

# **Public Participation in Hazard Management:**

## **The Use of Citizen Panels in the U.S.**

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# Problems of Participation in Risk Management

public involvement regarded as a mandated, but unwelcome, intrusion into planning

decide first how to deal with a risk problem and then inform the public.

Often, decisions evoke conflicts between risk minimization and equity. For example, disposing of externally generated waste may minimize overall public risk, but is unlikely to be accepted by a host community.

Informing the public may help clarify issues, but cannot resolve conflicts caused not by ignorance, but by diverging interests among industry, regulators, stakeholders, and the affected public.

citizens concerned with health risks may recommend expensive programs to achieve relatively small risk reductions.

“the public” consists of many groups with different preferences.

# Levels of Conflict in the Risk Debate

According to this view, risk debates fall into three levels

1. factual arguments about risk probabilities and the extent of potential damage.
2. institutional competence and legitimacy to deal with the risks.
3. Impact of social values & cultural lifestyles on risk management.

The nuclear debate in the 1970's in Sweden leading to a national referendum is an example of conflict resolution at the third level. It was the culmination of extensive debate about the desired direction of technological development in which nuclear power served as a symbol for large centralized technologies and its impacts on economics and society. The majority evaluated nuclear power plants as undesired but necessary until alternative technologies could replace them by the year 2010, after which all nuclear power plants are scheduled to be phased out.

Strong tendency for risk management agencies to reframe higher level conflicts into lower levels ones: third level conflicts are presented as first or second level conflicts, and second level conflicts as first level.

This is an attempt to focus the discussion on technical evidence, in which the agency is fluent

Citizens who participate in these distorted discourses are thus forced to use first level (factual) arguments to rationalize their value concerns.

Unfortunately, this is often misunderstood by risk managers as "irrationality" on the part of the public.

Frustrated, the public retreats to due process and routinization of the process, abscising it of substance, and departs with disillusion and distrust of the system.

# Citizen Panels for Policy Evaluation and Recommendation

multivalued, multiactor, multiinterest, decision making.

The goal is to inform panels 20 to 25 of randomly selected citizens about various policy options and potential consequences and to have them draft recommendations and evaluations with respect to these policies based on their preferences and values.

Citizen panels are given paid leave from their work obligations to serve as "value consultants" in a three to four day process. Their role is to review the testimonies of experts and stakeholders, investigate potential benefits and risks, and assign trade-offs between various options on the basis of their personal values. The output is a recommended solution for the pre-defined problem. The process relies heavily upon a clear mandate of the decision making institution to seriously consider implementing the recommendations of the panels, the involvement of randomly selected citizens, and assuring their legitimacy in the eyes of other citizens and stakeholders.

# Information Needs of Panelists

Informing participants about options and likely consequences is the vital part of the procedure.

In reference to the three levels of conflict, the content of the information material and the structure of its presentation must match the requirements for each conflict level.

Panelists need to be informed about

the potential impacts of each policy option (expert judgments),

the agency performance records in managing the risk under consideration, and

stakeholder values and interests with respect to the risk source.

With this in mind, they then must reflect on their own values and interests.

Experts in relevant fields are gathered to validate the technical information which will be input to the panel.

The method used is Group Delphi, which preserves all features of the conventional Delphi exercise except anonymity, which is surrendered for efficiency.

Experts meet in a plenary and receive introductory material.

They are then divided into small groups of three to five and given the questionnaire.

Each small group works privately and tries to reach consensus on each item.

The organizers present compiled results of round one to the plenary where groups with diverging opinions are asked to justify their responses.

the small group membership is shuffled, and round two is conducted.

This process is repeated until it is clear that convergence has been obtained.

In this manner, differences about factual evidence (first level conflict) can be resolved or contained outside of the citizen panels.

It is not expected that the experts will resolve all conflict, but dissent must be clearly defined so that the range of opinion can be conveyed fully to the citizen panel.

Furthermore, the major spokespersons of opposing camps may be invited to the citizen panel to express their viewpoint directly to the citizens, and to make themselves available for questioning.

As in jury trials, expert witnesses are called before the assemblage to present their perspective and reasoning, and to be cross-examined by the participants.

All uncontested actual information can be conveyed by formal lectures and written summary material.

Conflicts about the **second level** of debate necessitate information from within a managing agency and from outside analysts of the agency's performance.

This occurs within the citizen panel structure.

Claims of competence or incompetence can best be evaluated by having representatives of the respective agencies or industries and their critics present their arguments to the panel and provide evidence to justify their claims.

Of course, all camps must be equally represented and allowed to present their own cases.

Debates on the **third level** require extensive communication about values and lifestyles.

These topics are subjects of small group sessions (3-5 participants) and plenary discussions in which the citizens consider values and criteria for assessing the various options.

The method of value tree analysis is typically employed to expose values, and thus make value-based argument transparent.

To be better informed about the potential value implications, we present to the panels the results of a special survey of the major stakeholder groups.

These surveys contain the stakeholders' value trees, i.e. representations of their values and attributes to evaluate policy options in a tree-like, hierarchical structure.

The panels can also opt to invite spokespersons of stakeholder groups as witnesses in order to clarify value issues and explain claims of potential violation of group interests.

# The Decision Making Process within Citizen Panels

- 1 Introduce issue through lecture and field tour.
- 2 Provide background knowledge through lectures, written material, self-educating group sessions, audiovisual information, field tours, etc.
- 3 Introduce controversial interpretations of information through videos or hearings.
- 4 Introduce options through lectures (non-controversial) or hearings (controversial).
- 5 Problem structuring for each option through group sessions & plenary discussions.
- 6 Elicit values and develop criteria to evaluate each option.
- 7 Evaluate information and options through individual questionnaires and group discussions (captured in group response forms).
- 8 Draft rough recommendations through work groups and plenary sessions.
- 9 Put recommendations in a citizens' report after the planning cells by the facilitator.
- 10 Provide citizens' report to participants
- 11 Present the citizens' report to the sponsor, the media, and interested groups.

In contrast to the usual MAU procedure, numerical results of the decision process are not used as the final judgment of the participant;

instead, they are only an aid to improve the participant's holistic judgment.

The advantage of the MAU model -- to break down a complex problem and structure a productive discussion -- is used to its fullest extent without accepting the rigid rule of combining the scaled results into a single dimension.

Final recommendations are always based on a holistic judgment by the individual participants.

# Distinct Characteristics of Citizen Panels

Since the participants convene for only a limited time, and do not depend on each other, they are not concerned about the social status and power of each individual member outside the panel. The panel represents a working group of equal influence and power. Personal ambitions to dominate the process are not tolerated by the group members; nobody has anything to lose by speaking up. Thus, the process itself comes close to the ideal of a discourse as Habermas and others have postulated for policy making.

It ensures that citizen values are highlighted to avoid emphasizing technical issues, while providing technical information resources to citizens. The use of a neutral facilitator reduces the potential for perceived bias in the organization of the panels, and random selection meets the requirement that each citizen have an equal chance to participate.

Citizen panels work best when a problem can be resolved in a short time, no major inequities occur, and several solutions (not narrowly technical or political) are available.

The approach does not work well for issues that pose major inequities for different regions or social groups, since randomly selected citizens are not seen as legitimate negotiators for these groups.

Yes/no issues, such as siting facilities, are also inappropriate since participants may feel obliged to select the no-action option.

Decisions which need to be adapted over time also cannot be handled with this approach, since the panel relies on its temporary nature for optimal functionality.

In addition, some decision issues may require more time than is practically available to citizen panels.

Despite these limitations, citizen panels seem especially suited for issues of risk management.

Risk issues often involve many different types of conflict.

A holistic understanding of the impacts of a proposed project must be based on scientific and technical conventions, beliefs of organizational competency, and personal preferences.

In the end, it is the citizens' estimation and interpretation of impacts that will govern their decision to contribute.

Because the citizen panel approach is explicitly designed to fit this type of problem structure, it offers a unique alternative to the routine forms of public participation.

# A Case Study of Citizen Panels in the U.S.

In 1988 the New Jersey Department of Environmental Protection (NJDEP) awarded a research grant to the Center for Environment, Technology, and Development (CENTED) at Clark University to test the method of citizen panels in the area of sewage sludge management. A research project had been proposed by Rutgers University to apply sludge to their experimental farm in Hunterdon County and a permit from NJDEP was required. The objective of the contract with Clark University was to involve the local public in a discussion about the potential risks and benefits of the proposed project. The NJDEP hoped the citizen panel would issue conditions for a draft permit, which would then be subject to the usual permitting process (public hearings).

As an option for sewage sludge management, land application has become more prominent as new laws prohibit ocean dumping and landfill disposal, and lead times for the construction of incinerators lengthen. An advantage of land application is that the sludge is recycled, serving as fertilizer for crops, and reducing the amount of chemical fertilizer needed.<sup>28</sup> Possible risks involve contamination of soil, crops, or water by organic and inorganic components of the sludge, and transport and storage of the sludge. Additionally, there are potential problems with odor, and secondary economic, social, or aesthetic impacts.

Despite the fact that the New Jersey regulations for land application of sludge are widely considered to be among the strictest in the country, draft permits have encountered fierce public opposition and community protests. In addition to health and odor concerns, citizens living near proposed sites have

worried about the long term impacts, the role of the regulatory agency, and the permitting process.<sup>29</sup> The NJDEP expected that citizen involvement would offer opportunity for the affected public to suggest conditions under which research into land application could ensue without opposition. If these conditions were adopted into the permit, citizen trust of the agency and acceptance of land application might increase.

The first stage of the project was to review transcripts from public hearings held in New Jersey and New York on land application permitting. The research team also spent several days in Hunterdon County interviewing local officials, potential stakeholders, and local opinion leaders. These data were used to design measures by which citizens could evaluate the performance of the various options on the different value dimensions.

The second step was to ask experts in land application of sewage sludge to evaluate the risks involved with this proposed sludge research project, and judge the effectiveness of the New Jersey regulations at mitigating these risks. For this purpose, a Group Delphi was held in October of 1988, in which nine national experts participated.

Figure 3 is an example of the results of the Group Delphi. It shows the expert assessments (three groups) of the relative risks of heavy metals typically found in municipal sewage sludge (assuming the sludge were to be applied without the state regulations in place). With state regulations in place, the risks were assessed to be negligible, with the exception of lead. The Group Delphi clearly revealed a consensus that the New Jersey regulations did not adequately restrict lead contamination; but were more than adequate in regulating all other contaminants, as well as all aspects of the application process.

# Deviations from the West German Model

This was the first attempt to use the German-derived model of citizen panels in the U.S. The major question for the application of the panel model in the U.S. was: What kind of modifications are necessary to adjust the model to the U.S. political culture? The West German political context in which the model was developed differs in some key areas from the U.S.:

\* Americans have more capacity to influence government decision making than Germans.<sup>31</sup> Americans expect to be involved in political decision making (at least on decisions affecting their own livelihood or community) while Germans feel honored when asked to participate. However, this difference between the two political cultures is fading. In Germany, a participatory orientation is emerging,<sup>32</sup> and the typical U.S. citizen feels more and more alienated from the political decision making process.

\* Americans believe twice as often as do Germans that they can help to change unjust regulation.<sup>33</sup> Americans tend to rate the efficacy of protest behavior higher than do Germans.<sup>34</sup> Germans are likely to use unconventional forms of participation if they are dissatisfied with the government since they believe that conventional forms would not be effective. The U.S. system provides citizens with more possibilities for influencing the political decision making process so that unconventional means are only selected if all other means appear to fail.

\* Civil servants in Germany emphasize the role elements of "broker" and "legalist" more than their American colleagues and confine their role to interpretation of laws. U.S. civil servants on the other hand concentrate on the functions of "advocate" or "facilitator". German civil servants are usually

appointed for life and serve under changing governments; they perceive themselves as "non-partisan executioners" of the common good.<sup>35</sup> Civil servants in the U.S. feel attached to the administration that brought them into office and tend to adjust their actions in accordance with the political program or philosophy. As a result, the German public perceives its civil servants as impartial functionaries, whereas Americans tend to associate special interests with different civil service sectors. However, the impartial image of German civil servants has been changing during the last decade and is increasingly challenged by new social movements.<sup>36</sup>

\* In Germany, regulations and standards are designed by a selected "club" of national elites, including well-known scientists, professional societies, the unions, and industry.<sup>37</sup> Outside interest groups have been only marginally involved in the regulatory process, except when it has been in the interest of the ministry to mobilize public support for a proposal that might not have been approved by the club.<sup>38</sup> After the club reaches an agreement, the public is informed but not consulted. The U.S. system has adopted a more adversarial style that is characterized by more open conflicts and often litigation. The regulatory agencies are obliged to make the intent to promulgate new regulations public and to invite all interests to become involved in the decision making process.<sup>39</sup>

In essence, German citizens have less opportunities to participate in regulatory policy making and to make their preferences known to the administrators. As long as they feel that the club is doing a good job and their interests are represented, they feel comfortable with the system. Once they have lost trust in the administration, they are more likely to use unconventional means of political expression. The rise of the Green Party and the popularity of direct citizen action groups indicate that the trust in the conventional forms of conflict resolution is fading in particular in the area of environmental regulation.

U.S. citizens, on the other hand, do not expect that the political or administrative decision makers will act in their best interests. They believe that checks and balances must be in place to assure mutual control.<sup>40</sup> Control includes the right of citizens to be at least consulted, if not asked for their approval regarding changes that might affect their well being.

In order to adjust our citizen panel model to the U.S. political culture and context, several changes from the original concept were made and implemented. Among them were:

- \* Incorporation of official stakeholders as participants of the planning cells (as a means to accommodate the expectation of local stakeholders to be included in the planning process).
- \* Invitation to all abutters of the proposed site (in order to accommodate the common expectation that all affected citizens should have the opportunity to participate).
- \* Abandonment of all honoraria (in order to emphasize the civic duty of public involvement and to avoid impression of bribery).
- \* Division of the meeting time into two consecutive weekends (in order to make the meetings more attractive and to avoid paying compensation for workdays lost).

Due to time and money constraints, a local coordinator was not appointed; the research team conducted all organizational and logistical actions. An attempt was made to have the citizens sign "contracts", as was done in Germany. The purpose of the contracts was to underline the seriousness of their role as value consultants; but the citizens objected to these contracts as legalistic, so they were dropped.

## Process and Results

With these modifications, we organized two parallel panels to take place on two consecutive weekends in mid-November, 1988. One panel consisted of randomly selected citizens and affected citizens living very near the farm. The other panel was made up of local and regional stakeholders who had been identified through local officials, our interviews, and the NJDEP. It was intended that these two parallel panels would merge during the second weekend and issue one set of recommendations.

The envisioned program was radically altered after the participants, especially the abutters, made it clear they rejected the proposed research project and felt more comfortable organizing their own meeting without the help of a third party. During the first weekend, the two panels were combined and the agenda altered to address the risks of land application. During the first session of the second weekend, amidst much greater attendance, the citizens decided to organize themselves and promised to submit a set of recommendations within a two month period. These were clearly geared toward the rejection of the proposed research.

During the first weekend, the citizens were able to generate a full list of values and concerns, and perform preliminary evaluations of the regulatory options (see Table 3). The information material from the Group Delphi was appreciated and the merits of land application research in general were supported. The greatest concerns of the citizens were not the health consequences or odor, as the experts had envisioned; rather, they were most concerned about the long term impact that sludge application would have on the viability of farming and the rural landscape of the town. In particular, they were concerned that the research project might become a large scale application program. Neither the county nor Rutgers had such plans, but the prospect of such expansion was unsettling.

# Transferability of the Citizen Panel Model to the U.S.

Is the citizen panel approach to public participation as it has been used in planning problems in West Germany applicable to risk management in the U.S.? This case study did not obtain citizen recommendations for a draft permit (and the proposed research project did not proceed); nor did it entirely resolve conflicts about values, institutional competence, or scientific facts. However, under difficult conditions, the process did successfully foster a degree of interactive understanding between government officials, stakeholders, citizens, and technical experts. This is uncharacteristic of most siting efforts. Citizens did receive the educational component and interview scientific experts and public officials; they did discuss and express their personal concerns, values, and preferences; and some options were evaluated. Although they were not pleased with the choice of options available, the citizens did indicate a desire to participate early on in the policy formation process.

Based on our experiences in West Germany and New Jersey, it appears that some conditions for citizen panels are demanded:

- \* variability of options: the issue must have several feasible options, each with advantages and disadvantages;
- \* equity of exposure: there should be a roughly equal exposure to the disadvantages of these options among the local population;

- \* participation of randomly selected citizens: even controversial issues can be dealt with if attitudes are not already polarized and if the majority of participants are randomly selected;41
- \* personal experience: citizens should have enough experience with the issue that they feel confident about learning and discussing options;
- \* openness of sponsor: the sponsor must be willing to seriously consider the recommendations of the panel.

It is still unclear whether an honorarium should be offered to the participants. The advantage of showing respect for people's effort and time must be weighed against the potential for misperceiving it as bribery.

Our experiment with citizen panels taught us that the process of public involvement is as much an issue of controversy for Americans as is the subject matter itself. German citizens seem more willing to accept given agendas and adhere to a specified time frame. By contrast, U.S. experts, politicians, stakeholders, and citizens all felt comfortable questioning the agenda and spending more time on items they felt were unfinished.

The experience of participants' dissatisfaction with the process and the agenda underlines the importance of having a local coordinator. Such a person might have identified community traits and preceding events which could possibly inhibit the panels. A few weeks earlier, county officials had decided to site the county solid waste landfill near the research farm, and local residents were in no mood to trust the state DEP or another research project team with whom they had no affiliations. A local

coordinator could have alerted the research team to this condition. In addition, early communication among the local coordinator, potential participants, and members of the research team might have eased the tensions that were built up as a result of the citizens' unfamiliarity with the process and its objectives.

The success of public involvement will depend on securing approval of the process by the affected constituencies. The social climate of distrust of government agencies and their contractors is partly expressed as skepticism toward new procedures. Citizens must be involved in the design of the procedure and the agenda, despite that this may evoke conflicts that displace the actual conflict. We agree with Crosby [CNDP, 1985], that it is advisable to hold a meeting with the participants at least two weeks before the citizen panels are convened to discuss the process, agenda, and informational material; and to given the citizens a chance to alter the time frame or agenda.

# Conclusions

A potential conflict exists between the rights of citizens to take part in discussions on risk-related issues, and the responsibility of government agencies to manage hazards in a cost-effective manner.

The philosophy behind citizen panels is that citizens, experts, and stakeholders can resolve this dilemma through their respective expertise.

Stakeholders are valuable sources for concerns and criteria to evaluate options, since their interests are at stake.

Experts are needed to provide technical data and point out relations between options and impacts.

Citizens must live with the consequences, and are therefore the best judges to evaluate the options.

Citizen panels are intended to bring these three perspectives together in a productive fashion.

Any public participation must be perceived as fair and legitimate.

The experience with citizen panels shows that the structure of the process is capable of providing an arena for addressing conflicts at the factual, managerial, and value levels of the debate.

The acceptability of the process depends on the right of the participants to be involved in setting the agenda and defining the policy options wherever feasible.

A fair procedure, however, does not insure citizens will select the best technical solution or the option favored by the risk management agency.

Citizens may understand the technical dimensions, but choose another option more consistent with their values.

The authors believe the public is capable of comprehending complex issues and making decisions beyond those which maximize their own personal gain.

Most people take the responsibility of community involvement extremely seriously.

Successful public involvement depends on there being a procedure which supports discourse and full consideration of evidence, rationales, and options.

With such a tool, citizens will articulate well-considered policy recommendations. A procedure that allows citizens to demonstrate their potential, and includes technical and political knowledge needed for holistic analysis, would enhance society's ability to manage risks.

The proof of this assertion will lie in further experimentation with innovative procedures.

Through participation, rationality is enhanced; and through rationality, participation is facilitated.