Democratic Deliberation and the Normative Dimensions of Environmental Change: Mapping and Developing Consensus for Governance

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Presented at the Berlin Conference on the Human Dimensions of Global Environmental Change

8-9 October 2010
Berlin

The linkages among society and the environment generate normative challenges across at least three distinct dimensions. First, environmental change imposes costs (both individual and collective) that fall disproportionately on various social groups, often those who have historically suffered from disadvantage and disenfranchisement. Second, the necessity to create institutional arrangements for managing environmental change and integrating those decisions with collective choices in other areas poses value-laden questions of policy design. Third, the human causes and consequences of environmental change and the collective choices they involve pit citizens and their understandings of the world against one another at the level of social action.

The task confronting environmental governance analysts in responding to these challenges is to describe accurately and progressively develop the normative, political, and social consensus necessary for managing society-environment linkages in ways that are both ecologically sustainable and democratically legitimate. The work of deliberative theory offers a coherent approach to this task when deliberative techniques are mapped onto these human dimensions of environmental change. Deliberative democrats analyze the issues of distributional justice and social equity by using hypothetical case scenarios in juristic modeling exercises to describe existing elements of normative consensus regarding general legal principles. They employ techniques of deliberative polling to measure support for alternative policy paradigms that institutionalize policy goals and objectives related to the society-environment linkage. And deliberative democrats promote stakeholder partnerships that allow contending local discourses regarding the implementation of environmental policies to be reconciled through the coproduction of regulatory programs and procedures.

Although there is undoubtedly much to be said for the achievements associated with incompletely theorized agreements (Sunstein, 1999), a complete indifference to theorizing our successes ultimately leaves us less able to replicate them. It is in this respect that the efforts of governance and policy theorists can be most useful. What is needed most, perhaps, is a basic road map that will allow environmental actors to identify the techniques of deliberative democracy that best fit the challenges they face at each stage of the policy process--the formation of basic regulatory norms, the choice among competing models of governance of environmental change, and the production of

concrete plans of action. Mapping and specifying these approaches to developing normative consensus for governance, as represented in the table below, is the objective of this paper.

Governance Challenges	**Deliberative Technique**	**Deliberative Problem**	**Deliberative Product**	**Regulative Standard**
Distributional Justice	Juristic Modeling	Hypothetical Cases	General Legal Principles	Normative Consensus
Institutions and Policy Integration	Deliberative Polling/Policy Juries	Alternative Policy Paradigms	Policy Goals and Objectives	Political Consensus
Social Causes/ Consequences of Change	Stakeholder Partnerships	Contending Local Discourses	Implementation Plans/Regulatory Co-production	Social Consensus

Environmental Change and Governance: Normative Principles, Policy Models, Action Plans

Deliberative democratic practice has generally focused either on choices between competing policy models (like direct command and control regulation versus market-based regulatory strategies) or on the development of local implementation agreements within the context of an existing regulatory scheme. We have suggested elsewhere that a process of "juristic modeling" could be used to identify widely supported ***normative principles*** and general propositions of law through the adjudication by citizen juries of hypothetical cases involving disputes over environmental issues (Baber and Bartlett, 2009). Particularly in the area of watershed governance, it is relatively easy to construct such hypothetical disputes. One can, for example, devise hypothetical scenarios that pit the doctrines of *prior appropriation* (according to which rights to water are established by a "first in time, first in right" rule) against claims of *equitable utilization* and state necessity (based upon a "public trust" doctrine under which resources like water are held in trust for general use). This can be done across a wide range of factual circumstances without directly engaging the perceived interests of the citizens who participate in such

deliberations.

The point of departure for this approach is research conducted by Norman Frohlich and Joe Oppenheimer (1992). Their empirical research in ethical theory involved a series of negotiations among small groups of individuals (normally five persons) who were asked to choose among four possible schemes of income distribution to be applied in a simulated economy. Their choice was then implemented in a series of simulations in which participants were asked to perform work for which they were paid and then their incomes were adjusted according to the policy they had previously adopted.

Juristic modeling, however, differs from the approach of Frohlich and Oppenheimer in several respects. Because participants are asked to choose among several regulatory norms rather than among redistributive policies, a more complex hypothetical situation is needed. Rather than a simple distribution of income, it is necessary to present participants with a more richly detailed set of circumstances involving the loss of an environmental good caused by one actor and imposed upon a different actor. The simulation is, if fact, a hypothetical legal case--complete with parties to be heard, pleadings to be weighed, and philosophical problems to be resolved. This approach was first suggested by the work of Kenneth Culp Davis (1969). The factual circumstances of the cases we have developed require participants to choose between hypothetical outcomes that represent some of the underlying normative principles of environmental protection and environmental change and governance.

Moreover, because it is more difficult to simulate regulatory actions than instances of income and taxation, it is necessary to create a survey instrument to capture the experiences of participants and relate them to deliberative outcomes. Instead of focusing on the reactions that participants have when they experience the consequences of their policy choices, juristic modeling concentrates on the deliberative process that produces those choices and the participants' level of normative commitment to the principles eventually chosen. We have developed a series of scenarios in which neighboring states lodge disputes against one another in a "court" over the use of a river that makes up their shared border. One of the disputes asks "jurors" whether the existing pattern of resource utilization (which significantly favors one state) should be respected

or whether that pattern should be altered to allow both states to exploit the river's resources more equally (based on factors like their size and population). Early trials of this technique in Italy and the United States (US) indicate that participants shy away from standard legal doctrines, especially when confronted by the often troubling results of their strict interpretation. There is, however, a marked preference for "equitable use" outcomes over those associated with the traditional legal doctrine of prior appropriation. The level of consensus achieved in these early trials has been quite high, and it has shown considerable durability in the face of subsequent discussions about how the normative principles that had been agreed to could be concretized in policy models and, eventually, plans of administrative action. The advantage for environmental governance is clear. When resource utilization issues implicate basic normative questions (as the generally do), a preliminary deliberative experience with consensual norm building offers a foundation of mutuality that has the potential to expedite agreement at later stages of the policy process. This process of juristic modeling using hypothetical legal cases to identify basic normative principles is represented by the entries in the first row of the Table on page 2.

Deliberative democratic techniques are more commonly used at the next stage of the policy process--the choice among ***competing policy models***. Within the deliberative democratic experience is a planning technique that seems generally well suited to selecting from among competing policy paradigms. This technique is usually referred to in the US as *deliberative polling* (Fishkin, 1995) and in Europe as the *policy* (or *citizen*) *jury* (Huitema, Kerkhof, and Pesch, 2007). It involves convening deliberative assemblies of from 100 to several hundred individuals who are presented with information regarding an existing public policy and the leading alternative approaches. These assemblies are then divided into "juries" of 12–15 persons, and each jury deliberates the choices it has been presented. In some cases, the jury is asked to come to the most inclusive consensus that it can. In other cases, no conclusion is asked of the jury. Rather, the participants are surveyed after their deliberations to determine their "considered opinion," as opposed to their initial preferences.

In the context of watershed governance, a policy jury might be presented the choice between a piecemeal approach to the constituent problems of soil conservation,

species protection, and so forth, or a policy model that emphasizes the development of a comprehensive resource utilization plan encompassing within it the entire scope of the watershed. Or, perhaps, the choice might be between a series of command and control mechanisms of environmental protection and a collection of market-based strategies for resource conservation. As an example, biodiversity policy in the US has long been dominated by the Endangered Species Act (ESA), which imposes strict (some would say draconian) restrictions on the taking of living beings once their species has been determined to be endangered. Another paradigm is the biodiversity policy of Italy, which emphasizes a comprehensive planning approach in which both the direct and the indirect effects of government decisions across a wide range of policy areas are to be evaluated for their impacts on plants and animals. As one might have guessed, the ESA has often been criticized for its narrow and belated focus on species that have become "terminally ill," whereas the Italian approach has been faulted for not having sufficient enforcement capacity to actually protect anything. It should be equally unsurprising that a broader "bio-habitat" perspective has developed in the US and that Italy has taken steps to put more teeth in its biodiversity policy. Our own deliberative experiments in both countries suggest that this convergence is due, at least in part, to the existence of an underlying consensus among Americans and Italians on the general contours of what an effective biodiversity policy requires.

Observers of deliberative democratic practice see both promise and peril in our collective experience with deliberative polling. One the one hand, policy juries have been lauded for offering us our best glimpse into the preferences of a more informed and engaged electorate--preferences that differ markedly from those expressed in conventional polls, in the voting booth, and in legislation engineered by self-interested lobbying groups (Ackerman and Fishkin, 2003). On the other hand, it has been argued that deliberating groups are prone to error as a consequence of group polarization (Sunstein, 2006). Even these critics, however, concede that their concerns apply largely to deliberative groups that are homogeneous and are deliberating questions susceptible of empirically verifiable answers. There is little to suggest that politically diverse policy juries are less able than elite decision makers to achieve ecologically rational results (as that phrase is being used here) and the advantages of such broadly democratic approaches

in terms of political rationality should be evident. Moreover, when methods of selection are used that provide demographically and ideologically heterogeneous deliberative groups, there is no reason to doubt the authenticity of the political consensus that emerges. A deliberative democratic approach is preferable to other approaches because it contains within itself the means of revising both its procedures and its products at the initiative of either organizers or participants (Gutmann and Thompson, 2004). This process of deliberative polling at the stage of the choice between contending policy paradigms in order to identify basic policy objectives is represented in the second row of the Table on page 2.

Finally, deliberative democracy is already a familiar feature of watershed governance at the level of ***action plans*** and policy implementation in the form of watershed partnerships (Sabatier et al., 2005). Sub-national stakeholder groups of this sort have already engaged the interests of deliberative democratic theorists (Baber and Bartlett, 2005). These structures of governance can best be understood as arrangements for organizing and reconciling competing local discourses about the implications of general legal requirements when applied to local questions. The objective is to develop implementation plans at the sub-national level that will achieve national (or international) objectives through the co-production of regulatory governance. One example of this approach has been described as "collaborative learning" (Cheng and Fiero, 2005).

Collaborative learning (CL), which is a recent innovation in public participation that departs from the traditional focus on issues and interests, is an approach designed specifically to address the complexity and rancorous conflict that often characterizes the governance of public lands. CL is characterized by a systems approach to understanding environmental change and governance issues, the promotion (instead of avoidance) of dialogue about differences among stakeholders, and a focus on feasible improvements in concrete circumstances rather than idea outcomes over the longer term. Unlike deliberative polling, which seeks stratified random samples of the population, CL employs landscape-based working groups that represent key stakeholder groups. An outstanding example of such groups is the *watershed partnership* (Clark, 1997). These voluntary groups convene at the local or regional level to discuss issues of watershed governance. Possessing no formal authority, watershed partnerships are open to anyone

wishing to participate. But they generally attract large landowners and corporations whose behavior substantially affects watershed outcomes, environmentalists who can take up or forgo their right to sue under a variety of statutory schemes, and government officials who want to find safe ground in between.

As perhaps the leading example of stakeholder partnerships, watershed partnerships are a well-understood and thoroughly documented technique for involving local participants in the management of a region's natural resources. But whether this is a widely deployable social technology is open to question. *First*, stakeholder participation generally enjoys the advantage of small scale and relatively high levels of social and cultural homogeneity. Under these circumstances, a shared sense of community plays a significant role in the success of issue-specific planning processes (Young, 2008). These circumstances, however, are seldom present when the environmental challenge at hand is international in character. *Second*, the adequacy of funding and institutional capacity which has been found to be critical to the success of stakeholder partnerships in the developed nations (Leach & Pelky, 2001) can rarely be counted upon to be available elsewhere in the world. And while transfers of technology and resources are possible, they implicate another group of stakeholders, taking policy makers further from the relative simplicity of conventional watershed governance. *Third*, there is a fear that low levels of literacy and political empowerment in the developing countries of the world will depress levels of stakeholder involvement, particularly among sub-groups of the population who are already neglected or exploited (Gupta, 2008). Fully participatory democracy, it is sometimes suggested, is a luxury that few countries can afford and few citizens even value. How can each of these concerns be answered?

International problems of environmental governance unquestionably place more complex demands on processes of collective action than do strictly local issues. But international issues are even less amenable to command-and-control solutions than are problems arising in individual communities. Watershed partnerships, like all cooperative decision processes, have distinct limitations. Positive outcomes are always dependent upon existing stocks of human, social, and financial capital (Lubell, et al, 2002). But watershed partnerships enjoy distinct advantages as a result of their ability to coalesce and operate in the absence of assertions of governmental authority. These organizations

come in several varieties – government-centered, citizen-centered, and mixed-membership. Moreover, the secret to their success is not a sense of community per se. It is, rather, that participants see themselves as members of a community of fate. The pressing demands of their shared environmental challenge give them the motivation necessary to seek out collaborative solutions, regardless of whether they share social and cultural commonalities or are subject to the same legal mandates (Hardy and Koontz, 2009). It is the nature of the challenge that determines the character of the partnership.

Resource adequacy is, in some ways, a more difficult challenge than the absence of social solidarity or state sovereignty. It is an unhappy coincidence (and, perhaps, not so coincidental) that the most troubled regions of the world from an environmental perspective also face the most daunting economic challenges and possess the most limited institutional capabilities. Sometimes regarded as the poster child for environmental lost causes, the Philippines is a case in point. After decades of neglect, Philippine biodiversity is on the verge of collapse. Ecosystems have been pushed beyond their limits, often with tragic consequences for human populations. Philippine spending on environmental protection has been miniscule. And when capacity building has been attempted, the economy rather than the ecology has been its focus. In spite of this, recent research has suggested that signs of hope are beginning to emerge. Locally based stakeholder partnerships, with the financial and technical support of international organizations, have made progress in water quality, forest conservation, and species protection. Noticeable gains have also occurred in the production of science-based environmental publications and the building of institutional capacity for environmental governance in civil society (Posa, Diesmos, Sodhi, and Brooks, 2008).

Finally, there is no reason to believe that literacy or political efficacy are prerequisites to participation in a stakeholder partnership for environmental governance. Construction workers in Panama have been enlisted by environmentalists in the effort to rescue animals threatened by expansion work in the canal zone. Not only has their work been capable and reliable, they have begun to show an independent commitment to the effort (Correa, Carver, and Master, 2008). The mangrove ecosystems of the North Brazilian coast have been converted from de facto open access areas that were subject to excessive exploitation into user-regulated and user-managed common pool resources

(Glaser and Oliveira, 2004). And most promising of all, the management of Kenyan wildlife resources by stakeholder partnerships has been enabled by the creation of an innovative political framework, development of the capacity for self-organization within rural Kenyan communities, and the incentives created by the existence of group ranches within various wildlife dispersal areas (Mburu and Birner, 2007). None of these features of Kenyan society are dependent in any direct or significant way upon the literacy or political influence of local residents.

Our experience with the role of watershed partnerships in developing governance action plans is particularly illuminating. It suggests that effective partnerships must be full partnerships. Regardless of the provenance of the watershed group (citizen based, agency based, or mixed), appropriate matching of partnership structure and operation to their roles is key (Moore and Koontz, 2003). This can be accomplished only by involving the local community in the underlying research that defines the policy problem at hand, because the watershed partnership fills the gap between what public institutions can achieve on their own and what the community itself needs (Arnold and Fernandez-Gimenez, 2007; Shandas and Messer, 2008). But to achieve this level of autonomous input, community members of resource management partnerships need to be full partners. The regulatory environment within which they operate must be characterized by a low level of command and control enforcement by central authorities (Lubell et al., 2002), and they must enjoy the political clout and legal standing necessary to engage agency representatives as equals and to insist on the development of consensual (or nearly consensual) resolutions of regulatory problems (Cronin and Ostergren, 2007). It is this peculiarly *social* consensus that sustains the development, implementation, evaluation, and redesign of regulatory action plans during the numerous iterations through which they must pass. This process of using stakeholder partnerships to sort through contending discourse among local contributors to policy implementation is represented in the third row of the Table on page 2.

Observations on Deliberative Practice

A number of observations are possible. First, there is nothing so unique about the

issues of environmental change and governance that it puts them out of the reach of democratic deliberation. New deliberative techniques like juristic modeling can easily be imagined as tools for exploring the contours and limitations of normative consensus about exploitation and conservation of natural resources. Well-tested techniques like deliberative polling can readily be used to elicit a more reflective public opinion on contending models of watershed governance. Of course, watershed partnerships are the preeminent example of stakeholder planning and the co-production of regulatory implementation. Thus, at each successive step of the process of developing environmental governance and policy, deliberative techniques are readily deployable and offer significant advantages over less fully participatory approaches, particularly in terms of the political durability of the solutions that they produce.

The desirability of greater public participation in the formation of international environmental regimes has long been recognized. The involvement of citizens in the development of environmental policy through domestic administrative rule making has been found to increase governmental accountability, improve the information base of public decision makers, and enhance the efficiency of the policy making process by revealing public sentiment at an earlier point than would otherwise be the case. And the need to realize all of these advantages is just as great at the international level (Wirth, 1996).

Citizen juries, in particular, offer some special advantages for environmental decision making. As a complement to more traditional approaches to data gathering on public preferences, citizen juries allow for both the description of *considered* opinions and an assessment of the adequacy of the knowledge base underlying those opinions. This is particularly helpful in addressing the "citizen value" versus "consumer value" arguments that so often arise in this policy arena (Keynon, Hanley, and Nevin, 2001). Moreover, discourse-based techniques like citizen juries allow us to escape the paradox between the public nature of ecosystem values and their measurement through the isolated expression of individual preferences. And because the allocation of environmental goods to one party affects the welfare of others, raising significant normative and ethical questions, discursive groups of this sort would seem to be an

especially appropriate forum for airing the issues of social equity that environmental decision making inevitably involves (Wilson and Howarth, 2002).

The story of citizen juries is not, however, one of unlimited promise. Assembling adequately representative groups is always a challenge. The role to be played by experts and government officials, and the accountability mechanisms associated with their participation, must also be considered (Kenyon, 2005). More important still, there is an ever-present danger that deliberative discourse will degenerate into mere pluralistic bargaining. Where some of our experiences with citizens' juries suggests that they provide significant gains in citizen learning and have a positive effect on participants' sense of political efficacy, there are also worrisome signs of recurring problems with group-think. But an awareness of these tendencies on the part of those who construct these "minipublics" will allow for more consistent and reliable jury design (Huitema, Kerkhof, and Pesch, 2007).

The fact that democratic deliberation can be deployed at every stage of the process of environmental governance leads to a second observation--that deliberative democracy has the potential to add significantly to the political legitimacy of environmental governance. This is significant because environmental governance is likely to involve issues of distributive justice. This characteristic of environmental governance makes it difficult but essential to broaden involvement to include representatives of historically underrepresented groups. The experience of Native American tribes, for example, indicates that their political and economic disadvantages mean that they are not often involved in watershed partnerships. Yet their involvement (when it occurs) leads public officials to deploy financial and human resources in ways that better manage watersheds across a full range of social values, resulting in more equitable and more defensible regulatory outcomes (Cronin and Ostergren, 2007). Thus, the realization that every step in the processes of environmental governance can include significant citizen participation means that a virtuous circle of public confidence and public involvement can be created that can legitimize outcomes that are ecologically sound but that may disappoint some stakeholders and might otherwise be rejected.

Finally, recognizing that democratic deliberation has a role to play at every stage of governance is just a short step from realizing that the linear assumption inherent in the

very concept of the policy process needs to be overcome. In any broadly participatory political process, arriving at consensus is a recursive proposition. Yesterday's normative agreement can be unwound by today's political dissent or tomorrow's social discord. To a greater degree than theorists, perhaps, skilled policy analysts and experienced public managers are aware that all conclusions are tentative and no victory is final. That is why the leaders of collaborative watershed partnerships so often find themselves grappling with challenges of organization development and maintenance rather than the environmental issues that originally brought them to the table (Bonnell and Koontz, 2007). Collaborative governance is at least as much a matter of organization building as it is environmental protection. A long recognized strength of deliberative democracy is its tendency to build social capital (Shandas and Messer, 2008). It does so in at least two ways.

First, well-implemented democratic deliberation makes it possible to achieve an "economy of moral disagreement." Democratic deliberation requires citizens to justify their political positions to one another by seeking a rationale that is fully public, a rationale that all deliberators could (at least in principle) accept. This requirement minimizes the outright rejection by deliberators of positions that they oppose by discouraging reliance upon comprehensive moral or religious doctrines in favor of more limited rationale that allow for the eventual convergence of their views with those of others (Gutmann and Thompson, 2004). Second, democratic deliberation has the tendency to turn a collection of separate individuals into a self-identified group whose members see one another as cooperators in a shared project rather than as opponents in a zero-sum contest. Among the norms that deliberation promotes is a norm of cooperation within the group that is often strong enough to discourage members from clinging to their positions for transient or entirely personal reasons (Miller, 2003). This effect is so marked that our own use of juristic modeling has revealed a serious "repeat player" bias. When the same group of individuals is asked to resolve a series of hypothetical disputes, their ability to achieve consensus increases with every round of deliberation. For research purposes, this is a significant problem. But for the environmental practitioner it means that deliberative exercises conducted iteratively in any given community are likely to increase that community's ability to resolve problems in a collaborative way. Together

these two features of democratic deliberation (its tendency to reduce moral disputes and to promote consensus) can reduce the costs of organization maintenance in a stakeholder partnership by narrowing the grounds of disagreement among participants, thereby reducing the range of possible policy outcomes with which any final decision procedure must deal. When this result is achieved, more of the resources of environmental professionals can be turned to solving environmental problems as less time is spent overcoming the forces of organizational entropy. Ultimately, a tipping point is reached where gains in democratic legitimacy are no longer paid for with losses in organizational effectiveness.

An as yet unrecognized advantage of deliberative approaches to governance and policy formulation is that, when looked at collectively, they constitute a deliberative system that lends a greater degree of coherence to the often messy business of integrating citizen participation into the policy process. When one examines the Table on page 2 closely, one can discern the outlines of a governance cycle. To begin, normative choice based upon the adjudication of hypotheticals requires (of course) that those hypotheticals be drafted. The obvious choice of draftsman is the environmental governance professional. But this need not be an exclusive step in the process. Beyond the legitimating role played by disinterested citizens (as final arbiters), representatives from both the development and conservation sides of the debate can be asked to provide such input as is required to insure that the hypothetical parties represent the arguments of actual stakeholders at their best. In this context, consensus does not mean agreement about the ultimate results of an adjudication. Rather, it is an agreement among interested parties representing a *normative consensus* that the hypothetical case to be presented is valid as a test of their competing philosophical positions.

The next deliberative step, the choice of policy juries among competing paradigms of regulatory policy requires a different sort of consensus. What is required is an agreement among the various participants that the policy choices each is asked to advocate accurately represents their political goals and objectives. Explanatory material provided to juries in support of each policy design must, by general agreement, be grounded in reliable research and valid inference. Certainly, administrative law judges possess the capacity to weigh the adversarial filings of "friends of the court" and

summarize those materials in ways that are adequate to the needs of citizen decision-makers. Judicial institutions have developed extensive bodies of legal doctrine regarding the admissibility of evidence and the appropriate instructions to be given to jurors. This body of knowledge is readily available to any administrator who requires guidance on how to present competing policy paradigms in an even-handed manner to citizen juries that can support a *political consensus* that extends only to the structure of the decision choice that is to be presented.

Third, the policy approach ultimately adopted will require the development of implementation plans that are specific to each region and jurisdiction where the problem underlying the policy arises. For instance, watershed governance may be undertaken within the context of a state or national policy mandate, but its implementation is an outstanding example of the aphorism that policy is procedure. Watershed partnerships in the United States and elsewhere have shown a marked capacity for translating broad policy mandates into environmental governance plans that are durable and workable because they are local and consensual. Deliberative democracy, at this level, does not pretend to impartiality or require it of participants. Involvement in the planning process is voluntary and open to all. The resulting action plan is intended to capture, not an ideal outcome, but a *social consensus* about what compromises and accommodations will be required for those involved to move forward in a fashion that is sufficiently cooperative that the convening authority will not withdraw its support of the partnership.

An additional advantage to viewing deliberative democratic techniques as elements in a governance cycle is that it allows us to address problems of democratic legitimacy. This is particularly true in the area of international law and policy. Habermas (1996) argues that democratic legitimacy results when behavioral rules have the qualities of *normativity* and *facticity*. By this it is meant that a rule can be regarded by those to whom it addressed as both morally justified and practically effective, in other words, as both a social norm and a social fact. International rules suffer, therefore, both from their lack of any genuinely democratic provenance and from their frequent failure to be fully developed and executed. A deliberative governance cycle offers solutions at each of these levels.

Transnational deliberations that allow representative samples of the global public to resolve concrete (but hypothetical) disputes over important ecological values would provide an opportunity to discover areas of normative agreement about basic principles of environmental protection and the use of natural resources. Where normative consensus is lacking, such deliberations would allow for the more accurate "mapping" of citizens' considered opinions – resulting in an "economy of moral disagreement" (Gutmann & Thompson, 2004), which would reduce international tensions and promote cooperation in areas where cooperation is actually possible.

At the level of the development of paradigms of regulatory policy, deliberative polling of representative citizen groups at the national level would allow for the democratic legitimation of choices among the available alternative approaches to environmental protection and governance. If the alternatives presented are each plausible manifestations of a normative consensus identified earlier in the transnational governance cycle, the resulting choices might be expected to constitute a form *of common but differentiated responsibility* that would enjoy greater political viability because it possessed greater democratic legitimacy. James Fishkin's recent success in conducting deliberative polling in the People's Republic of China shows that these techniques do not require high levels of education, economic development, or previous democratic experience.

Finally, at the level of policy execution, the use of stakeholder partnerships to develop implementation plans holds promise for transnational governance. These decentralized approaches to environmental protection and governance have been particularly useful in circumstances where national governments either lacked the capacity to impose national solutions or were reluctant to do so for political reasons. The implication for international law and policy are clear. Where enforcement options are of limited utility or are entirely lacking, voluntary compliance can only be enhanced when those whose conduct is to be regulated are centrally involved in defining what compliance actually amounts to in practice.

So when viewed in a systematic perspective, the model of deliberative policy development presented here presents a coherent picture of a participatory planning cycle that provides a significant level of citizen involvement at each stage of the governance

process. It legitimates and rationalizes the involvement of interest groups and other nongovernmental organizations in the policy formulation. And it lends concreteness and plausibility to the idea of consensus as something more than a political ideal.

Is Deliberation Worth the Cost?

Each of the aforementioned deliberative practices imposes costs, both in terms of financial and personnel resources and in terms of the political risks attendant to broader public participation in environmental governance. Why should professional managers, already short on resources and long on controversy, spend either organizational or political capital on these efforts? Three major justifications suggest themselves.

First, environmental regimes must meet the standard of ecological rationality if they are to be effective in practice. Though not especially bold, this is an important assertion because it carries with it a certain amount of freight. One could describe many forms of rationality (Bartlett, 1987). Some of these forms of rationality are at least partly incompatible. In some instances, they may even conflict in fundamental ways. Moreover, they are not all of the same order of importance. But two of them are critical to this argument--*political rationality* and *ecological rationality*.

Diesing (1962) argues that political rationality takes precedence over other forms because the solution of problems of governance makes possible an attack on other problems within which concerns over other forms of rationality arise. A serious deficiency in political rationality can, therefore, undermine our ability to pursue, much less achieve, any other form of rationality. But Dryzek (1987) views ecological rationality as fundamental. The failure to preserve and promote the integrity of the environmental and the material underpinning of society would render ineffectual, even irrelevant, our efforts to achieve other forms of rationality. Bearing in mind that Diesing did not explicitly consider the status of ecological rationality, it is a small step from Dryzek's argument to ours—that ecological rationality is a Janus-faced concept. It subsumes the concepts of both environmental sustainability and political sustainability, viewing each as an essential element in the long-term protection of humanity's ecological resources and as an essential prerequisite to the pursuit of other forms of rationality

(Baber and Bartlett, 2005).

A second justification for democratic deliberation is that its elitist- and interest-group-driven alternatives are inadequate. To satisfy ecological rationality's need for political sustainability, a more robust form of democracy than contemporary interest-group liberalism is required. Although it may be true that reports of liberalism's death have been greatly exaggerated, that the patient is suffering an illness is generally not disputed. The diagnosis that liberalism is inherently incompatible with environmental protection because it takes human interests as the measure of all values (Matthews, 1991) does not have to be entirely correct for us to recognize that some new form of democracy may be called for. We need only acknowledge that there are real tensions between preservation and conservation--between protection and wise use--and that the consequences of ignoring those tensions are potentially serious.

It is our argument, however, that both elite meritocracy and interest-group oligopoly fail the test of ecological rationality. A meritocracy of science-based elites will ultimately fail to translate its understanding of environmental problems into effective environmental policy. Simply as a practical matter, the dynamics of the policy process require experts to express themselves in ordinary language, to adopt the lay perspective when engaged in collective decision making, and to offer reasons for the positions they take in the public arena that are fully accessible to the other actors that they encounter there and hope to influence (Baber and Bartlett, 2007). To overcome this problem without surrendering their claim to special authority, a meritocracy would have to sell itself to (or actually become) the alternative that Ophuls (1997) has posed it against--an interest-group oligopoly. But that form of governance will also fail to achieve ecological rationality because it is a form of government that is politically unsustainable in modern societies and because it cannot produce the broadly held ecological consensus that successful environmental governance requires. Problems of environmental governance generally are so thoroughly interpenetrated with questions of individual choice that new moral, conceptual, and affective frameworks must be developed (Valadez, 2001). What is required is a mutualistic and cooperative view of nature to which human social, economic, and political life can be reconciled. That result can be achieved only through the creation of institutions of governance that are more (not less) democratic than the

existing practices of interest-group liberalism (Baber, 2004).

Finally, democratic deliberation is justified by a number of developments, often discussed under the general heading of *globalization*, that are impeding the ability of national governments and their subunits to address problems of environmental governance associated with resource regimes and environmental regimes alike. A range of increasingly powerful agents, including nongovernmental organizations, transnational advocacy networks, communities of scientific expertise, and social movements of global reach are challenging the conventional sovereign state for control of the environmental agenda. The resulting tensions are clearly visible in the *transnationalization* of governance as it increasingly becomes the subject of international environmental regimes (Conca, 2005). Problems of soil conservation, water management, and the preservation of species diversity that challenge national and sub-national governmental institutions are merely localized manifestations of the loss of vital ecosystem services at a global scale (Galaz et al., 2008). These challenges manifest themselves at both the sub-national and supranational levels of governance, calling into question basic principles of environmental protection, contending models of environmental regulation, and competing plans of environmental action.

Deliberative democratic processes have immense potential to inform and legitimate environmental governance at each of these levels in ways that respond to the challenges of ecological rationality, popular participation, and globalization (Baber and Bartlett, 2005, 2009). Here we extend the reach of that analysis, placing techniques of democratic deliberation at the disposal of those whose duty it is to regulate the human dimensions of global environmental change. But if environmentalism is to find its "third way," if it is to develop a common language in which to construct environmental regimes possessed of a genuinely democratic provenance, that breakthrough is most likely to be found at the level of practice--in the iterative innovations in problem solving developed by those on the front lines of environmental change, environmental protection, and governance.

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