

### III. PRIOR SCHOLARLY WORK ON PUBLIC PARTICIPATION<sup>1</sup>

Problems of environmental risk have been identified as some of the most difficult challenges facing governments today. They both incorporate and transcend matters of science, technology, and politics, confronting, as they must, issues of scientific uncertainty, unproven technologies, conflicting interests, values, and preferences, and large time and spatial scales (Renn, Webler, and Wiedemann, 1995). The distribution of environmental risks and disagreements about their acceptability have been major sources of social conflict in the latter half of the 20th century.

In the U.S., demands and requirements for public participation in environmental policy and decision-making emerged in the midst of the social activism of the 1960s (Shepherd and Bowler, 1997). The National Environmental Policy Act (NEPA) of 1969 required federal agencies to conduct environmental impact assessments for proposed major activities and began to institutionalize public involvement in environmental decision-making through its requirements for public participation, limited and ill-defined as they were. Citizens' rights to information and participation expanded over the next two decades with the Freedom of Information Act and worker and community right-to-know requirements established in workplace regulations and environmental legislation. By the late 1980s, public involvement was an accepted dimension of environmental policy and decision-making at all levels.

#### A. Rationale

The theoretical basis of and justification for public participation is well described (Fiorino, 1989; Folk, 1991; Taylor, 1991; Laird, 1993; National Research Council, 1996). In democratic societies, governmental authority derives "from the consent of the governed," and public participation is seen as both morally and functionally integral to such fundamental democratic values as political equality, legitimacy and accountability of government, and social responsibility among citizens (Renn et al., 1995). In this context, public participation performs at least three core functions: (1) it helps ensure that governmental institutions are responsive and accountable to its citizens; (2) it creates venues for individuals and groups to influence decisions that affect them, while enhancing their competence and capacity to do so; and (3) through all this, it provides stability to the democratic system. It is suggested that public participation also helps strengthen the social fabric of communities by creating opportunities for learning and developing interpersonal relationships and mutual understanding; and for mobilizing,

---

<sup>1</sup>This review is meant to convey a sense of the origins, use, and status of public participation in environmental risk issues. It is not intended to be a comprehensive survey of research and scholarship in this area.

engaging, and empowering citizens to act in their own interests and in the broader interests of their communities.

Beyond these normative rationales, it is argued that public participation also performs both substantive and instrumental functions. Public participation facilitates the contribution of essential community-based knowledge, information, and insight that is often lacking in expert-driven risk processes. It can also enhance the efficiency of administrative decision-making; contribute to conflict resolution; create support for and acceptability of agency actions; facilitate implementation of decisions; and generally, lead to more rational and legitimate decisions about risk (Fiorino, 1990; National Research Council, 1996). It has been suggested that one form of participation -- stakeholder involvement processes -- performs a sort of "social peer review" function, which the convener hopes will legitimate decisions and make them more socially acceptable (Yosie and Herbst, 1998).

While these rationales provide strong conceptual bases for public participation, public demand for participation in government decision-making has increased as trust and confidence in government, other major institutions, and the professions has eroded (Hadden, 1990; Kasperson, 1994; Berman, 1997). This "decline of deference" is clearly visible in matters relating to environmental risk (Laird, 1989). The public is loathe to trust a government that failed to prevent (and, indeed, was sometime responsible for creating) environmental contamination (Edelstein, 1988). It is also distrustful of scientific and technical experts from a variety of public and private institutions who have been slow to acknowledge hazards and quick to minimize risk, often preferring to wait for more scientific evidence before taking action deemed to protect the public interest. While in the past, these experts have proffered their evidence and opinions under the banner of neutrality, it is now generally acknowledged that science is not value-neutral or objective --especially in terms of how it makes assumptions, frames problems, or, at times, reports findings (NRC, 1996). The public is well aware that science and technical expertise can be politicized (Nelkin, 1975; Fiorino, 1989; Eden, 1996). They know that interpretation of scientific evidence does not occur in a vacuum -- that it cannot be isolated from the personal, social, and political context of the individual providing the interpretation (Ashford, 1988). The underlying goals and assumptions of science and technocratic processes value cost minimization, efficiency, and scientific rationality (Nelkin, 1984; Folk, 1991), and these factors may be at odds with concerned and angry citizens who may view environmental contamination as an assault on the health, welfare, and way of life of themselves, their families, and communities.

At the same time, increased transparency of government decision making, along with the diffusion of information technology, decentralization of decision making in large institutions, and the general popularity of stakeholder involvement processes have provided additional impetus for more interactive and participatory forms of institutional decision making (Yosie and Herbst, 1998). Government's tilt towards "reinvention"

and industry 's towards "re-engineering" also favor use of "stakeholder involvement" processes (Yosie and Herbst, 1998).

## B. What is public participation?

Despite the general acceptance of public participation in decision-making around environmental risk, it is not entirely clear what the concept entails and how might be distinguished from related constructs, e.g., public involvement, community participation, community involvement, and stakeholder involvement. There is little legislative guidance on this issue. Congress has delegated the task of implementing its vaguely stated requirements for public involvement/participation to the administrative agencies. Scholars and public participation practitioners have provided additional insights.

*What 's in a word?* The terms *participation*, *involvement*, and *engagement* are used more or less synonymously to denote a process by which individuals and groups come together in some way to communicate, interact, exchange information, provide input around a particular set of issues, problems, or decisions, and share in decision-making to one degree or another. The extent to which the interaction can be translated into influence on decision-making [and the extent of shared decision-making] has been discussed by Arnstein (1969), in terms of citizen power, Hance et al., (1988), in terms of a continuum from complete citizen to complete agency power, and by English et al. (1993) in terms of "stakeholder" influence. Government-sponsored public participation efforts have spanned these conceptual ladders of participation -- from instances in which agencies have already made their decisions and use public participation for window dressing to forums in which the public, the community, or involved stakeholders have been able to exert considerable influence on the decision outcome -- perhaps even reversing a government decision. The historical deficiencies of public participation processes have been well criticized (see, for example, Kasperson, 1986; Fiorino, 1989; Peelle, 1991).

Definitions of and distinctions among *community*, *public*, and *stakeholder* can be found in the literature on public participation -- but these terms are not used consistently and may confuse rather than clarify understanding. It is generally agreed that *the public* is not any one body, but rather a collection of individuals and groups (different *publics*) that can be characterized as organized or unorganized, professional or amateur, grassroots or institutional and attentive or inattentive to the issues at hand (Peelle, 1995). Historically, public participation has not differentiated among members of the public. In this sense, the public in public participation is a broad construct. In contaminated communities, however, the public participants did not generally include regulators or PRPs.

Communities, on the other hand, have been defined as groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people. (CDC/ATSDR, 1997). From a sociological perspective,

the notion of community refers to a group of people united by at least one common characteristic. In this sense, a community is part of a larger public. In the environmental literature, the term *community* often refers to groups of people living near or affected by the environmental contamination. In this sense, there may be a variety of sub-communities whose interests and views about the contamination vary. They include (1) those whose health and/or property have been affected directly or are at risk, (2) the business community whose financial risk may be affected by their location in or proximity to a contaminated area, and (3) the local government and citizen taxpayers who are not affected by the contamination directly but may be responsible for shouldering the economic burden of cleaning it up. The characterization of community will likely vary by site (English, 1991).

In a practical sense, *stakeholders* are often (but not always) representative members of one of the organized, attentive publics. They also are part of one or more communities in that they have a special interest/stake in the issue at hand. For English et al. (1993), stakeholder involvement is more inclusive and targeted than public participation. These processes tend to represent the full range of interests in the contaminated site. In addition to 1) those living or working near the site whose health and welfare may be affected by the contamination, stakeholder processes also encompass 2) those with economic interests in the site and its cleanup, including local government, the local business community, and the tax-paying public; and 3) those with a more indirect interest in the site, such as agency officials, cleanup contractors, national environmental groups, and the media. Stakeholder processes generally involve representatives of organized constituencies or institutions -- industry, labor, environmental groups, governmental regulators, local governments.

Clearly, publics, communities, and stakeholders overlap -- and they are often defined functionally for the purposes of participatory processes. Although in some cases, their definitions may be distinctions without a difference, in other cases, the terms may blur or confuse very important distinctions. Despite its current cache, stakeholder involvement is *not* the same as public participation (English et al., 1993). Not all of "the public" are stakeholders in a particular situation, nor are stakeholders limited to "the public" (English et al., 1993). Indeed, with its focus on institutional and organizational constituencies, stakeholder involvement runs the risk of ignoring the affected, but unorganized and inactivate, public. Moreover, these processes may be dominated by the most powerful vested interests/stakeholders, effectively diluting the voices of the least powerful members of the community.

### C. What is successful public participation?

With governmental agencies and private industry embracing public participation generally and stakeholder involvement more specifically, there is considerable interest

in examining whether or not these efforts have been or can be successful. The issue of "success" has been addressed conceptually by many scholars, who have proposed a host of evaluative criteria. Definitions of success are complicated, because there is a diversity of goals and expectations for public participation processes and mechanisms. In this sense, success is relative and site-specific; it varies with the views of the participants and sponsors and may be context-dependent (English, 1991). However, researchers, scholars, and practitioners have offered definitions of and prescriptions for public participation, as well as criteria for evaluating success.

Many have suggested the application of a normative yardstick when measuring the success of public participation processes, often buttressed by theories of democracy and justice. Webler (1993) has proposed fairness and competence as the metaethical basis and criteria for evaluating public participation. Building on the work of Jürgen Habermas and his theory of communicative action (Habermas, 1984, 1987), Webler suggests that "right" participation encourages multi-way communication; is consensual and non-hierarchical; requires respect for individual autonomy; relies on citizens' reasonableness; and promotes critical self-reflection. Laird (1993) agrees that the learning process is central to participation in scientific and technological policy issues and proposes an integrative form for effective participation called participatory analysis. Fiorino (1990) also endorses the basic value of discussion in public participation, which he sees as reinforcing citizen autonomy and sense of improvability through the promotion of individual reason, judgement, and choice. In addition, he notes that participation theory suggests other criteria for evaluating mechanisms as democratic processes: the direct involvement of "amateurs" in decision making, shared collective decision making, and equality of participation. Eden (1996) also defines truly "public" participation as lay involvement. Among their suggested criteria, Syme and Sadler (1994) include the normative criterion of interactive justice, which might include the extent to which participants believe they have gained an adequate degree of knowledge about and control over the issue at hand. In her discussion of risk perception, Hadden (1990) also notes the importance of mechanisms that enhance control and equity. Shepherd and Bowler (1997) include the democratic ideal of citizen representation in their analytical framework for examining the effectiveness of public participation programs. English et al. (1993) suggest that the ideal outcome of stakeholder involvement is a normative consensus. They also propose a set of ethical criteria to be used when designing and later evaluating stakeholder involvement processes, including representativeness, impartiality, accountability, confidentiality, transparency, and recognition of promises. Vaughan (1995) emphasizes the role of both distributive and procedural justice in governmental decision making, parameters of particular importance to the environmental justice movement.

Many researchers propose evaluative criteria based more on participants' goals and expectations for the particular process than on the more universal theory-based concepts described above. Their goals and criteria generally fall into two broad categories -- process and outcome (Chess, 1999), although they may reflect elements

of normative theories. Laird (1993), for example, derives a set of criteria from the democratic theories of pluralism and direct participation. These criteria include the number of groups/individuals brought into the process, opportunity for learning and improved understanding, access to relevant officials, equality of resources, and degree of coercive influence. Weblert's metaethical criteria of fairness and competence include many procedural dimensions, such as providing all participants with an equal chance to influence the agenda and rules for participation.

Process goals focus primarily on means rather than ends, and the criteria used to evaluate success examine a variety of procedural aspects of the participatory programs. Lach et al. (1996) propose such process indicators as accessibility to the decision making process, diversity of views represented, opportunities for participation, information exchange, and identification and integration of concerns. They go on to suggest very concrete metrics, such as early involvement of stakeholders, number of options identified, number/types of participants, decision maker presence at meetings, availability and clarity of materials, etc. Syme and Sadler (1994) discuss issues of procedural justice, and suggest such criteria as independence of the facilitator. English et al. (1993) suggest operational criteria for stakeholder involvement mechanisms that include inclusiveness, adaptability, amendability, resiliency, durability, and generalizability. Yosie and Herbst (1998) suggest that process indicators are those factors that add value to a decision making process.

For some researchers, scholars, and practitioners, the success of a public participation effort can and should be judged in terms of results or outcomes. This is trickier, because there may be many preferred outcomes. For the agency, outcome success may mean public support for its plans/decisions, conflict resolution, or ease of implementing decisions. The community, on the other hand, may measure success in terms of the extent to which it is able to achieve its cleanup goals or alter and even block agency proposals. The National Research Council (1997) and the Presidential/Congressional Commission on Risk Assessment and Risk Management (1997) suggest that public participation will lead to better decisions. Lach and Hixson (1996) propose such outcome indicator as project/decision acceptability, project efficiency, cost avoidance, and mutual learning and respect. Other important outcomes also include improved understanding (Laird, 1993); conflict resolution (Shepherd and Bowler, 1997; Yosie and Herbst, 1998); consensus (Elder, 1982; Fiorino, 1990; English et al., 1993); influence on and participation in decision making (Lynn, 1987; Fiorino, 1990; Kathlene and Martin, 1991), and participant satisfaction with the outcome (Mazmanian and Nienaber, 1979).

In their examination of 14 empirical studies of one of the more popular forms of public participation -- the citizen advisory committee -- Lynn and Busenberg (1995) lay out the definitions and measures of success used by different investigators. They found a mix of both process and outcome criteria. Chess and Purcell (1999) also explore process and outcome goals used in 22 empirical studies of three public participation mechanisms -- public meetings, workshops, and citizen advisory committees. Of these,

16 used both process and outcome criteria and five used only process criteria. Only one study, which examined two situations, used an outcome criteria (influence on decision) as the sole measure of success. These findings suggest a clear preference for evaluating both process and outcome goals when assessing the success or effectiveness of different public participation mechanisms. Indeed, the authors advocate methodologic pluralism as a way to overcome the limitations of any one approach (Chess and Purcell, 1999). Yosie and Herbst (1998) interviewed 37 individuals with extensive experience in stakeholder involvement processes and also found agreement on the need for both process and outcome evaluative measures. There was, however, little consensus on the nature or weighting of the measures.

Schweitzer et al. (1996) developed 17 different definitions for success in public participation programs based on their interviews with key internal and external stakeholders at five DOE facilities, along with their review of the literature. They grouped these definitions into five categories dealing with: (1) the decision making process; (2) the effects of public participation on stakeholder understanding and attitudes; (3) the effects of public participation on environmental management decision; (4) the effects of environmental management decision on site conditions; and (5) the effects of environmental management decisions on stakeholders' objectives. They suggest that the extent of success for most definitions can be measured reasonably well by both objective and subjective performance indicators. They also note that complexity of DOE environmental management activities, the tremendous diversity of stakeholder groups, and the variety of interests within these groups argue against the oversimplified use of any one definition.

Theoretically and empirically, it seems that public participation has both procedural and outcome goals and that its "success" should and can be assessed in terms of both.

#### D. What Accounts for Success?

Even if success can be defined and measured, there is both a practical need and academic interest in identifying factors associated with success and failure. Peelle et al. (1996) have summarized the long list of factors commonly identified in the literature and case studies as associated with successful public participation. These include such factors as: early involvement, inclusiveness, two-way communication, adequate information and resources, particular types of mechanisms, degree of citizen control, incentives and/or compensation, prior community experience; agreement on goals; etc.

Peelle et al. (1996) group these factors into five categories: (1) process factors; (2) organizational context; (3) strategic considerations; (4) contextual factors [the social, economic, historical, and political context of the situation]; and (5) unique factors. Applying these factors to case studies reported in the literature and to their own considerable field data, they go on to develop a comprehensive framework for

evaluating factors leading to successful public participation by categorizing them as: (1) essential in most cases; (2) essential in some cases; (3) helpful but not always required; and (4) important in specific/unique circumstances. This analysis leads the authors to conclude that the following factors are essential in most cases:

- ! Agency clarity on goals and stakeholder roles in public participation
- ! Top management commitment to the public participation process
- ! Manager/leader goes beyond legal minimum
- ! Agency responsiveness to stakeholders
- ! Two-way communication and education
- ! Interactive and iterative public participation
- ! Adequate resources
- ! Development of provisional trust between agency and public
- ! Giving priority to trust building actions
- ! Openness of the agency

#### E. Mechanisms for Public Participation

The diversity of mechanisms and vehicles for public participation and stakeholder involvement is considerable, and there is substantial commentary on their advantages and limitations, successes and failures. This report does not provide an exhaustive review of these various mechanisms. Rather, we describe some of the more salient features and/or issues surrounding use of the more frequently used vehicles and refer the reader elsewhere for more detailed analysis and discussion.

*Public hearings/meetings* are perhaps the most traditional and familiar form of public participation. Hearings are often required by law and agencies have used them historically to announce and defend their proposals and plans. Advantages are that these forums are relatively easy to convene, are open to everyone, provide an opportunity for citizens to learn about agency intentions, and provide a form for concerned or affected citizens to present their views and possibly affect decisions. Potential disadvantages include their pro forma nature and tendency to occur late in the decision making process; the possibility that they may be dominated by organized interests, the most outspoken critics in the community, and/or individuals most at ease with public speaking in the community. Public hearings and meetings often invite posturing and rarely have the time needed for meaningful discussion. For more information, see Mazmanian and Nienaber (1970), Rosener (1982), Fiorino (1990), Webler and Renn (1995), National Research Council (1996).

*Citizen Advisory Committees, Task Forces* may be convened to examine one or more particular issues, provide ongoing advice to an agency or organization, and/or make recommendations on specific issues. Participants in these types of mechanisms have the advantage of meeting over time, allowing for more in-depth examination of issues. This facilitates the accumulation of a common base of information, the creation of

relationships, and the development of mutual understanding, respect for differing views, and common ground. These types of mechanisms frequently operate via consensus. Concerns relate to their limited inclusiveness, representativeness, degree of autonomy and independence from the sponsoring agency, high level of commitment required of members, a need for technical expertise, and agency use of the group's recommendations. See, for example, Lynn (1987), English et al. (1993), Lynn and Busenberg (1995), Lynn and Karetz (1996), Vari (1996), National Research Council (1996).

*Citizen Surveys* have been used to complement and supplement other public involvement mechanisms. They generally are used to solicit citizens' views, opinions, knowledge, and perceptions of particular issues. They may be targeted or rely on random sampling procedures. The method has the advantages of obtaining views and opinions across a broad range of "publics" -- including the silent majority. Citizens do not need strong communication skills or specialized knowledge in order to participate. Random sampling can help ensure representativeness. However, surveys do not provide an opportunity for dialogue and learning. They may oversimplify complex issues and isolate them from their important social and community contexts. They may be biased in their construction and interpretation. Officials can easily ignore the results. See, for example, Fiorino (1990), English et al. (1993).

*Citizen Juries and Review Panels* have been used to weigh or perhaps develop policy options/choices, usually around a single, clearly defined issue. Participants are selected randomly, perhaps from a stratified sample of the community. The jurors/panelists hear testimony from technical experts and stakeholders and have an opportunity to question and challenge them. Deliberating together, they discuss and evaluate the evidence and vote on a final decision or set of recommendations. The selection process helps enhance representativeness and impartiality, although a majority rule approach to voting may overwhelm minority interests in the issue. The involvement of lay citizens as jurists helps balance the weight generally afforded scientific and technical experts, thus facilitating greater infusion of community values into the decision making process. The formality of this mechanism raises expectations that the initiating agency will seriously consider implementing the decisions/recommendations that emerge from the process. For more information, see Fiorino (1990); Renn et al. (1993); Kathlene and Martin (1991); Crosby (1995); Armour (1995); and NRC (1996).

*Alternative Dispute Resolution/Mediation/Negotiation* processes are increasingly popular methods of reaching consensus or resolving conflicts over risk-related issues. They are generally facilitated processes, involving parties with a wide range of views and interests in the issue at hand. Participants meet over time and attempt to resolve differences through dialogue, deliberation, and compromise. Federal agencies frequently use negotiated rulemaking in the regulatory process. These mechanisms operate over time, give participants access to information, and provide opportunity for

learning and shared decision making. However, the success and fairness of these processes may be hampered by a lack of representativeness and the exclusion of unorganized interests); a bias in favor of the existing societal power distribution; and uncertain agency commitment to the outcome. See Fiorino (1995); Hadden (1995); Baughman (1995); Nothdurft (1995); Susskind and Ozawa (1985); Susskind and McMahon (1985); and NRC (1996).

There are, of course, other important mechanisms of public participation. These include the direct democracy approaches of ballot initiatives and referenda, town meetings, petitions and protests, as well as the emerging technology-based approaches that include, for example, computer-based and media-based polling, videoconferencing, and computer-assisted meetings. See English et al. (1993) for a discussion and analysis of these mechanisms.

#### F. Issues and Challenges

Theorists, researchers, and policy analysts raise a host of issues that pose practical challenges to agencies and institutions required, willing, and/or eager to engage in public participation activities. Some of these have been mentioned above, such as the purpose of public participation, the goals of any particular participatory activity, conceptualizing and identifying the public, the community, and the stakeholders, defining "success" and developing evaluative criteria, and selecting the type(s) of participatory mechanism. The literature, as well as actual efforts to implement public participation processes, continue to raise other difficult issues, some of which are noted below.

*Who speaks for the community?* Although the literature offers definitions and distinctions among terms (e.g. public, community, stakeholder), the issue continues to challenge analysts and practitioners alike. Clearly, the identification of the "right" participants is situation- and context-specific, but issues of representativeness are not easily resolved. Many, indeed most, public participation processes involve organized interests and/or activated members of the community. It is not at all clear that those who participate in these activities are adequate surrogates for or can represent the views and values of the larger, unorganized, inactive, and non-participating public. The issue may be particularly relevant in marginalized and socially disadvantaged communities where affected citizens have many other, and perhaps more pressing, concerns. In any community, participation takes time and there are many potential barriers (Fiorino, 1989; Yosie, 1998).

On a practical level, decisions about how participants are selected and appointed can significantly affect both the perception and the reality of the fairness, independence, and representativeness of the participatory process. A desire for representativeness will often confront demands for efficiency. While there have been calls for more inclusive and proactive methods for broadening the base of public participation (Peelle, 1991;

Chess et al. 1995), "best practice" has yet to be described.

*What can/should different groups contribute to agency decision making through public participation?* The literature is rich with debate and discussion of different forms of rationality (see, for example, Perrow, 1984; Shrader-Frechette, 1985, 1991; Wynne, 1991); the role of science and scientific/technical expertise in decision making (e.g., Nelkin, 1975; Krimsky and Plough, 1988; Edelman, 1988; Fiorino, 1989, 1990; Eden, 1996); and methods for eliciting community values (e.g., Renn et al., 1993). The importance, relevance, and necessity of citizen- and community-based knowledge and expertise in environmental decision making is well acknowledged. Reliable technical and scientific knowledge, skills, experience, and judgement are also integral to decision making around environmental risk. The National Research Council (1996) has emphasized the importance of getting the science right and getting the right science, along with getting the right participation and getting the participation right. The challenge lies in the implementation, and there is no recipe.

*When should the public become involved in environmental decision making?* Despite a history of late involvement, it is generally agreed that public involvement should begin early in the decision making process, as problems are being defined and formulated, and be sustained throughout (Kasperson, 1986; National Research Council, 1996; Presidential/Congressional Commission, 1997; Chess and Purcell, 1999). Early involvement helps take citizens out of a reactive position and offers them meaningful engagement in discussions of options, tradeoffs, and consequences. It is also agreed public participation activities should not be initiated if decisions have already been made or if there is no possibility that the public can influence them. Because they found some instances of successful public participation in which it did not occur, Peelle et al. (1996) suggest that early involvement is helpful, but may not always be necessary.

*What mechanisms should be used?* The literature is replete with discussions and comparisons of many parameters of the different public involvement mechanism (see, for example, English et al., 1991; Renn et al., 1995). Again, there is no one best practice, as the mechanisms vary in important structural dimensions, such as duration and resource availability. Moreover, they can be used for different purposes, e.g., gathering information, identifying options; solving problems, giving advice, building consensus, resolving conflicts, and making decisions. As noted earlier, many scholars favor mechanisms that provide opportunities for public discourse and deliberation, social learning, and the development of mutual understanding and shared values (e.g., Fiorino, 1989, 1990; Laird, 1993). Participatory methods are simply tools. It has been suggested that results will depend more on the tool's use and its context than on the form it takes (NRC, 1996; Chess and Purcell 1999). Successful public participation may require the use of a variety and combination of tools.<sup>2</sup>

---

<sup>2</sup> This was the case in the communities involved in this study.

*What factors are likely to result in successful public participation?* The literature and case studies have tentatively identified a host of factors seemingly associated with success (by virtue of their presence) or failure (by their absence). Many have intuitive appeal. However, there is still a lot to learn about the requisite nature of these factors; their independence and interdependence, their importance in different situations/contexts and at different stages of the decision making process; and their relative contributions to successful participatory efforts (see Peelle et al., 1996).

*What is the role of government in contaminated communities?* There is a significant and historical literature on the meaning and reach of the social contract between government and the governed. Philosophers and political theorists from Jacques Rousseau, John Stuart Mill, Immanuel Kant, and Thomas Jefferson have explored this issue, as have more contemporary scholars (e.g., Patemen, 1970; Rawls, 1971; Reiss, 1970 ). More recently, Sandal (1996) has put into sharp focus the question of whether government ought to act as the trustee of minority interests or facilitate majoritarian decision making in general. There is little, if any, scholarship on the alternative roles of government in the context of environmental contamination. This report hopes to stimulate consideration and discussion of this issue.