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Water and Democracy: New Roles for Civil Society in Water Governance

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Abstract

In most democratic countries, government officials make water allocation decisions. Citizens depend on these officials and their technical advisors to take account of both technical and political considerations in determining which water uses get priority, what infrastructure investments to make and what water quality standards to apply. In many parts of the world, water users and stakeholders have additional opportunities to comment on such decisions before they are implemented. Under some circumstances, citizens can challenge water management decisions in court. This is not enough. More direct democracy — involving stakeholders before such decisions are made — can produce fairer and increasingly sustainable results. The steps in collaborative adaptive management — a form of stakeholder engagement particularly appropriate to managing complex water networks — are described in this article along with the reasons that traditional forms of representative democracy are inadequate when it comes to water policy.

Key words: stakeholder engagement in water policy-making and management, direct democracy, representative democracy, civil society, collaborative adaptive management

Around the world we continue to treat the allocation of water as a technical problem when, in fact, it is primarily a social problem. Building an array of pipes to get water from one place to another involves design choices for which there are right and wrong answers, but deciding how much water should be set aside for agricultural versus industrial uses is a political problem for which there are acceptable, but not correct or incorrect answers. We expect scientists and engineers to handle allocation decisions because we presume they are the only ones capable of figuring out how the various technical systems involved operate. But because water allocation is primarily a social problem, it does not make sense to let engineers and scientists have the final say. Instead, complex problems in which both scientific and

political considerations must be addressed should involve the people with the most to gain or lose — that is, water users. This means that some way must be found to identify and involve representatives of relevant stakeholder groups in making decisions about the way water resources are allocated to meet competing needs. The preconditions for effective stakeholder engagement are described in this paper along with some of the 'best practices' for making it work.

Some who agree that water allocation is not just an engineering problem think that means we have no choice but to allow competing ideologies and interests to play out in the political arena. Unfortunately, this can produce terrible results. In such a winner-take-all environment, one political interest can triumph in a water allocation debate while ignoring the needs of others, wasting vast amounts of water in the process and even setting segments of the population against each other. Politics as usual will not ensure that water allocation decisions are informed by scientific as well as local knowledge, which only non-experts who have first-hand experience with water systems can supply. Best practices suggest that competing claims should be addressed using carefully managed consensus-building processes involving representatives of relevant stakeholder groups working in consultation with technical experts of their own choosing (Islam and Susskind, 2012; Susskind, McKearnan and Thomas-Larmer, 1999)). Such efforts aim to produce written agreements that meet everyone's top priorities. These are then submitted to elected and appointed officials who can either support or ignore them, although ignoring them puts those officials at some political risk. In this way, water allocation decisions are not the exclusive domain of technical experts, public officials or political interests, but a responsibility that is shared by all stakeholders.

Focus, for a moment, on the water supply in the place where you live. Someone or some institution in your community or region is allocating that water. Wherever the water is, decisions are being made about how clean it should be (i.e., what water quality standards should apply). Then, someone else is deciding when and how to move that water from where it occurs naturally to locations where it is needed for

agricultural, residential, commercial, industrial, fishing, recreational, conservation or other purposes. Along the way, prices are set. To guarantee that decisions about supply and quality are not ignored, regulations are imposed, including restrictions on how adjacent areas and linked resources must be protected. Agreements are negotiated with those whose legal rights intersect with these decisions. Thus, there are numerous water management decisions made in every part of the world all the time. Most of us are oblivious to these activities, especially to whether these decisions are based on reasonable assumptions, the results are fair, or even if appropriate adjustments are made in light of changing social and ecological conditions.

What does democracy require?

Democracies try to guarantee a number of things. At the core of democratic governance is the notion that citizens have rights that must be protected. For example, they have a right to vote in free and fair elections to choose the officials who will represent them, express their opinions (within limits), and hold elected and appointed officials accountable for meeting ethical standards. In most democracies, citizens do not have the right to vote on every public policy choice, although they are entitled to make their views known and complain if they do not like what elected officials are doing. At the same time, officials are supposed to take the public interest into account, not just the concerns of a few constituents. In most democracies, citizens rely on their elected and appointed officials, along with the court system, to protect the rights of those least able to fend for themselves. Majority rule is usually tempered with the need to protect the rights of minorities. Through a free press and rules regarding disclosure of information, citizens unhappy with the actions of elected and appointed can run for office, mobilize anti-government action, support opposition candidates, or seek redress in court.

Over the past three or four decades in most democracies, this basic list of rights and expectations has been augmented. The 1992 Rio Declaration on Environment and

Development, for instance, expanded what are often called “third generation human rights.” While these are not all embodied in international law, these include the right to a health environment; a right to natural resources, intergenerational equity and sustainability and a guarantee of access to information and the right to communicate. In a great many countries and democratic systems, traditional notions of representative democracy have been supplemented with emerging forms of direct democracy aimed at ensuring that all citizens can, in fact, express and realize these rights. Instead of just complaining privately to elected or appointed officials, or using the press, the courts and elections to raise doubts about fairness in public decision-making, some countries, particularly in Latin America, have added provisions for mandatory public hearings at which individuals and lobby groups can present their views in a public way regarding the actions of agencies and appointed boards. In North America and Europe, the “rules of standing” have been liberalized so that more citizens and action groups can bring court challenges if they are unhappy with policy or regulatory actions. And, throughout the developed world, non-binding referenda or plebiscites have been added to be certain that the majority view is documented. (Olver and Fusaro, 2011)

The Strengths and Weaknesses of This Move Toward Direct Democracy

Each of these supplements to representative democracy has its strengths and weaknesses, and each has implications for water management. It is true that public hearings create forums at which more voices can be heard, but this is not the same thing as giving stakeholders a role in formulating policy choices before government officials have decided what they are going to do. Most public hearings on proposed investments in water infrastructure do not involve a sustained give-and-take in which presenters with competing perspectives are required to reason together. Rather, speakers at public hearings say anything they want, and usually exaggerate their demands in an effort to be heard above the din. The so-called ‘hearings model’ generates more heat than light as the recent case of the Bello Monte Dam in Brazil illustrates. [Note #1] This model has taken root in many societies, creating

opportunities for public input, yet doing little more than increase the burden on anyone unhappy with government decisions to show why elected and appointed officials have made a mistake. In these situations, it is easy for public officials to dismiss the complaints of unhappy protesters by arguing that they are just being selfish. Governments (those officials argue) must take the concerns of all their constituents into account. Unfortunately, even if they are not sincere about this, it is an effective way of dismissing challenges. On rare occasions, protesters have been able to demonstrate that the results of a proposed water investment or water management decision are unfair to a large group. When they have been able to do this, they have sometimes mustered sufficient political clout to force a change in policy. To accomplish this, though, they must organize politically, not just make a presentation at a hearing claiming that a mistake has been made.

Empowering aggrieved citizens to challenge public decisions in court has made a difference in some countries. In South Africa, for instance, the National Environmental Management Act (NEMA) of 1998 allows any person “acting in the public interest” or “in the interest of protecting the environment” to institute a private prosecution. Liberalizing the rules of standing means that increasing numbers of aggrieved parties can bring complaints to court. Unfortunately, the courts are ill-equipped to resolve disagreements over most issues that affect multiple stakeholders or have complicated technical features, like water policy decisions. The courts can only apply legal precedents and the rule of law. Too often, this precludes actual problem-solving. Additionally, the appeal process can take a long time, judges and juries have no technical expertise in particular fields, and picking a winner and a loser rarely gets to the heart of whatever caused the dispute in the first place.

In the United States, the ‘rules of standing’ have been liberalized to the point where almost anyone can challenge a decision, even if they have no direct stake in what is being decided. It used to be that the courts would only accept a challenge from someone who could show that they were in direct jeopardy. This has evolved,

though, to the point where well-funded advocacy groups on both sides of almost any issue can initiate a lawsuit, whether they are directly at risk or not. Groups with the most money can hire sophisticated legal help and commission scientific studies to support their arguments, claiming, for examples, that there is insufficient water to maintain long-standing allocation rules. In the end, the court can only side with the defendant or the plaintiff. Judges (and juries) do not have the expertise to make independent technical judgments. Past precedents, or prevailing legal interpretations, carry the most weight, even if they are outdated or fail to address the fundamental (fairness or technical) issues being contested.

In general, the courts agree that it is not their job to determine what the wisest allocation of water should be, restricting their examination to whether or not the responsible agencies abused their discretion. In the United States, the courts have repeatedly affirmed that judicial review should accord great deference to an agency's conclusions and that "participation by citizens was not designed to allow them to affect policy choices made by administrative agencies or others." [Note #2] Similarly, the Indian Supreme Court recently dismissed a public interest litigation suit complaining about the meager allocation of water to Gujarat's Kutch district, saying that how much water is allocated by a State for a particular region is not a matter of judicial review. [Note #3]

All of these shifts toward increasing involvement of civil society in public policy-making have and will continue to affect water management around the world. Stakeholders increasingly expect greater accountability on the part of water management agencies. They increasingly expect to be consulted before water allocation and related water management investment decisions are made. The notion that water management decisions should be left to engineers is increasingly difficult to sustain. Deciding how to resolve the competing claims of water users demanding their "unofficial" rights to water and sanitation, however, is not clear.

Voting or otherwise tallying public preferences on complicated public policy questions rarely produces good results. Referenda do not give voters a range of choices. They typically restrict citizens to voting yes or no on one option. So, whoever controls the language of a proposition has the upper-hand. Also, public relations companies can be brought in to shape public opinion through advertising, making it relatively easy for the wealthier 'side' in a water controversy to control public perceptions. Instead of bringing the 'sides' together to hear each other out, or search for a mutually advantageous solution, referenda tend to polarize a community. They leave a significant share of the public (sometimes as much as 49%!) unhappy, just waiting for a chance to mount yet another campaign, or push for reconsideration. This leads to a kind of yo-yoing public policy-making; not something that allows long-term water management strategies to be implemented effectively.

Deepening Democratic Commitments to Stakeholder Engagement

In light of the weaknesses of these three supplements –expanding the unofficial definition of rights, relying more heavily on formal hearings and plebiscites, and liberalizing the rules of standing -- a fourth form of public engagement has emerged in almost every continent. . It can be applied in most water allocation situations. It goes by many names – citizen participation, deliberative democracy, and the rise of problem-solving forums --, but here I will call it stakeholder engagement. This new approach to public involvement can be seen in the public participation practices of the Mekong River Commission (Mekong River Commission, 2005). In our recent book entitled *Water Diplomacy: A Negotiated Approach to Managing Complex Water Networks* (Islam and Susskind, 2012), Shafiqul Islam and I describe how this approach can work to deepen democratic commitments and go beyond the minimum guarantees that citizens expect with regard to water management. I will describe what stakeholder engagement involves, how it seeks to bolster traditional government decision-making, and how it can overcome the weaknesses of the three common supplements to representative democracy described above.

Stakeholder engagement in water management is not dissimilar from what citizens have come to expect in the management of other natural resources, even though water is, in some ways, unique. It falls from the sky, after all, why should anyone have to pay for it? And, how can one person own something so essential to the survival of others? Nevertheless, collective use of this resource shares many similarities to other common pool resource management problems (E. Ostrom, 1990). Hoarding by some means deprivation for others. If everyone takes only their fair share, there's a greater likelihood that there will be enough for everyone, but 'free riders' have to be policed and the resource is vulnerable to disabling attacks by disgruntled members of the community. Cooperation among users, particularly when it comes to inventing and deploying new technologies, can lead to the 'creation' of more water (through conservation, recycling, and reuse), but investment in new technology goes beyond what one water user can probably afford. Stakeholder engagement is a way of handling what are often called 'complex' or 'wicked' problems; that is, those that defy straightforward scientific efforts to maximize efficiency.

Stakeholder engagement guarantees communities, organizations and companies affected by public decision-making a role in formulating project designs, policies, programs or 'solutions' that can meet as many of the most important interests of the relevant stakeholders as possible. Final decisions are still made by public agencies, given their formal statutory authority. But, officials can be held accountable in a very different way if the choices they make (and the reasons for taking action) diverge from the recommendations produced by all the stakeholders working together. The three key features of stakeholder engagement in water resource management are (1) a formal process by which representatives of relevant stakeholder groups are identified and involved in the design of a problem-solving process; (2) the involvement of a professional neutral, or mediator, with the requisite skills and experience to facilitate the participation of a great many groups and individuals with varying capabilities; and (3) a commitment to engage in joint

fact finding, assisted by scientific and technical experts, as part of the consensus building process. Each of these steps is described in some detail, with illustrative cases, in the Consensus Building Handbook (L. Susskind, J. McKernan, and J. Thomas-Larmer, 1999).

Stakeholder engagement differs markedly from traditional notions of public participation in several ways. First, participants are not hand-picked by elected or appointed officials; rather, following an elaborate Stakeholder Assessment by a professional mediator, clusters of stakeholders are invited to choose their own spokesperson (Susskind et. al, 1999). Second, participants take part in face-to-face deliberations aimed at building an informed consensus. In traditional hearings, the views of citizens cumulate, and officials decide what to make of conflicting claims or demands. In a consensus building process, however, participants try to reach unanimity on what they recommend. At the very least, participants are compelled to respond to the needs of others in exchange for concessions that better meet their own needs in an iterative process of negotiation. Third, stakeholder engagement includes a capacity building component. Traditional models of public participation assume that people know what they want and are able to express their views. The process I am describing assumes, on the contrary, the stakeholders must learn more about the scientific and technical issues at stake, as well as how they might reconcile their views with those of others. Finally, a well-managed process of stakeholder engagement can identify 'value-creating' moves that enable participants to avoid zero-sum outcomes. In *Water Diplomacy* (Islam and Susskind, 2012) we illustrate how this works.

There are costs involved in working this way, especially if a professional mediator needs to be hired and deliberations stretch over several months. Stakeholder representatives may have to convene in both plenary sessions and in working sub-groups to produce an informed consensus. The product of their efforts is usually a proposal and not a binding decision. While it is illegal in most countries for public officials to delegate away their statutory authority; we have found that elected and

appointed officials are usually pleased (and surprised) to receive carefully crafted proposals that, if adopted, will satisfy most, if not all, of the contending political interests and conform to all legal and regulatory requirements.

(Susskind et. al, 1999) While this still leaves public officials responsible for making final water allocation and water policy decisions, they know they will lose political and electoral support if they ignore proposals produced through transparent, independently-facilitated and collaborative efforts.

The Preconditions for Successful Stakeholder Engagement in Water Allocation Decisions

Based on my review of a great many water management cases around the world, (see, for example, IUCN's extensive set of water management case studies or the Tufts University Aquapedia) there appear to be four preconditions for successful stakeholder engagement in water allocation decisions (J. Dore et. al., 2011), (www.waterdiplomacy.org/aquapedia). The first is a public, or set of interest groups representing various constituencies, that wants to be involved in water decisions. This presents a problem in some countries where there is no tradition of stakeholder engagement in water policy-making. So, moving in this direction will take some time. On the other hand, there is no reason not to try. It may require a capacity building commitment that transcends what is needed in other countries that have a long-standing tradition of public engagement. Where civil society is not well organized, it may be necessary to support and nurture the creation of civil society groups.

Many people mistakenly believe that stakeholder engagement can only work in places where the population has a great deal of formal education. This is not true. As public participation practitioners on every continent have clearly established, when local or indigenous knowledge, as opposed to scientific knowledge, is given its due, many water users already have more than enough information about the operation and impacts of water management systems to participate effectively

(www.IAP2.org). Indeed, the kinds of 'indigenous' knowledge and experience local water users bring to policy-making and project design provides an important check on the theoretical assumptions of scientific experts who are not aware of the way socio-ecological systems actually function in particular places.

The second precondition for effective stakeholder engagement is responsive and accountable leadership, both in government and in civil society. Effective leadership is not defined as doing what a majority wants, or what the most powerful faction or political supporters want. Rather, effective leaders are those prepared to support collaborative problem-solving that balances pressing demands in the present with responsibility to future generations and the needs of the public in general. Responsive and accountable leaders are open to innovation that breaks with past practice.

The third precondition for successful stakeholder engagement is the availability of technical experts who know how and are willing to participate in collaborative decision-making, meaning that they are capable of interacting with a wide range of stakeholders with varying degrees of formal training. There are too many scientific experts with advanced degrees from first-rate universities who know nothing about communicating with water users. Too many of these water engineers are unfamiliar with the techniques of stakeholder assessment, joint fact-finding, and adaptive management — which are central to stakeholder engagement.

I will say a little bit more about each of these three techniques since they are so important. Stakeholder assessment involves face-to-face, confidential interviews with a wide range of groups, individuals and organizations. These are used to scope what a particular stakeholder engagement effort ought to address. Such interviews are best undertaken by a trained mediator who is not committed to a particular outcome, and is invited by those in positions of authority to initiate such a process. The product of these interviews is a preliminary roster of groups that might be invited to select their own delegate(s) to participate in a stakeholder engagement

process. A Stakeholder Assessment also involves potential participants in generating a suggested timetable, work plan, budget, and ground rules. Ultimately, everyone interviewed is asked to agree to the proposed stakeholder engagement plan before the details are finalized.

Joint fact-finding is more than just a research effort undertaken together by water users and government agencies. It is a method of problem-framing and collaborative analysis that includes selecting scientific and technical advisors, questioning the data gathering procedures these advisors select, interacting directly with the advisors as they attempt to make sense of the analyses they have generated and drawing conclusions together about the 'sensitivity' of the findings to the key assumptions with which they began. Many experts are uncomfortable engaging in such inquiries. They prefer to do their work in private, submit their findings once their work is finished, and remain aloof from all discussions of the implications of their results. Joint fact-finding underscores rather than eliminates the contingent nature of most scientific and technical analyses; that is, the extent to which what scientists discover hinges on the assumptions and methods with which they begin. This is not to say that such analyses are not useful for clarifying policy choices; rather, it is to suggest that scientific studies of what has happened, what is happening and what might happen rarely lead directly to decisions about what ought to happen.

Given the contingent nature of scientific inputs into water allocation decisions and the complexity of the socio-ecological dynamics involved, it probably makes sense, whenever possible, to adopt an experimental approach to water management. So, for example, in efforts to make long-term decisions about the allocation of water in a river basin in light of the uncertain impacts climate change might have on those water supplies, it is probably best to make provisional decisions about how to (1) allocate current supplies, (2) implement efforts to enhance conservation, (3) look for short-term investments in new technology or new patterns of development, (4) continuously monitor the results and (5) adjust allocation decisions periodically.

This is what is meant by adaptive management. When monitoring is undertaken collaboratively, findings are more believable (because they are less contested). When carefully planned experiments are used to learn more about key assumptions regarding the likely impacts of proposed allocation schemes, water users and water managers can increase their understanding of the complex systems involved and make incremental adjustments with greater confidence.

The fourth precondition is the availability and involvement of *skilled facilitators*. In almost every region of the world there are now professional mediators who can manage stakeholder engagement in a non-partisan fashion. In countries where this is not true, it takes about three to five years to train environmental professionals to take on such assignments. Most important is the neutrality of those managing collaborative decision-making. The moment it appears that they are beholden to one party (including the government), water users and other stakeholders will walk away. It may help to think of such process managers as referees, although in the case of stakeholder engagement in water management, these need to be individuals who help the parties write the 'rules of the game' before they begin. (L. Susskind and J. Cruikshank, 2006). Some of these mediators are lawyers who have pursued further training as neutral professionals. Others are technical specialists who have spent considerable time studying process management techniques and apprenticing with skilled neutrals.

A Hypothetical Example of Stakeholder Engagement

Based on a great many stakeholder engagement efforts around the world, including several for which I have served as mediator, I offer this composite description of how all the elements described above come to fruition in practice (Note #4).

1. A leader, seeking greater legitimacy and a better way of addressing water allocation problems that have been contested in the past, decides to commission a Stakeholder Assessment. This may be triggered by a series of

mishaps or a natural calamity. It might also be the outcome of a recent shift in political leadership. In any case, a professional mediator is contracted by the political leadership to undertake numerous confidential, one-on-one interviews, over a specified period of several months.

2. Based on the results of the Stakeholder Assessment, an agency head invites each category of identified stakeholders to select a representative to participate in a problem-solving forum facilitated by a mediator (often the same person who prepared the Stakeholder Assessment if the parties were satisfied with that person's work). The lead public official or agency asks the forum to generate proposals that come as close as possible to meeting all the conflicting interests of the contending groups, given the legal, financial and other constraints that apply. In the context of such a consensus building effort, the goal is to do more than 'summarize' what everyone wants. Rather, the objective is to find a way to meet the conflicting interests of all the groups in a creative fashion. It is the stakeholder representatives who must figure out what kind of a (scientifically appropriate) deal will get almost all of them a better outcome than what they are likely to be left with if they fail to reach agreement. They may have to consider significant shifts in practice or possible changes in existing laws or regulations. They may also have to support investments in new technology. In many instances, 'swaps' of various kinds can enable a wide range of groups to meet their highest priority concerns in return for supporting a package of actions or policies that also meets the (conflicting) interests of others.
3. With the help of the facilitator and a range of technical specialists, the groups engages in joint fact-finding before trying to piece together a package agreement. Within whatever deadlines the political leadership sets, the group must submit a proposal in writing. Such agreements are usually signed by all the participants, indicating their willingness to support implementation of the package, but only if the regulators or lawmakers involved endorse the whole deal.

4. If the political leadership decides to go forward with the package, specific benchmarks of success are made public along with contingent commitments — proposals to move in new directions depending on how the future unfolds. These commitments need to be incorporated into new laws, regulations, agency budgets or executive decrees to be believable.
5. By the time such an ad hoc group of stakeholders has reached agreement, the public is acutely aware of what has been agreed to and what officials and stakeholders have worked out. Mechanisms to make the deliberations transparent to the public, such as televised meetings or recordings, are put in place before such forums begin. Water allocation decisions made in this way, of course, can only reflect the best thinking at the time. So, mechanisms also need to be put in place, consistent with the agreement, to monitor implementation. If unlikely (but not entirely unexpected) changes in socio-ecological dynamics occur, the political leadership may need to reconvene the group or adjust elements of the agreement along lines anticipated by the forum.

Not all stakeholder engagement processes lead to successful outcomes. I have described stakeholder engagement processes in the United States and elsewhere where the outcome was not what the parties had hoped for (L. Susskind, A. Camacho, and T. Schenk, 2010, 2012). Sometimes, new officials come into office in the middle of a collaborative processes and refuse to implement what their predecessors promised. Occasionally, stakeholder groups that approved a final agreement (as their leadership or membership shifts) change their mind and obstruct implementation. Water management efforts sometimes run afoul of new policies adopted in other sectors that were formulated completely independently. So, for example, an energy emergency may cause public policy-makers to override prior commitments they made to proceed with water management in a certain way. In such cases, officials and stakeholder groups are obliged to explain why they no longer support the water management agreements they approved earlier. Whatever

they do, the electoral process will determine how the general public responds to their explanations.

Can Collaborative Adaptive Management Work Successfully Everywhere in the World?

Many analysts think stakeholder engagement is a 'western' or 'northern' idea, but it has, in fact, worked every bit as well in the 'south' or the developing world. And, in many respects, as P.H. Gulliver reports, collaborative efforts at community decision-making have a long history in the tribal societies in Africa and Asia (P. Gulliver, 1979). Long ago, village chiefs throughout Asia and Africa pressed villagers to deliberate until agreement was achieved. Nevertheless, there are a number of reasons, today, that stakeholder engagement is sometimes seen as inappropriate in the developing world. One is the mistaken assumption that only formally educated citizens can understand and criticize the technical or scientific basis for water policy-making, and that a large citizenry without formal education will have nothing to contribute. As we document in the many cases report in *Water Diplomacy* (Islam and Susskind, 2012), there is no basis for such thinking. In addition, in places with under-developed democratic systems, where elected officials are uncomfortable with public challenges to their leadership, civil society leaders (often with help from abroad) must first wage a campaign to establish their legitimacy. There is also the question of where the money will come from to subsidize travel and other costs of participants who may need to travel to join problem-solving sessions over several months. Finally, there may not be professional mediation assistance available when and where it is needed. While all of these obstacles can be overcome relatively easily, officials in some countries use them as excuses to avoid moving to the next level of stakeholder engagement.

While scientific input is important in water allocation decisions, it is not decisive. Non-objective judgments — about whose interests should be given priority and how problems should be framed — always dominate technical judgments about

how much water is likely to be available and what uses of that water are appropriate given water quality levels. How much money to spend improving water quality is neither a scientific nor a technical question. While in some countries, the law clearly states that certain water uses should be given priority over all others, these are not decisions that were made by scientists or engineers. Stakeholders are in the best position to answer these questions, especially if given information in a form they can use and an opportunity to participate in the initial framing of water resource management efforts.

It is important to stress the value of 'local' or 'indigenous knowledge' in thinking through water allocation choices. Sophisticated analysts who do not live in an area, and depend solely on reports from other technicians, can spend a great deal of time debating how to use 'paper' water that is not actually available, while water users with a first-hand sense of how much 'wet' water is really present, are often ignored. Each water allocation decision can be used to build the capacity of users and user communities, or such decisions can be made in a way that keeps stakeholder in the dark. In my view, it is the responsibility of political leaders to involve scientific and technical experts who know how to work with stakeholders to ensure public learning so that every future decision is easier for users to understand.

There are a great many tools that water managers can use to make it easy for water users and stakeholder groups to participate in collaborative decision-making. The distribution of background information in a form that is readily accessible to users (i.e. through local study circles) can precede stakeholder engagement efforts. (S. James and T. Laht, 2004) Small-scale presentations (i.e. charrettes) aimed at engaging users in the selection of options for further study may cost a bit, but participants can quickly eliminate policy and design options that violate their most important concerns (National Charrette Institute, 2011). Training local residents to lead widespread but small-scale conversations is both a capacity-building step and a way of generating valuable local information. This has been done in many countries; one excellent example is the work of the Center for Advanced Studies in

Bangladesh (H.J. Moudud, A. Rahman, and H. Rashid, 1988) in which the Center trained many hundreds of residents to lead community discussions throughout the country which contributed to the formulation of a national sustainable development plan. Their success hinged, I believe, on a commitment to widespread public education, sharing scientific knowledge with the public-at-large, training dialogue facilitators, and a belief in the importance of engaging civil society in government decision-making.

Stakeholder engagement, particularly for collaborative *adaptive* management, requires on-going organizational commitments, not one-time events. Usually, this approach requires governmental water agencies to contract for the assistance of non-governmental or civil society assistants who can establish and maintain contact with water users on a regular basis. These same facilitators can keep water users informed about whether past decisions have been implemented as promised.

Conclusions

It is no longer acceptable for governments to engage in unilateral decision-making about water. Nor is it sufficient to delegate these responsibilities to technical advisors. Political mobilization aimed at ensuring that the concerns of water users are not ignored is increasingly likely. But, politicizing allocation decisions in a way that increases divisiveness may work against the interests of the stakeholders. Before intractable conflicts emerge, elected and appointed leaders should involve water users in generating water resource management policies and plans. In return, water users or stakeholders must accept shared responsibility for inventing ways to meet the conflicting interests of multiple groups at the same time, given legal, financial and other constraints. Stakeholder engagement, of the sort described in this paper, offers an effective way to do this.

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NOTES:

¹ Despite generating the largest public hearing ever conducted in Brazil ("Brazilian judge blocks plans for construction of Belo Monte dam", The Guardian, 25 February 2011. Available at: <http://www.guardian.co.uk/world/2011/feb/26/brazil-belo-monte-dam-ruling>), the project license was disputed in court for a number of inadequacies. The federal government's decision to approve construction of the dam was halted by a federal appeal court judge's order finding that indigenous groups had not been properly consulted.

² United States v. Metro. Dist. Comm'n, 679 F. Supp. 1154, 1163, D. Mass. 1988 aff'd in part, appeal dismissed in part, 865 F.2d 2 1st Cir. 1989).

³ "Water allocation is no matter for judicial scrutiny: Supreme Court", The Hindu, 26 July 2011. Available at: <http://www.thehindu.com/news/national/article2293795.ece>

⁴ Breaking Robert's Rules (2006) by L. Susskind and J. Cruikshank (Oxford Publishing, UK) has been re-issued in modified form, with the help of additional authors, to reflect public sector dispute resolution experience in at least 9 other countries. These include: Japan: L. Susskind, M. Matsuura, and H. Shiroyama (2007), Introduction to Consensus Building; Netherlands: F. Evers and L. Susskind (2009), It is Possible! Administrative Negotiation for Sustainable Results; Russia: L. Susskind, T. Shamlikashvili, and A. Demchuk (2008) Managing Difficult Decisions in the 21st Century: Secrets of Building Consensus; Italy: L. Susskind and M. Sclavi (2011) Creative Confrontation; Chinese: L. Susskind and A. Lee (2007) Breaking Robert's rules: The Effective Way to Build Consensus; Brazil: L. Susskind and Y. Duzart, (2008) When a Majority is Not Enough; France: L. Susskind, Y. Duzart, A. Lemperur (2011) A Good Process Gets a Good Outcome: Facilitative Leadership; Argentina: L. Susskind and F. Ingouville (2011) Mejor Que La Mayoria.