

Free Executive Summary



Public Participation in Environmental Assessment and Decision Making

Thomas Dietz and Paul C. Stern, Editors, Panel on Public Participation in Environmental Assessment and Decision Making, National Research Council

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Federal agencies have taken steps to include the public in a wide range of environmental decisions. Although some form of public participation is often required by law, agencies usually have broad discretion about the extent of that involvement. Approaches vary widely, from holding public information-gathering meetings to forming advisory groups to actively including citizens in making and implementing decisions. Proponents of public participation argue that those who must live with the outcome of an environmental decision should have some influence on it. Critics maintain that public participation slows decision making and can lower its quality by including people unfamiliar with the science involved. This book concludes that, when done correctly, public participation improves the quality of federal agencies' decisions about the environment. Well-managed public involvement also increases the legitimacy of decisions in the eyes of those affected by them, which makes it more likely that the decisions will be implemented effectively. This book recommends that agencies recognize public participation as valuable to their objectives, not just as a formality required by the law. It details principles and approaches agencies can use to successfully involve the public.

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Executive Summary

Advocates of public participation believe it improves environmental assessment and decision making; detractors criticize it as ineffective and inefficient. The National Research Council established the Panel on Public Participation in Environmental Assessment and Decision Making at the request of U.S. Environmental Protection Agency, the U.S. Department of Energy, and the U.S. Food and Drug Administration, with additional support from the U.S. Forest Service, to assess whether, and under what conditions, public participation achieves the outcomes desired.

The term “public participation,” as used in this study, includes organized processes adopted by elected officials, government agencies, or other public- or private-sector organizations to engage the public in environmental assessment, planning, decision making, management, monitoring, and evaluation. These processes supplement traditional forms of public participation (voting, forming interest groups, demonstrating, lobbying) by directly involving the public in executive functions that, when they are conducted in government, are traditionally delegated to administrative agencies. The goal of participation is to improve the quality, legitimacy, and capacity of environmental assessments and decisions.

- *Quality* refers to assessments or decisions that (1) identify the values, interests, and concerns of all who are interested in or might be affected by the environmental process or decision; (2) identify the range of actions that might be taken; (3) identify and systematically consider the effects that might follow and uncertainties about them; (4) use the best available knowledge and methods relevant to the above tasks, particularly (3); and

(5) incorporate new information, methods, and concerns that arise over time.

- *Legitimacy* refers to a process that is seen by the interested and affected parties as fair and competent and that follows the governing laws and regulations.

- *Capacity* refers to participants, including agency officials and scientists, (1) becoming better informed and more skilled at effective participation; (2) becoming better able to engage the best available scientific knowledge and information about diverse values, interests, and concerns; and (3) developing a more widely shared understanding of the issues and decision challenges and a reservoir of communication and mediation skills and mutual trust.

Conclusion 1: When done well, public participation improves the quality and legitimacy of a decision and builds the capacity of all involved to engage in the policy process. It can lead to better results in terms of environmental quality and other social objectives. It also can enhance trust and understanding among parties. Achieving these results depends on using practices that address difficulties that specific aspects of the context can present.

The panel found that participatory processes have sometimes made matters worse. However, it also found that across a wide variety of environmental assessment and decision contexts, there are practices that can simultaneously promote quality, legitimacy, and capacity.

Recommendation 1: Public participation should be fully incorporated into environmental assessment and decision-making processes, and it should be recognized by government agencies and other organizers of the processes as a requisite of effective action, not merely a formal procedural requirement.

PUBLIC PARTICIPATION PRACTICE

The panel offers four recommendations for carrying out public participation processes that embody six principles of program management, four principles for the conduct of participation, and five principles for integrating science and participation.

Recommendation 2: When government agencies engage in public participation, they should do so with

1. clarity of purpose,
2. a commitment to use the process to inform their actions,
3. adequate funding and staff,
4. appropriate timing in relation to decisions,
5. a focus on implementation, and
6. a commitment to self-assessment and learning from experience.

Recommendation 3: Agencies undertaking a public participation process should, considering the purposes of the process, design it to address the challenges that arise from particular contexts. Process design should be guided by four principles:

1. inclusiveness of participation,
2. collaborative problem formulation and process design,
3. transparency of the process, and
4. good-faith communication.

In environmental assessment and decision making, special attention must be paid to scientific analysis and the uncertainty in that analysis.

Recommendation 4: Environmental assessments and decisions with substantial scientific content should be supported with collaborative, broadly based, integrated, and iterative analytic-deliberative processes, such as those described in *Understanding Risk* and subsequent National Research Council reports. In designing such processes, the responsible agencies can benefit from following five key principles for effectively melding scientific analysis and public participation:

1. ensuring transparency of decision-relevant information and analysis,
2. paying explicit attention to both facts and values,
3. promoting explicitness about assumptions and uncertainties,
4. including independent review of official analysis and/or engaging in a process of collaborative inquiry with interested and affected parties, and
5. allowing for iteration to reconsider past conclusions on the basis of new information.

IMPLEMENTING THE PRINCIPLES

There is no specific set of tools or techniques that constitute “best practices” for all contexts, or even for meeting particular difficulties. Rather,

the best technique will be situation-dependent, and practices need to be sensitive to changes that occur during the process.

Recommendation 5: Public participation practitioners, working with the responsible agency and the participants, should adopt a best-process regime consisting of four elements:

1. diagnosis of the context,
2. collaborative choice of techniques to meet difficulties expected because of the context,
3. monitoring of the process to see how well it is working, and
4. iteration, including changes in tools and techniques if needed to overcome difficulties.

This process is illustrated in Figure ES-1.

NEEDED RESEARCH

Recommendation 6: Agencies that involve interested and affected parties in environmental assessments and decision making should invest in social science research to inform their practice and build broader knowledge about public participation. Routine, well-designed evaluation of agency public participation efforts is one of the most important contributions they can make. Because public participation makes a useful test bed for examining basic social science theory and methods, the National Science Foundation should partner with mission agencies in funding such research, following the model of the successful Partnership for Environmental Research of the National Science Foundation and the Environmental Protection Agency.

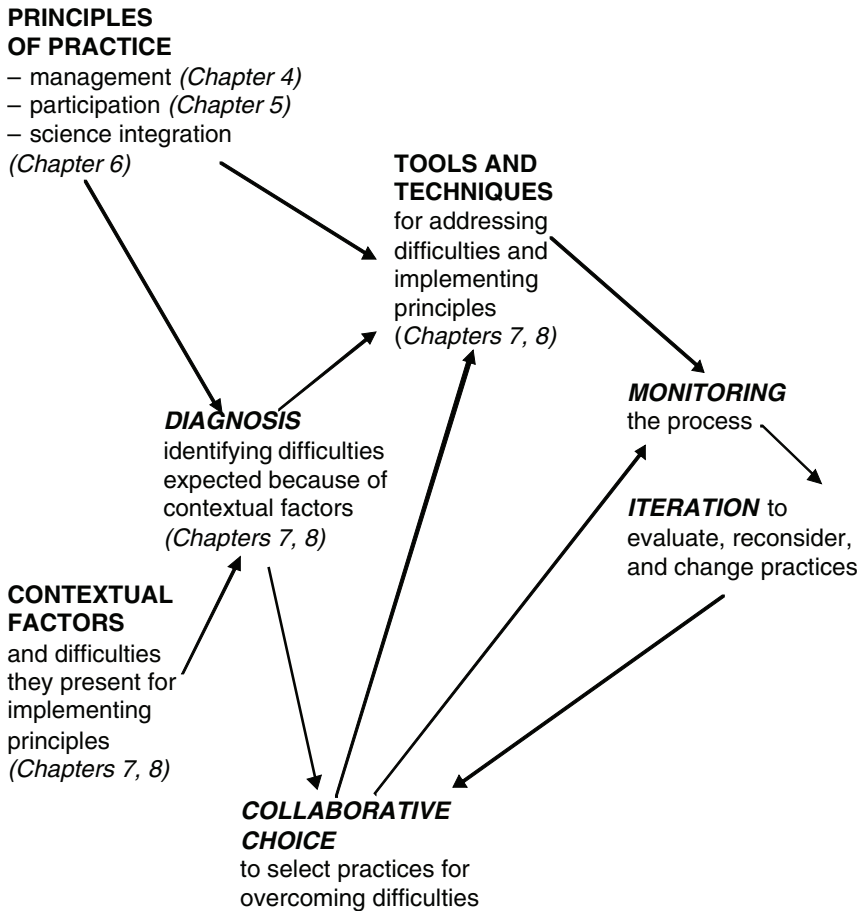


FIGURE ES-1 Elements of best process for public participation in relation to the principles of good public participation and variations in context.

NOTE: The four elements of best process are indicated in italics. Arrows indicate lines of influence: principles and contextual factors contribute to diagnosis; principles, diagnosis, and collaborative choice influence the selection of tools and techniques; the tools and collaborative choice determine what is monitored and how; monitoring leads to iteration; and iteration, via collaborative choice, feeds back to the selection of tools and techniques.

PUBLIC PARTICIPATION IN ENVIRONMENTAL ASSESSMENT AND DECISION MAKING

Panel on Public Participation in
Environmental Assessment and Decision Making

Thomas Dietz and Paul C. Stern, *Editors*

Committee on the Human Dimensions of Global Change
Division of Behavioral and Social Sciences and Education

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Preface

This report began with two simple ideas. One was that the environmental problems of the 21st century can be effectively addressed only by processes that link sound scientific analysis with effective public deliberation. The second was that analysis and deliberation in environmental assessment and decision making can be improved by careful examination of scientific evidence.

Discussions about public participation have become especially intense in the last half century. Novel methods of public engagement have emerged to complement more venerable modes of participation, such as voting, lobbying, and protesting. In response to the new practices, a growing literature has offered theory to define and justify public participation, has proposed tools and strategies for participation, and has begun to examine what happens in participation processes. But this literature, while substantial in size and including much work of high quality, has not been cumulative. It provides no overall assessment of whether or not, in general, public participation enhances environmental assessments and decisions; those designing participation processes have trouble extracting lessons from it; and it does not reflect a consensus about the key questions requiring further research.

This study attempts to address what have been missing: to provide an overall assessment of the merits and failings of participation, to offer guidance to practitioners, and to identify directions for further research. Participation research and practice is so dynamic that our analysis is somewhat dated even as it is published, yet I believe we have made some progress in synthesizing across a diverse literature. We have found that participation can be an invaluable part of environmental assessment and decision mak-

ing. Although there are no simple “best practices” that provide universal guidance in designing participation, there are principles and “*best processes*” that can enhance the effectiveness of participation. We have taken a few steps toward structuring the research literature. Our hope is that this report will prove useful for those who are assessing participation policy and practices, those who design and conduct participation, and those who study participation. We know it is not the final word, but we believe it lends some coherence to future conversations and provides a starting point for further analysis.

As one would expect of a work on participation, many have participated in creating the final product. It is, first and foremost, the work of the panel and Paul Stern, the study director. The study draws together diverse strands of literature and bridges across diverse disciplines and substantive domains. In doing so, the panel and Paul have worked very hard and exhibited great patience and a wonderful openness to synthesis.

We conducted two scoping workshops before the study began and one workshop midstream in the study. The participants in those workshops—scholars, practitioners, and nonspecialists—had a profound influence in shaping the study. We thank first the participants in our July 2001 workshop: Bonnie Bailey, Water Environment Research Foundation; Thomas C. Beierle, Resources for the Future; Mohandas Bhat, U.S. Department of Energy; Steve Blackwell, Agency for Toxic Substances and Disease Registry; Judith Bradbury, Pacific Northwest National Laboratory; Frank Clearfield, National Resource Conservation Services’ Social Sciences Institute; Martha Crosland, U.S. Department of Energy; Katherine Dawes, Office of Environmental Policy Innovation, U.S. Environmental Protection Agency; Michael Donnelly, Radiation Studies Branch, Centers for Disease Control and Prevention; John Hogan, Office of Food Safety, U.S. Department of Agriculture; Debora Martin, U.S. Environmental Protection Agency; Michael Sage, Centers for Disease Control and Prevention; Michael Slimak, U.S. Environmental Protection Agency; Peter Smith, U.S. Department of Agriculture; and Elizabeth White, U.S. Department of Energy; and Susan Wiltshire, JK Research Associates.

We also thank the participants in our December 2001 workshop: Laurel Ames, Sierra Nevada Alliance; John Applegate, University of Indiana; L. Katherine Baril, Washington State University; Thomas C. Beierle, Resources for the Future; Sue Briggum, WMX Waste Management; Fred Butterfield, U.S. Department of Energy; Susan Carillo, U.S. Environmental Protection Agency; Martha Crosland, U.S. Department of Energy, Samantha Dixon, City of Westminster, Colorado; Paul Gagliardo, Metropolitan Wastewater Public Works, City of San Diego, California; Troy Hartley, RESOLVE, Washington, DC; Kenneth Jones, Green Mountain Institute for Environmental Democracy; Jeffrey Jordan, City of South Portland,

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We also commissioned several papers that were critical to the report by providing detailed analyses of public participation in what we call “families” of cases—cases that were similar in the environmental issues addressed and in the institutional contexts in which they were carried out. We thank the authors for their work, without which we could not have come as far as we did:

- *Evaluating Public Participation in Environmental Decisions*; Judith Bradbury, Pacific Northwest National Laboratory
- *Negotiated and Conventional Rulemaking at EPA: A Comparative Case Analysis*; Laura Langbein, American University
- *Watershed Partnerships: Evaluating a Collaborative Form of Public Participations*; Mark Lubell, University of California, Davis, and William D. Leach, California State University, Sacramento
- *Stakeholder Involvement in the First U.S. National Assessment of the Potential Consequences of Climate Variability and Change: An Evaluation, Finally*; Susanne C. Moser, National Center for Atmospheric Research

Finally, the sponsors of the study at the Forest Service of the U.S. Department of Agriculture, the Food and Drug Administration, the U.S. Department of Energy, and, especially, the U.S. Environmental Protection Agency have shown a deep commitment to effective public engagement by supporting this study at a time of budget constraints and shifting priorities.

We believe that our study has had benefits beyond this volume and that it will continue to do so. For example, it established new communication links between the National Research Council and organizations involved in addressing the practical challenges of environmental public participation. It provided educational opportunities for five Christine Mirzayan Fellows at the National Research Council during the course of the panel’s work: Rebecca Zarger, Rebecca Romsdahl, Loraine Lundquist, Rachael Shwom, and Hannah Brenkert-Smith. Their insights and engagement were of great value to the project. And we hope it will help promote the continuation of

the dialogue between theory and practice that was so helpful during the course of our study.

This report has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the Report Review Committee of the National Research Council. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the deliberative process.

We thank the following individuals for their review of this report: Richard N. Andrews, Department of Public Policy, University of North Carolina; Sue Briggum, Federal Public Affairs, WM Waste Management, Washington, DC; Archon Fung, John F. Kennedy School of Government, Harvard University; Jerome B. Gilbert, President's Office, J. Gilbert, Inc., Orinda, CA; Robin Gregory, Senior Researcher, Decision Research, Canada; Kathy Halvorsen, Forest Resources and Environmental Science and Social Sciences, Michigan Technological University, Houghton, MI; Evan Ringquist, Public and Environmental Affairs, Indiana University; Douglas J. Sarno, The Perspectives Group, Inc., Alexandria, VA; Mark E. Warren, Department of Political Science, University of British Columbia; and Julia Wondolleck, School of Natural Resources and Environment, University of Michigan.

Although the reviewers listed above have provided many constructive comments and suggestions, they were not asked to endorse the conclusions or recommendations nor did they see the final draft of the report before its release. The review of this report was overseen by Lorraine M. McDonnell, Department of Political Science, University of California, Santa Barbara, and Susan Hanson, School of Geography, Clark University. Appointed by the National Research Council, they were responsible for making certain that an independent examination of this report was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this report rests entirely with the authoring committee and the institution. Nonetheless, we thank the reviewers and the review coordinator for diligent analysis that greatly improved the quality of the report.

Thomas Dietz, *Chair*
Panel on Public Participation in
Environmental Assessment and Decision Making

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