

PRECAUTIONARY PRINCIPLE PROJECT

CLEAN WATER FUND ♦ LOWELL CENTER FOR SUSTAINABLE PRODUCTION ♦ MASSACHUSETTS
BREAST CANCER COALITION ♦ SCIENCE & ENVIRONMENTAL HEALTH NETWORK

Precaution: Who Decides ?

Why democratic methods of decision-making are critical to implementing the Precautionary Principle

This briefing paper explores the importance of democratic forms of decision-making that empower citizens as a critical element of implementing the Precautionary Principle. We argue that without such democratic decision-making structures in place, in most cases where there is an uncertain threat to public health or the environment, the status quo of waiting for near proof of harm before acting will be maintained.

Problems with the Current System

Most people believe we live in a democracy or should. Those of us who support the Precautionary Principle do so in part because we perceive our democratic rights to a clean environment and health have been violated.

We live in a representative democracy with guaranteed individual rights. We elect representatives that vote on laws designed to protect our health and environment. We vote for governors and presidents that appoint bureaucracies to implement and enforce these laws. We have 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.

Many have argued that corporate wealth and power, and the fact that corporations have been given the rights of individuals, is a major undermining factor in our democracy. One area where democracy and protection of constitutional rights has functioned most poorly is for the protection of the health of individuals or ecosystems from environmental contamination. Corporate campaign contributions, and armies of lobbyists, consistently block the passage of health protective laws, weaken implementation of existing ones, and inhibit politicians and bureaucrats from protecting health, particularly when opposed by economic interests. Aggressive corporate lawsuits in response to government regulations have resulted in the creation of court imposed restrictions on government action – particularly insisting on narrowly defined quantitative scientific cause and effect evidence of damage before health protective action can be taken (Applegate, 2000). Or worse yet, the courts ask that agencies demonstrate that the “benefits” of pollution do not outweigh the risks before being able to act.¹ Large scale advertising continues to convince much of the public that the current system is for their best interest, “better living through chemistry”, plastics saves lives, driving a big new SUV will make you powerful and closer to nature, etc.

¹ In a recent case – American Trucking Association v. US. Environmental Protection Agency - the trucking industry successfully argued that the EPA must consider the beneficial effects of atmospheric ozone as a protection from UV irradiation in issuing its ambient air quality standards for the pollutant.

Another problem area for democracy is when the majority can impose harm on a minority. This is the case with environmental injustice issues- obvious toxic harm can be imposed on a poor neighborhood of racial minorities because of the indifference of or because it benefits the majority. The idea of “expected utility”, the greatest good for the greatest number is at the heart of many of our environmental regulations, particularly those that balance the quantifiable costs of regulation with the less quantifiable impacts or benefits on a particular population. Yet this type of analysis often begs the question of who benefits and who is harmed.

Despite corporate power, disempowered minorities, ingrained bureaucracies and other factors, in some forms and cases, democracy still functions. It is possible for individual rights or minority interests to be protected when individuals organize a large pressure and voting block so that their numbers outweigh corporate influence.² Or court cases can be waged to win minority protections against majority indifference. Obviously important environmental protections have been won and even big tobacco has begun to pay reparations for its impacts on the health of Americans.

However, the case where activities can cause illness, death or irreversible ecosystem damage, but where current scientific methods cannot fully establish direct cause and effect connections, is a case where democracy and the protection of individual (and collective) rights is particularly doomed to fail. The reason is that the future victims of these actions are unknown and likely to remain unidentified. They cannot organize a voting block because most people do not know they are or will be victims, what activity they might be a victim of, or that they or their children will be victims in the future. The perpetrator, the polluter (or sometimes a government agency), can effectively use the uncertainties of the science to deny to the courts or to the ‘court of public opinion’ that there is any harm being done. In addition, government officials tend to react more swiftly when the victims of damage are well identified – this has to do with the “not on my watch” mentality. These usually tend to be victims of accidents or infectious diseases, for which governments are often very precautionary.

When the evidence of damage becomes clearer, such as the recent evidence of the dangers of second hand smoke, people can organize to gain protections. When the public can see the cause and effect link between a danger and an action, such as when a gunshot kills a child, people are also motivated to gain protections, such as gun control. Even if they don’t know whether they will be victims, they see the danger. 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 the species decline are known, and the victim is understood, and therefore protections are fought for and won. But even in these cases, action takes place only long after the victimization had begun, damage had occurred, and many have suffered.

² This was the case of the recent US Department of Agriculture Organic Standard, where hundreds of thousands of people wrote to the agency to protest its inclusion of genetically modified foods and sewage sludge disposal in the definition of “organic”.

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 with regards to 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 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 an entity will hurt another, action should be taken to protect the potential victims. Also, society should use democratic methods to ensure that the alternatives that cause the least harm are selected to meet our needs.

Thus, the Precautionary Principle is based on the recognition that we in a democracy should be guaranteed our individual and collective right to an environment that does not damage our life or liberty (including our health). This right should override private property rights and the rights of corporations to pursue a profit. We all are allowed to pursue our happiness, so long as we do not infringe on others. But if there is evidence to believe that an entity's actions towards the environment might harm others, that action should be curtailed.

The "Let's be Real and Rational" Argument

It is correctly argued that all 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?

Some people think we have found a system that works. We have 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. As Mary O’Brien (2000, p. 79) states:

“While permitting of 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, but the system has many major flaws, not the least of which is that 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 judgement, 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)

The 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. “Risk assessment obscures and removes the fundamental right to say “no” to unnecessary poisoning of one’s body and environment (O’Brien, 2000, p. 84).”

Fiorino (1990) gives three arguments against the technocratic process: “A substantive argument is that lay judgements 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: (1) lay citizens frame problems in a broader manner that is not constrained by disciplinary boundaries (and may see problems experts do not); (2) lay participation can bring a broader range of expertise and experience into decision processes; (3) lay participation can expose limitations in “expert models”; (4) lay judgments reflect a sensitivity to values and common sense; (5) lay citizens are more apt

to identify alternatives and solutions to a greater degree than experts; (6) lay citizens are more apt to “institutionalize regret – accommodate uncertainty and consider potential errors in decisions.”

The current process of regulatory decision-making does contain some elements of public participation, such as public hearings on proposals and sometimes stakeholder committees. But as Arnstein (1969) correctly 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...participation without redistribution of power is an empty and frustrating process for the powerless.”

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: Citizen Juries and “Lay Person” Panels

To protect individual rights to life and liberty, in criminal cases we 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 one person or group believes they are being harmed by another, we have civil court trials, often with juries. 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. But this system has generally failed to protect the unknown victims.

When someone has evidence to believe that their life or health or way of life may be harmed by others’ potentially harmful impacts on the environment, and that the government action is not forthcoming or sufficiently protective, we should explore the idea that the decision of what to do should rest with an independent jury. Questions of when is there enough evidence to warrant precautionary action, and what that action should be, are value judgements, not scientific questions. Science provides vital evidence for informing the decision, but the ultimate decision is primarily a judgement of what is necessary and fair.

Jordan and O’Riordan (1999) note that “precaution is a culturally framed concept that has evolved along different pathways and at different rates in different countries....individuals will never agree upon what is or is not precautionary in a given situation. Cultural theory tells us that there is no one single context of risk perception.”

We need to explore ways to better represent minority interests and potential victims, including future generations. One option might be some form of victims' advocate in the decision-making process. "People should be provided with the means to work out what precaution means for them in their own localities.... 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." (Jordan and O'Riordan, 1999)

We believe that we need to invent new democratic methods for making environmental and health decisions in the face of uncertainty – when precaution is a critical consideration. We should develop a set of guiding laws and policies that allow appropriate government agencies to make decisions, based on maximum democratic input, particularly by those who may be harmed by the activity in question, but that gives the public or potential victim the ability to appeal to an independent citizen jury or appeal panel.

The pieces of this system would be:

- 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

Potential Models

Several models exist for both increasing potential victim input and creating greater citizen authority over environmental decisions. These models do not function exactly as may be needed to democratically implement the Precautionary Principle, but they provide important real life examples of how new models could function. These include:

- *Citizen juries*

Citizen juries represent a direct form of citizen participation in decision-making processes, modeled after the criminal jury system. The goal is that "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 (Crosby, 1995)." In a citizen jury 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 (though juries on national issues have been completed). These jurors are paid for their time. While the citizen juries are chosen on a case by case basis, one option we need to explore is whether such juries could be selected under the current civil court jury system.

The Jefferson Center, a non-profit, non-partisan facilitation organization that invented the citizen jury concept (or other "facilitator"), develops a narrow charge presented to jurors

at the beginning of the process, which needs to be satisfactory to the sponsor organization, fair to stakeholders (affected parties), and will provide a framework from which the jurors can make good judgments (Crosby, 1995). The charge generally contains a clear statement of the problem to be addressed, often asking jurors to choose between three or four pre-selected options, and subsequent follow-up questions to consider. The jurors participate in a four to five day hearings, facilitated by a neutral moderator, where participants hear from “witnesses” so that they are exposed to a wide range of views on the issue. Jury members can then propose questions to the witnesses. The jurors then deliberate the information received and issue findings and recommendations to policy makers in writing in response to the charge (Crosby, 1995).

There are some general limitations to the citizen jury approach, however. First, the process is designed, like a criminal jury, to examine a narrowly defined charge. While jurors are encouraged to ask questions within that charge and to collect relevant information, the juries are limited in the amount of background information and training jurors receive in the issue and do not promote critical enquiry 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. Finally, unlike the criminal jury system, there is no guarantee that the sponsor agency will actually incorporate the results of the citizen jury into final decisions. There is a need for a clear mandate for agencies to use the results and a need for stakeholders to acknowledge the legitimacy of the jury process.

- *Consensus conferences/planning cells*

Consensus conferences (from Denmark) and planning cells (from Germany) represent two mechanisms to involve citizens in examining broadly defined questions of regional or national importance. While similar mechanisms, planning cells may address more narrowly defined questions than consensus conferences, may be held at the local level, and multiple planning cells may be held at once in different regions. Both mechanisms rely on randomly chosen citizens being trained in an issue, being able to reframe questions, and informing social debates on broad technological and policy issues before decisions have been made. They rely on citizen judgment and values in addressing problems of complexity and uncertainty. They both help to clarify the issues, questions, and concerns for and of the general public, introducing perspectives that may coincide with or be different from those held by experts and other traditional stakeholders. The consensus conference has been defined as:

“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 (Joss and Durant, 1994). The multi-day 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, cross-examination and questioning of experts, and other interaction with “experts”; and evaluation of questions and information through group (Dienel and Renn, 1995; Sclove and Scammel, 1999). Problems addressed by these lay panels are generally of current interest, well defined, and involve unresolved issues. The process is facilitated by a neutral third party. The sponsor of the panel generally has little role in the process, except as a witness. Results of the panel are generally widely distributed in the media and local hearings are held, both as a way to stimulate informed public debate and improve public understanding of technologies and to inform and influence decision-makers.

Consensus conferences generally result in broadly defined recommendations that address technological, social, and economic issues, beyond those normally addressed by experts. For example, a Norwegian lay panel on genetically modified foods found that 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. The process may not be appropriate where a yes/no decision is needed or where there are major inequities involved (Dienel and Renn, 1995). Further, the sponsor agency may not provide deference to the panel’s decisions (although in Europe these panels have had a strong influence in government deliberations). Finally, through random participation these panels may not adequately represent the populace, especially in a culturally diverse country such as the United States. A U.S. consensus conference on telecommunications, convened by the Loka Institute (www.loka.org), however, demonstrated that a large diversity of individuals could be convened to ask detailed technical questions, and issue far-reaching recommendations on a highly complex issues. Despite their limitations, the consensus conference process represents one “in which controversial and contested knowledge will be subjected to critical scrutiny, and through which lay citizens affected by 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, community planning and goal-setting exist that need to be explored. These form the heart of the careful social planning aspects of the Precautionary Principle. In Europe, several governments have undertaken “scenario workshops” to develop future visions for a country or region. They are a method for involving different groups of actors (residents, government, academics, business, etc.) in the assessment of possibilities and needs related to future technological developments – addressing broad “how” questions such as how to develop a sustainable community or how to address toxic contamination. Often these are combined with “backcasting” where goals are set and strategies developed to achieve those goals. In some European countries – particularly those where workplace co-determination exists – 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, we need to examine other models like 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 committed to implementing the Precautionary Principle in environmental health policy, using methods that attempt to make the decisions that affect each of our lives in a much more democratic manner. For more information contact:

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