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IGWA Forum Question/Answer on Risk Analysis justification of Limited Remediation

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IGWA Forum

Background: Private business and federal and state regulatory agencies have been moving within the last decade toward basing environmental, health, and safety decisions on risk analysis. Risk analysis is employed, for example, to justify locating polluting factories near population centers. Iowans currently face a shift to risk analysis in the underground storage tank program administered by DNR. Risk analysis seems always to cut in favor of a narrow economic interest to pollute. The following question is submitted (and replies solicited) by Rich Heathcote.

Forum Question: How do citizens and the environment benefit when risk analysis is used to justify limited remediation of hazardous waste sites or relaxed effluent and runoff limits for industry and agriculture?

Response by David Osterberg, former State Representative and Post Chair of the Energy and Environmental Protection Committee of the Iowa General Assembly. Currently he holds an adjunct faculty appointment in the Department of Geography at the University of Iowa.

Proponents of risk analysis presume there is little to be lost and much to be gained by letting the degree of risk from various environmental stressors set priorities for environmental protection.

However, while advantages may come from risk analysis, use of this rule for priority setting erodes citizen power.

The well known EPA report *Unfinished Business*(1) and its more recent companion, *Reducing Risk*(2) call for a more prominent place for risk analysis in environmental decision-making. *Unfinished Business* showed EPA experts disagreeing with much of the agenda Congress conferred on the agency. Ranked high on risk but given low EPA effort were problems such as: indoor radon, indoor air pollution, stratospheric ozone, global warming, non-point discharges to water and worker exposure. On the other hand, problem areas with too many resources in relation to their riskiness were: Underground storage tanks, RCRA sites, municipal non-hazardous waste sites and superfund sites.

The EPA report also found that while Congress's agenda was out of step with EPA scientists, it was pretty much in step with the American people as confirmed by citizen polling. The people, it seems, were wrong about the important environmental problems and used the political process to push EPA in the wrong directions. Too much attention to low risk environmental problems rather than too little attention to high risk problems is behind the call for introducing more risk into setting environmental priorities.

It is not surprising that local, identifiable sites where toxic waste or dangerous materials are accommodated would cause citizen unhappiness and result in demands to congressmen to work on the problem. Fighting a waste site is a quintessential people's movement issue. One can organize a demonstration around an incinerator. People will petition and scare even the most unsympathetic elected

official into believing something should be done about a toxic site.

EPA has not gone nearly as far in bringing risk into environmental decision-making as the present Congress proposes to do. The House passed a risk assessment bill in March of this year. It would require the Office of Management and Budget (OMB) to determine the severity of health risks addressed by each federal program, the number of individuals affected, and the cost-effectiveness of regulations as well as possible alternative efforts to reduce public health risks. The Senate's risk bill, S. 343 failed to gather sufficient support (60 votes) to take it to a vote but senators are still working on it. The Congress has gone so far in bringing risk into the environmental debate that the mildly pro-risk EPA has asked for a Presidential veto if either of the current bills passes Congress.

While EPA and Congress will argue about how much attention should be given to risk analysis, most environmental professionals see some expansion in the use of risk analysis as a good thing. This endorsement of risk analysis seems not to recognize that more reliance on risk means eroding the role of citizens in combating pollution.

Ecologist Barry Commoner advocates citizen power over risk analysis. He shows that risk analysis is really only useful for environmental protection activities known as command & control (setting standards and enforcing them). However, pollution prevention (getting toxics out of the production process so treatment is no longer necessary) is a more efficient means of eliminating the problems posed by risky substances(3). What is Commoner's evidence? Of the six priority air pollutants, only lead has been

removed from the air in any substantial amount. With water pollution, of the common substances polluting streams and lakes, only phosphates are on their way out. The air and water are getting better because lead was banned in gasoline and phosphates were removed from detergents. Commoner lists DDT, PCBs, and Strontium 90 as other examples of preventing pollution by banning chemicals.

First, pollution prevention is the superior, cheaper policy. Second, the driving force behind pollution prevention is the citizenry, not experts armed with risk analysis. People get products banned, not scientific papers, says Commoner.

Andrew Szasz in his recent book, *Ecopopulism*(4) describes what is behind the phenomena of companies eliminating toxic chemicals from production processes (adopt pollution prevention) rather than just more treatment. This has happened, Szasz claims, because of what he calls the "scissor effect" working on toxic wastes.

One blade of the scissor is more regulation: higher cost for disposal, greater liabilities under the Superfund law and risk of third-party liability. The other blade is people's opposition to specific toxic waste sites and the terrible press many companies have received because of their toxic releases. Both blades are propelled by citizen distrust of toxics. Pollution prevention, the cheapest and best solution to the problems of risks from toxic waste, depends on citizens simply saying no to waste facilities.

If Szasz and Commoner are correct about local, non-scientific based protests forcing firms to adopt pollution prevention, then listening to the experts rather than the people will substitute more expensive treatment technologies for cheaper product elimination policy. More seriously, advancing risk assessment and demoting citizen power may weaken the whole environmental movement. Risk assessment will not only lead to different people setting priorities on environmental protection. It may lead to less environmental protection.

The risk debate is really not so much science as it is politics. Those who want to build nuclear power plants and site toxic waste facilities are cross with people who refuse to accept risks which experts

claim are not really that bad, certainly not as bad as cigarettes and radon. Risk analysis can serve as industry's weapon.

However, when industry gets its hands on more powerful weapons, like a compliant Congress willing to do whatever they ask, risk goes out the window. The same Congress that wants more risk assessment is willing to get rid of regulations that phase out ozone-destroying chemicals. The preponderance of scientific evidence calls these chemicals very risky, but Congress is unimpressed. Furthermore, when the House approved a \$21.5 billion science bill on October 12, it explicitly prohibited the EPA from conducting any research on global warming(5) hoping to stifle more reports on the potential risks. When someone may be able to make money using polluting processes, the new Congress is willing to ignore risk and embrace profits.

The risk debate is fueled by a distrust by administrative agencies and other scientists of the seemingly irrational and inefficient democratic process. Letting people decide what they want government to do about the environment is far from perfect. However, scientists should remember that when the people are not allowed to make the environmental choices it does not necessarily mean that scientists get to decide either.

References

1. *Unfinished Business: A Comparative Assessment of Environmental Problems* (U.S. EPA, 1987)
2. *Reducing Risk: Setting Priorities and Strategies for Environmental Protection* (U.S. EPA, 1990)
3. Barry Commoner, "Pollution Prevention: Putting Comparative Risk Assessment in its Place," In **Worst Things First?** edited by Adam M. Finkel and Dominic Golding, (RFF 1994)
4. Andrew Szasz, *EcoPopulism: Toxic Waste and the Movement for Environmental Justice* (University of Minnesota Press, 1994)
5. Peter Montague, "Ignorance is Strength," *Rachel's Environment & Health Weekly* #467, (Environmental Research Foundation, November 9, 1995).