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Stakeholder Dialogues in Natural Resources Management

Theory and Practice

With 20 Figures

 Springer

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To Luisa and Elina

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Part I
Setting the Scene

Foreword

Participatory Processes for Natural Resource Management

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Need for analytic-deliberative processes

Inviting the public to be part of the decision making process in natural resource management has been a major objective in European and American environmental policy arenas. The US-National Academy of Sciences has encouraged environmental protection agencies to foster citizen participation and public involvement for making environmental policy making and natural resource management more effective and democratic (Stern and Fineberg 1996). The report emphasizes the need for a combination of assessment and dialogue which the authors have framed the "analytic-deliberative" approach. Unfortunately, early public involvement of the public in deliberative processes may compromise, however, the objective of efficient and effective policy implementation or violate the principle of fairness (Cross 1998, Okrent 1998). Another problem is that the public consists of many groups with different value structures and preferences. Without a systematic procedure to reach consensus on values and preferences, the public's position often appears as unclear (Coglianese 1997, Rossi 1997). Participatory processes are thus needed that combine technical expertise, rational decision making, and public values and preferences.

How can and should natural resource managers collect public preferences, integrate public input into the management process, and assign the appropriate roles to technical experts, stakeholders (i.e., socially organized groups that are or perceive themselves as being affected by the decision) and members of the public? Who represents the public? The elected politicians, administrators, stakeholders, or all persons who will be affected by the decision? There is a large amount of individual variance when lay persons are asked to set environmental priorities or to evaluate

different resource management options (Drottz-Sjöberg 1991, Slovic 1992, Boholm 1998).

This introductory paper discusses the potential and requirements for an analytic-deliberative decision making process in the field of natural resource management. It provides some of the theoretical base for the many case studies most of which have been inspired by the model of analytic-deliberative processes. This model of participation attempts to meet two major objectives: first, to enhance the competence in the decision making process and, second, to assign a fair share of responsibility to manage risks to those who are or will be affected by the potential consequences.

The first element: The integration of science

Natural Resource managers are faced with a difficult dilemma: On the one hand, technical and organizational expertise is a necessary but not sufficient condition to make prudent decisions on resource allocation and distribution of opportunities. On the other hand, public perceptions are at least partially driven by biases, anecdotal evidence, false assumptions about resource interactions with the environment, and sensation (Okrent 1998). We live in a pluralist society with different value systems and worldviews. To choose among equally legitimate courses of action becomes an almost insurmountable task since no meta-arguments are available or convincing enough to distinguish valid from invalid claims. This is particularly true for debates on resource management since economic, ecological and social aspects are being affected that have strong links to particular interests. In this situation of value plurality, uncertainty and competing interests, the resolution of scientific debates is particularly difficult to accomplish.

Based on the analyses from theorists of human knowledge and science (see brief reviews in Dietz et al. 1989, Jasonoff 1993, 1998, 2004; Rosa 1998, Wynne 2002) one can draw the following inferences on the required process characteristics that need to be met when making complex choices in resource management:

- Regardless whether one prefers a constructivist or realist perspective on human knowledge about risks (cf. Bradury 1987, Horlick-Jones 1998, Rosa 1998), scientific rationality as framed by methodological consensus among researchers is insufficient in making unambiguous and uncontested claims about the characteristics and potential uses of a specific natural resource management option under investigation (Margolis 1996, Renn 2004).

- In analyzing the potentials of human intervention into natural environments, one needs to include systematic and experiential sources of knowledge (Wynne 1989). Systematic knowledge is necessary to build upon the collected experiences of the past, experiential knowledge to take account of the idiosyncratic features surrounding the specific decision problem and the accumulated expertise of practitioners.
- When contemplating about the acceptability of one management option over another option, one needs to be informed about the likely consequences of each decision option and to be cognizant of the potential violations of interests and values connected with each decision option (Gregory 2004). Although both steps, predicting the likely impacts and evaluating the desirability of each of these consequences, can be separated analytically it is counterproductive to run the two processes in parallel and assign these tasks to different agents, since the answers of the first task co-determines the answers to the second task and vice versa (Jaeger et al. 2001: 243ff.). What is needed is a procedure that integrates both tasks without sacrificing the necessary precision and quality of factual and value judgments that are inherent in both steps.
- Integrating values into resource management decisions requires the input of those people whose interests and values are affected by the decision options (Kunreuther and Slovic 1996). In many instances, these interests and values are so obvious that agencies can act on their behalf without major reassurance that their action is in accordance with the needs and concerns of those whom they serve (Chess et al. 1998). In many environmental decisions, however, it is less obvious what is in the best interest of the people and plural value input is needed to produce a fair and balanced decision (Creighton 1983). If only interests need to be reconciled, involvement of stakeholders may suffice; if broad value judgments or issues of social justice are addressed, representatives of the affected public ought to be involved (IRGC 2005: 53). In both cases such an input requires direct participation efforts beyond the scope of normal decision making procedures based either on agency rules or majority votes by a representational branch of government (Webler 1999).
- Participation is not only a normative goal of democracy, it is also a requirement for rational decision making in situations in which evaluating uncertainty is part of the management effort (Pidgeon 1997). If all society would care about is to reduce the amount of physical harm done to its members, technical expertise and some form of economic balancing would suffice for effective risk management. However, society is not only concerned about risk minimization (Renn 1997).

People are willing to suffer harm if they feel it is justified or if it serves other goals. At the same time, they may reject even the slightest chance of being exposed to a risk if they feel the decision is imposed on them or violates their other attitudes and values (MacLean 1986, Linnerooth-Bayer and Fitzgerald 1996). Context matters. So does procedure of decision making independent of outcome. "Real" consequences are always mediated through social interpretation and linked with group values and interests. Responsive risk management needs to incorporate public values into the decision making process.

The Requirements for Deliberative Processes

Scientific input into resource management decisions are as explained above not sufficient to make prudent choices. First, scientific knowledge in itself is often ambiguous and contested, second it does not include the values and preferences of those who are or will be affected by the decision outcomes. That is why participatory deliberative methods need to be employed in addition to scientific input (Liberatore and Funtowicz 2003). If that is required, how can one select the values or preferences that should guide environmental decision-making? One of the answers to this question can be derived from the theory and practice of discursive deliberation.

The term deliberation refers to the style and procedure of decision making without specifying which participants are invited to deliberate (Stern and Fineberg 1996, Renn 2004). For a discussion to be called deliberative it is essential that it relies on mutual exchange of arguments and reflections rather than decision-making based on the status of the participants, sublime strategies of persuasion, or social-political pressure. Deliberative processes should include a debate about the relative weight of each argument and a transparent procedure for balancing pros and cons (Tuler and Webler 1999). In addition, deliberative processes should be governed by the established rules of a rational discourse. In the theory of communicative action developed by the German philosopher Juergen Habermas, the term discourse denotes a special form of a dialogue, in which all affected parties have equal rights and duties to present claims and test their validity in a context free of social or political domination (Habermas 1970, 1987b). A discourse is called rational if it meets the following specific requirements (cf. McCarthy 1975, Habermas 1987a, 1991; Kemp 1985, Renn and Webler 1998: 48ff., Webler 1995, 1999). All participants are obliged to:

- seek a consensus on the procedure that they want to employ in order to derive the final decision or compromise, such as voting, sorting of

positions, consensual decision making or the involvement of a mediator or arbitrator;

- articulate and critique factual claims on the basis of the "state of the art" of scientific knowledge and other forms of problem-adequate knowledge; (in the case of dissent all relevant camps have the right to be represented),
- interpret factual evidence in accordance with the laws of formal logic and analytical reasoning,
- disclose their relevant values and preferences, thus avoiding hidden agendas and strategic game playing,
- process data, arguments and evaluations in a structured format (for example a decision-analytic procedure) so that norms of procedural rationality are met and transparency can be created.

The rules of deliberation do not necessarily include the demand for stakeholder or public involvement. Deliberation can be organized in closed circles (such as conferences of catholic bishops, where the term has indeed been used since the Council of Nicosea) as well as in public forums. It may be wise to use the term "deliberative democracy" when one refers to the combination of deliberation and public or stakeholder involvement (see also Cohen 1997, Rossi 1997).

What needs to be deliberated? First, deliberative processes are needed to define the role and relevance of systematic and anecdotal knowledge for making far-reaching choices. Second, deliberation is needed to find the most appropriate way to deal with uncertainty and value plurality in natural resource management and to set efficient and fair trade-offs between conflicting goals. Third, deliberation needs to address the wider concerns of the affected groups and the public at large (Renn 2004).

Why can one expect that deliberative processes are better suited to deal with challenges posed by the demand for economically effective, ecologically friendly and socially fair use of natural resources than using expert judgment, political majority votes or relying on public survey data?

- Deliberation can produce common understanding of the issues or the problems based on the joint learning experience of the participants with respect to systematic and anecdotal knowledge (Webler and Renn 1995, Pidgeon 1997);
- Deliberation can produce a common understanding of each party's position and argumentation and thus assist in a mental reconstruction of each actor's argumentation (Warren 1993, Tuler 1996). The main driver for gaining mutual understanding is empathy. The theory of communicative action provides further insights in how to mobilize

empathy and how to use the mechanisms of empathy and normative reasoning to explore and generate common moral grounds (Webler 1995).

- Deliberation can produce new options and novel solutions to a problem. This creative process can either be mobilized by finding win-win solutions or by discovering identical moral grounds on which new options can grow (Renn and Webler 1998: 64ff., DEMOS 2004).
- Deliberation has the potential to show and document the full scope of ambiguity associated with environmental problems. Deliberation helps to make a society aware of the options, interpretations, and potential actions that are connected with the issue under investigation (Wynne 1992, De Marchi and Ravetz 1999). Each position within a deliberative discourse can only survive the crossfire of arguments and counter-arguments if it demonstrates internal consistency, compatibility with the legitimate range of knowledge claims and correspondence with the widely accepted norms and values of society. Deliberation clarifies the problem, makes people aware of framing effects, and determines the limits of what could be called reasonable within the plurality of interpretations (Skillington 1997).
- Deliberations can also produce agreements. The minimal agreement may be a consensus about dissent (Raiffa 1994, Jaeger et al.: 236ff.). If all arguments are exchanged, participants know why they disagree. They may not be convinced that the arguments of the other side are true or morally strong enough to change their own position; but they understand the reasons why the opponents came to their conclusion. At the end the deliberative process produces several consistent and - in their own domain- optimized positions that can be offered as package options to legal decision-makers or the public. Once these options have been subjected to public discourse and debate, political bodies such as agencies or parliaments can make the final selection in accordance with the legitimate rules and institutional arrangements such a majority vote or executive order. Final selections could also be performed by popular vote or referendum (Wehrli-Schindler 1987).
- Deliberation may result in consensus. Often deliberative processes are used synonymously with consensus seeking activities (Coglianese 1997). This is a major misunderstanding. Consensus is a possible outcome of deliberation but not a mandatory requirement. If all participants find a new option that they all value more than the one option that they preferred when entering the deliberation, a "true" consensus is reached (Renn 2004). It is clear that finding such a consensus is the exception rather than the rule. Consensus is either