



GOINGS ON

RFF Scholars Studying Influence of Stakeholder Involvement in Environmental Decisionmaking in the United States

Over the past decade, stakeholders—individual citizens, members of advocacy groups, and regulated industry—have come to play an increasingly regular, public role in environmental decisionmaking in this country. Once ignored, stakeholders now routinely offer their views on the structure and direction of regulations and projects at the state and federal levels. There is growing recognition that all sides bring important perspectives to the table, from the birdwatcher worried about habitat loss to the plant engineer seeking a flexible approach to meeting emissions limits.

The U.S. Environmental Protection Agency (EPA), under Administrator Carol Browner, has heavily promoted the growth of public participation in environmental decisionmaking. But now, with several years of experience to draw from, the agency's Science Advisory Board (SAB) is raising questions about whether the inherently "political" nature of such processes may sacrifice substantive quality for political comity. In particular, there is concern that good science will not be used adequately in these processes nor reflected in their decision outcomes.

SAB has been convening a series of workshops on the role of science in stakeholder processes as part of its effort to draft a report for EPA Administrator Browner on the subject. In the second workshop of the series, RFF Fellow Tom Beierle outlined preliminary results from his research on the success of stakeholder processes, focusing on the question of particular importance to the SAB—whether these processes have consistently led to decisions of lesser (or greater) substantive quality.

Beierle, along with RFF researchers Jerry Cayford and David Konisky, analyzed over 240 case studies of stakeholder involvement in environmental decisionmaking in order to identify what value public participation has added to decisionmaking. Approximately 100 attributes of each case were coded, and the data were pooled for quantitative and qualitative analysis.

To a great extent, the studies Beierle reviewed do not consist of high-profile, federal-level decisionmaking, but rather relatively routine cases of planning, management, and implementation activities carried out by environmental and natural resource agencies at many levels of government. The cases reflected an often-misunderstood reality of environmental decisionmaking: namely, that much of it happens at the state and local levels, either through state and local programs or delegated federal programs.

About half of the cases dealt with pollution-related issues, such as environmental cleanup, facility siting, and health assessment, and the other half with natural resource issues, including habitat management and land use planning. Around 80% of the cases dealt with site- or region-specific issues rather than overarching policy questions, and more than half described decisionmaking at the state and local levels.

Little Need for Concern

"Overall, the case study record suggests that there should be little concern that stakeholder processes are resulting in substantively inferior decisions," Beierle told the SAB panel. No matter what criteria are used to measure the substantive

quality of decision, the majority of cases contain evidence of increasing, rather than decreasing, quality, he said. "Even if we narrow the definition of quality to criteria reflecting only the technical and scientific aspects of decisions, there is still evidence—although much less and more indirect—that stakeholder processes are not resulting in inferior decisions. Moreover, it appears that processes that stress consensus score higher on substantive quality measures than those that do not."

The data suggest interesting relationships between the political and technical aspects of stakeholder-based decisionmaking, Beierle said. "It may be that the process of negotiation and consensus seeking actually works to increase the quality and amount of technical information underlying decisions," he said. "Moreover, simply asking how we should measure substantive quality raises interesting questions about what a 'quality' decision is in the first place."

Beierle's research is part of a larger project at RFF on public participation in environmental decisionmaking funded by the National Science Foundation. The larger project looks not just at the question of the substantive quality of decisions, but also at the ability of stakeholder-based processes to educate and inform the public, incorporate public values in decisionmaking, resolve conflict, and build trust. A final report will be issued next year; for more information on RFF's work in this area, visit our Web site, at http://www.rff.org/proj_summaries/99files/davies_envdecmaking.htm.



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RFF Scholar on World Health Organization Task Force Investigating New Approaches to Fight Malaria

Each year, over 300 million people contract malaria and nearly one million people die from the disease. Malaria, caused by protozoan parasites that develop in the guts of mosquitoes, is mainly confined to Africa, Asia, and Latin America, where the control of malaria transmission and effective treatment is hampered by inadequate health planning and poor socioeconomic conditions.

In the past few years, the situation has become even more severe, as increases in parasites' drug resistance have rendered commonly used antimalarial drugs inef-

fective. However, the use of combinations of antimalarial drugs has shown some success in slowing down pathogenic resistance. Obviously, treatment that combines drugs is more costly than single drug treatment, an issue of particular concern in very poor, rural populations—areas that are also particularly hard-hit by malaria.

To date, little research has been done on the sociological and economic benefits of combination therapy. The World Health Organization (WHO) is working to address this issue, as part of a larger effort to curb the spread of malaria worldwide. RFF Fellow Ramanan Laxminarayan has been serving on the WHO Task Force on Drug Resistance and Policies along with anthropological, medical, and drug procurement experts to widen the understanding of the costs and benefits of combination therapy.

Focus on Artemisinin, Successful Chinese Herbal Remedy

The WHO team is specifically focusing on the use of the drug artemisinin and its derivatives. In Thailand and Vietnam, combining artemisinin and its derivatives with other antimalarial drugs has been effective in accelerating recovery, reducing transmission, and delaying resistance development. Artemisinin has also been used successfully in herbal remedies in China for over 2,000 years. Recently, the U.S. Food and Drug Administration has approved it for the treatment of malaria.

The WHO task force will oversee implementation trials in six countries in Africa. These trials will help assess the effective-

ness of combination therapy in reducing the transmission of malaria and curtailing the evolution of parasite resistance. Further, the trials will help measure the private and social economic benefits and costs of using combination therapy with artemisinin derivatives.

Laxminarayan's specific role on the task force is to oversee the economics component of these trials, which will help determine if these benefits are large enough to justify the associated increase in the cost of treating malaria. He also reviews study proposals and trains workers at specific study sites on the role of economic analysis in making the case for combination therapy.

Editor's Note

In the summer issue of *Resources*, we announced the arrival of Sandra Hoffmann, a new fellow in RFF's Center for Risk Management. Her law school was listed incorrectly; she graduated from the University of Michigan Law School. In the same issue, the article on marine protected areas incorrectly described the IUCN. The acronym stands for the World Conservation Union.

The next issue of *Resources*, Winter 2001, will appear in early January. We'll update you on developments at the upcoming Conference of Parties to the UN Convention on Climate Change (COP-6). We will also preview new work by RFF researchers on biodiversity as a primary land use; the relationship among resource quality, poverty, and population growth in India; and forestry policy.

WHO/TDR/CRUMP



Navrongo Hospital, Ghana: Two young mothers sit with their infant children (who are sick with malaria), holding attendance cards, as they wait for medical attention for their children.