of a new irrigation system, including the decision about how much water to abstract from a stream or aquifer, could be done independently by users, or perhaps with advice from government. An agreement might have to be negotiated with existing users, perhaps sanctioned by an administrative agency or court, or a new permit might be required. Development might be done jointly with a government agency, with formal agreement required from both sides. Conversely, the primary initiative might come from government, with user representatives collaborating closely, involved periodically through workshops, or allowed opportunities to offer suggestions. Again, the decision could take place at almost any level on the ladder of participation, with consequences with who is informed about or engaged in the decision.

Basin water allocation

As water use increases in a basin, water abstraction by upstream users starts to affect downstream users and different users come into competition with each other. Different parts of the basin system become more closely coupled with each other. This can stimulate increasing action among user organizations and with government to coordinate and control water abstraction. Such collective action can cover the range of levels on the ladder of participatory governance, as illustrated by some of the following examples:

Where water is abundant, users may have little need to worry about how their water use affects others, acting independently.

Educational campaigns may help encourage conservation. Technical data collection and analysis can provide information about the available supplies, helping support decisions by users. Performance audits may help identify ways to reduce water losses and adjust usage during periods of scarcity, offering advice suited to their situation. Initiatives from water users or government can promote coordination and good practices and coordination on a voluntary basis, within a basin or specific subbasins.

A regulatory system of water use permits can provide a framework within which most activity can be done directly by users acting autonomously, either on their own or in coordination with each other, for example by developing institutions for mutual cooperation and self-governance.

Government may delegate specific authority for user groups or other management organizations to handle internal allocation, and for basin or subbasin organizations to control water allocation within their territories.

Public and private entities may cooperate to improve water allocation procedures.

Stakeholders may be members of a task force that develops a basin water allocation plan.

Workshops may be convened to promote dialogue about how to deal with water shortages.

Public hearings can provide an opportunity for comment on agency water allocation.

Government agencies operating irrigation systems and other hydraulic facilities may publish information about amounts diverted and other actions.

The examples listed above a just a few of the ways in which water users and other concerned persons may be engaged in water governance.

Integrated Water Resources Management

Participation and subsidiarity are central principles in integrated water resources management (GWP-TAC 2000, Rodgers and Hall 2003). Putting them into practice involves decisions about how much power water users, their representatives and other stakeholders will have in decisions. In some ways integrated water resources management represents an extension of earlier top-down approaches to water management by centralized technocratic agencies. Reforms can open up decisionmaking, sharing information, soliciting public input, involving stakeholders in discussion and engaging them in working groups and other bodies that formulate recommendations regarding new policies and procedures. A key shift to empowerment occurs if authority for policies, budgets or other matters actually moves to a governing board, "water parliament" or other body, whether one where government agents still are members, with or without veto power over decisions, or one constituted by water user organizations without formal government membership. A regulatory framework of water use permits may be part of establishing "rules of the game" that clarify rights of different users, giving them autonomy to manage their own actions as long as they comply with the rules. Governments may play an important role in funding the provision of technical advice and relevant research, and chartering organizations within an enabling legal framework.

Conclusions

Increasing competition for water, and institutional mandates for increasing participation, bring a need for better ways to engage water user organizations and the public in water governance, requiring new capabilities and new institutional arrangements. Institutional options for participatory governance of water resources can cover a full range of levels of participation. Analysis and reforms concern choices not only about the possibilities for making government decisionmaking more transparent and accountable, engaging citizens and sharing power, but also ways in which governments can act to empower user organizations with authority, establish suitable regulatory arrangements for autonomous action, and provide advice to support empowered

decisionmaking. The extended ladder of participation developed in this paper offers one tool that may be useful in analyzing and clarifying the extent of participation in various institutions and decisions for water resources governance.

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