The Newsletter of the Science and Environmental Health Network

Carolyn Raffensperger and Nancy Myers, editors

May 2001 - Volume 6, #3

www.sehn.org

****

DEMOCRACY AND THE PRECAUTIONARY PRINCIPLE

==========

EDITOR'S NOTE -- Special thanks to those who responded to our questions about public interest research. We will return to that subject in a later issue.

This is the first in an occasional series elaborating on the major elements of precautionary policy. As defined in the 1998 Wingspread Statement on the Precautionary Principle, those components are:

1) action to prevent harm when science is uncertain

2) burden shifting toward proponents

3) assessing alternatives

4) transparency and democratic participation in decision making

This article, adapted from a recent Loka Alert (www.loka.org), addresses democratic participation.

==========

DEMOCRACY AND THE PRECAUTIONARY PRINCIPLE

By Joel Tickner and Lee Ketelsen

Democratic methods of decision-making are critical to implementing the precautionary principle. The precautionary principle is also necessary to the practice of democracy in all venues, not only the political arena but in the workplace and society at large.

Americans live in a representative democracy based on guaranteed individual rights. They elect representatives who vote on laws designed to protect public health and the environment. They vote for executives who appoint bureaucracies to implement and enforce these laws. The United States has a court system to punish violators of the laws, to defend the collective good, and to protect individual rights against the tyranny of the majority.

But democracy has functioned poorly in protecting the health of individuals (both in the workplace and in the community at large) and ecosystems from environmental contamination. All aspects of the systems

set up for such protection have been undermined by economic and political pressures, the influence of corporations, and sometimes majority rule or indifference.

Democracy and the protection of individual and collective rights are notoriously weak in cases in which activities may have harmful side effects, but current scientific methods cannot fully establish direct cause and effect connections.

Future victims of these actions are unknown and likely to remain unidentified. These victims cannot organize a voting block because most people do not know they are or will be victims, or that their children will be. The perpetrator, the polluter, or sometimes a government agency can use the uncertainties of the science to deny to the courts or to the court of public opinion that any harm is being done.

Government officials tend to react more swiftly and exercise precaution when the victims of damage are well identified--such as victims of infectious disease or accidents--and when cause and effect links are clear. The same is true of members of the the public, who may be moved to support gun control, for example, because the danger is clear, even if gun violence may never affect them individually. We have even gained protections for those who have no voice in the process, such as plant and animal species near extinction. The causes of species decline are known, the victims are known, and therefore protections are fought for and won.

Even in these cases, action takes place only long after the victimization has begun, damage has occurred, and many have suffered. And when the victims remain unproven or unidentified, full health protections for people or ecosystems are rarely achieved under our current system.

Various analysts have made this flaw in democratic process starkly clear. Merrell and Van Strum (1990, as cited in O'Brien, 2000, p. 80) posed the following question about pesticide risks:

"What would happen if our pesticide risk assessments were so scientifically advanced that assessors knew not only exactly how many people would be harmed by a particular pesticide but also which individuals would be harmed? A permit to release a carcinogenic pesticide into the food system, for instance, would be preceded by a list of those who would contract the cancer. This, however, would constitute premeditated murder. The marked people would be entitled to an injunction on using that pesticide by their Constitutional right to life. However, bureaucrats and the private sector routinely 'get away' with this premeditated murder because the victims are individually anonymous."

The fact that our current system allows unidentified individuals to be harmed without their knowledge or consent results in the routine violation of the individual's right to life, liberty, and the pursuit of happiness and our collective right to health and safety.

The precautionary principle is necessary to guarantee this basic right. It says that if there is credible reason to believe that the actions of one entity will hurt another, action should be taken to protect the potential victims.

Why Not Leave It to the Experts?

Human activities cause some harm to ecosystems, and could harm human health. We can't live without risk. We need a process to decide the safest ways to meet our needs. When do the benefits of an activity outweigh the risks?

The U.S. process for arriving at those decisions is based on a system of elected officials, protective laws, technical experts, risk assessments, cost-benefit analysis, public hearings, and stakeholder input. Daniel Fiorino (1990) notes: "Many observers argue that risk decisions are best left to administrative officials in concert with scientific experts, acting under instructions from elected representatives, and consulting as necessary with interest groups representing aggregated 'public' interests. . . . Elites, it is argued, will make more rational decisions."

Proponents of the precautionary principle see a need for a new system of democratic methods that protect individual, collective, and minority rights. Mary O'Brien (2000, p. 79) states:

"While permitting hazardous activities is unavoidable to some degree in a representative democracy of 250 million citizens, we must look at the degree to which communities are requiring and allowing government and business to pronounce the adverse effects of unnecessary hazardous activities acceptable when in fact the victims may not find them acceptable at all."

A system of decision-making, called risk assessment and risk management, has evolved that tries to establish an "acceptable risk" for some harmful activities. The system has major flaws, not the least of which is that it tends to exclude those affected from the decision-making process. As O'Brien states:

"Nobody is able to define for someone else what damage is 'acceptable.'. . . What is acceptable to any person is a matter of personal judgment, but the word is used by risk assessment promoters as if it were something about which everyone must surely agree. This is not accurate. For instance, while a state Department of Environmental Quality may call some amount of toxic pollution of well water acceptable, a person who actually drinks this well water may not find any unnecessary pollution acceptable." (O'Brien, 2000, pp. 7-8)

This technocratic process purports to put the decisions into an objective framework but the process gives greater power to corporate interests and tends to violate individual and collective rights to health. Fiorino (1990) gives three arguments against the technocratic process:

"A substantive argument is that lay judgments about risk are as sound or more so than those of experts. . . . A normative argument is that a technocratic orientation is incompatible with democratic ideals. It is to 'ignore the value dimension of policy analysis and to disenfranchise the public who, in a democracy, ought to control that policy'. . . . An instrumental argument is that effective lay participation in risk decisions makes them more legitimate and leads to better results."

Fiorino and others have outlined just why lay participation in environment decisions can lead to better results:

* Lay citizens frame problems in a broader manner that is not constrained by disciplinary boundaries and may see problems experts do not;

* Lay participation can bring a broader range of expertise and experience into decision processes;

* Lay participation can expose limitations in "expert models";

* Lay judgments reflect a sensitivity to values and common sense;

* Citizens are more likely than experts to identify alternatives and solutions;

* Citizens are more likely to "institutionalize regret - accommodate uncertainty and consider potential errors in decisions."

The current process of regulatory decision-making contains some elements of public participation, such as public hearings on proposals and sometimes stakeholder committees. But as Arnstein (1969) argues, "there is a critical difference between going through an empty ritual of participation and having the real power needed to affect the outcome of the process."

We need to make more democratic choices about what is necessary, what is least harmful, and what is fair.

Therefore we need to implement the precautionary principle: to take action to protect our right to an environment that does not threaten our health or life, and to implement democratic processes to choose the least harmful and most beneficial alternative technologies and methods of meeting our needs.

Key Methods: Lay Juries and Panels

To protect individual rights to life and liberty, criminal cases in the U.S. guarantee the accused a fair trial with a jury of his or her peers. When someone's life or freedom is at stake we have long trusted the decisions of juries.

When individuals or groups believe they are being harmed by others, civil court trials, often with juries, are available to them. For example, a jury was entrusted to decide if tobacco companies should pay damages to smokers. However, when someone's life or way of life is being

harmed by another's emission of a toxic chemical or destruction of an ecosystem, we turn to a state bureaucracy to make the decisions.

Perhaps these decisions should, instead, rest with independent juries and citizen groups. Questions such as, When is there enough evidence to warrant action? and What should that action be? require value judgments. Science provides vital evidence for informing the decision, but the ultimate decision is primarily a judgment of what is necessary and fair.

"People should be provided with the means to work out what precaution means for them in their own localities," write Jordan and O'Riordan (1999) "It means exploring the worst-case scenario and searching out the ill-informed and possible 'losers' from a course of action, asking what they regard as legitimate."

New democratic methods are needed for making environmental and health decisions in the face of uncertainty. An appropriate system would include:

* Precautionary laws, regulations, and policies to guide decision-making;

* A democratic process to guide government decision-making on the safest ways to fulfill our needs, that maximizes input from potential victims;

* An appeal system to citizen juries or panels.

Several models exist for both increasing potential victim input and creating greater citizen authority over environmental decisions. These models have not been perfected, nor have they been fully implemented and given legal authority, but they are being tested in the real world.

Citizen juries

Citizen juries represent a direct form of citizen participation in decision-making processes, modeled after the criminal jury system. Crosby (1995) contends: "A group of randomly selected citizens, when exposed to good information presented by witnesses from differing points of view, is able to make good judgments on public policy matters even though in terms of training and experience there are many people more competent than they."

The citizen jury concept was developed by the Jefferson Center (in Minnesota, USA), a non-profit, non-partisan facilitation organization. A randomly selected group of 12 jurors, designed to represent the general public, is impaneled to study a specific local or regional public policy issue. (Juries have also been conducted on national issues.) The facilitating organization develops a narrow charge, which is presented to jurors at the beginning of the process.

The charge generally contains a clear statement of the problem to be addressed, often asking jurors to chose between three or four preselected options, and subsequent follow-up questions to consider. The jurors, who are paid for their time, participate in hearings over 4-5

days, facilitated by a neutral moderator. They hear from "witnesses" presenting a wide range of views on the issue. Jury members may question witnesses. The jurors then deliberate and issue findings and recommendations to policy makers.

The process is designed, like a criminal jury, to examine a narrowly defined charge. Jurors receive limited background information and training, and the process does not promote critical inquiry into issues outside the limited mandate (Renn, et al., 1995). As the decisions are made by majority vote, minority positions may not be adequately considered in the jury discourse. And, of course, currently these jury decisions have no legal weight.

Consensus conferences/planning cells

Consensus conferences (from Denmark) and planning cells (from Germany) are two mechanisms that engage citizens in examining broadly defined questions of regional or national importance. The consensus conference has been defined in this way:

"A forum in which a group of lay people put questions about a scientific or technological subject of controversial political or social interest to experts, listen to the experts' answers, then reach a consensus about this subject and finally report their findings at a press conference." (Joss and Durant, 1994)

The lay panel is the main actor in the process, determining the expert panel, determining the questions to be asked, and reaching consensus. The process consists of three steps: education and reception of information on the topic, so that the panel members can formulate specific questions to be explored; processing of information through panel discussions, hearings, and questioning of experts; and group deliberations and findings. (Dienel and Renn, 1995; Sclove and Scammel, 1999)

The process is facilitated by a neutral third party. Results are generally widely distributed in the media and are the basis for further local hearings.

Consensus conferences generally address broader issues than normally addressed by experts, and they issue broader recommendations. A Norwegian lay panel on genetically modified foods, for example, found that such foods were not needed because the selection and quality of food was already sufficient and there was too much uncertainty about the potential impacts of these foods on health and the environment.

Although cultural diversity and inequities may present challenges in this model, a U.S. consensus conference on telecommunications, convened by the Loka Institute (www.loka.org) demonstrated that a diverse group of individuals could ask detailed technical questions and issue far-reaching recommendations on highly complex issues.

The consensus conference process is one in which "controversial and contested knowledge will be subjected to critical scrutiny, and through

which lay citizens affected by a policy topic are provided a central role in framing and assessing the issue, and providing recommendations." (Fixdal, 1997)

Scenario workshops, community planning, and other models

Other models for forward-looking decision-making are vehicles for the goal-setting and alternatives assessment that are so important to implementing the precautionary principle. In Europe, several governments have undertaken "scenario workshops" to develop future visions for a country or region. They involve different groups (residents, government, academics, business, etc.) in the assessment of possibilities and needs related to future technological developments.

These workshops address broad "how" questions, such as how to develop a sustainable community or how to address toxic contamination. Often goals are set and strategies are developed to achieve those goals.

In some European countries - particularly those where workplace co-determination is practiced - workers have been involved in production and workplace design issues. In the U.S., sustainable community planning exercises have been undertaken in various locations. Finally, other models exist such as the planning models of native cultures and groups such as the Amish, who have a long history of democratically choosing technologies.

The Massachusetts Precautionary Principle Project is exploring using these and other methods on a statewide level to implement the precautionary principle in environmental health policy. The project is committed to establishing democratic decision-making processes for choosing the safest alternatives to meet our needs. It is building a large, diverse network of health professionals, academics, advocates, and victims of pollution and developing models for organizing toward fundamental environmental policy change.

References

Arnstein, Sherry. 1969. A ladder of citizen participation. American Institute of Planners Journal, July: 216-224.

Crosby, N. 1995. Citizen Juries: One Solution for Difficult Environmental Questions. In Renn, O, et al. Fairness and Competence in Citizen Participation. Boston: Klewer Academic, pp. 157-174.

Dienel, P. and O. Renn. Planning cells: A gate to fractal mediation. In Renn, O, et al. Fairness and Competence in Citizen Participation. Boston: Klewer Academic, pp. 117-140.

Fiorino, D. 1990. Citizen participation and environmental risk: A survey of institutional mechanisms. Science, Technology, and Human Values 15(2), pp. 226-244.

Fixdal, J. 1997. Consensus Conferences as Extended Peer Groups. Presented at Technology and Democracy: Comparative Perspectives, Centre for Technology and Culture, University of Oslo, Norway, January 17-19.

Jordan A. and T. O'Riordan. 1999. The precautionary principle in contemporary environmental policy and politics. In Raffensperger, C and J. Tickner eds. Protecting Public Health and the Environment: Implementing the Precautionary Principle. Washington, DC: Island Press, pp. 15-35.

Joss, S. and J. Durant. 1994. Consensus Conferences. London: National Museum of Science and Industry.

Merrill, P and C. Van Strum. 1990. Negligible risk: Premeditated murder? Journal of Pesticide Reform 10 (1): 20-22.

O'Brien, M. 2000. Making Better Environmental Decisions. Cambridge, MA: MIT Press.

Renn, O., T. Webler, and P. Wiedemann. 1995. The pursuit of fair and competent citizen participation. In Renn, O, et al. Fairness and Competence in Citizen Participation. Boston: Klewer Academic, pp. 339-368.

Sclove, R. and M. Scammell. 1999. Practicing the principle. In Raffensperger, C and J. Tickner eds. Protecting Public Health and the Environment: Implementing the Precautionary Principle. Washington, DC: Island Press, pp. 252-265.

****

Joel Tickner is a researcher at the Lowell Center for Sustainable Production, Email: joel_tickner@uml.edu. Lee Ketelsen directs Clean Water Action-New England, Email: lketelsen@cleanwater.org.

==========

SEHN CONTACT AND SUBSCRIPTION INFORMATION

You may contact the editors at craffensperger@compuserve.com or 515-268-0600

Our website is www.sehn.org