

# THE ROLE OF RISK COMMUNICATION IN ENVIRONMENTAL DECISION-MAKING

L. Santos

Focus Group and Tufts University Department of Civil Engineering, Medford, MA, USA

Increasing concern over environmental problems and the public's general awareness of the importance of the environment has led many government agencies, industries and nongovernmental organizations (NGOs) to realize that effective environmental management is not possible without effective communication. Concern over hazardous waste management and cleaning up abandoned waste sites continues to grow and is of particular concern for Central and Eastern European countries.

Risk Communication is a relatively new concept. In 1986, at the first United States National Conference on Risk Communication there was a grudging recognition that the public no longer trusted government to govern and as a result, government had no choice but to communicate. In the United States as in much of Europe, laws have been passed which require an unprecedented access to information. As a result of this access to information and concern over incidents such as that which occurred in Seveso, Italy, Bhopal, India and the nuclear power plant failure at Chernobyl, public interest and demand for information have dramatically increased.

In spite of laws requiring access to information, communications research indicates that in the United States, there is still a general lack of trust or credibility regarding industry's willingness to acknowledge environmental problems or the government's willingness to take action. Individuals surveyed in six-state community surveys in 1988 and 1992 responded that government and industry would not act to correct problems unless forced to. Further, the public indicated that the process of obtaining information was often unsatisfactory and frustrating (1, 2). Thus, it is not surprising that the public and nongovernmental organizations frequently want information and may demand access to information. They view themselves as having direct stake in the process and often are directly or indirectly affected by the decisions that are made.

While historically communication has been viewed as allowing or providing access to information, in many countries, the complex nature of environmental decisions has led to the recognition that simply imparting information or allowing for access to information may not be enough.

## RISK COMMUNICATION

In 1989, the National Research Council published the first major report on Risk Communication. In that document, Risk Communication was defined as:

"Risk Communication is an interactive process of exchange of information and opinions among individuals, groups and institutions. It involves multiple messages about the nature of risk and other messages not strictly about risk, that express concerns, opinions or reactions to risk messages or to legal and institutional arrangements for risk management." (3).

Even with this definition, the "goal" or objectives of Risk Communication are often challenged – as to whether the goal is simply to **inform**, or whether it's to **involve** people in decision-making. Communities and government agencies often have very different notions of what public participation or involvement looks like. In the U.S., involvement is often perceived as community ratification of agency decisions rather

than community input or any real say in decision-making. While government may feel that the public "participated" in the process by commenting on its plan, regulations or decisions, the affected stakeholder may feel quite differently. This difference often leads to conflict and distrust.

This paper uses the term "Risk Communication", to refer to processes that combine access to information with mechanisms for public involvement. Hance et al. (4) reviewed literature in the United States and conducted interviews to determine reasons for government agencies to encourage citizen involvement. The authors found that: (a) People are entitled to be involved in issues that directly affect them. (b) Involvement leads to greater understanding of – and more appropriate reactions to – the particular environmental risk. (c) The input of those who live with the risk every day and are familiar with their own needs can lead to better decisions and solutions. (d) Cooperation between government, industry and citizens can increase credibility, and facilitate decision-making. It is likely that these reasons extend to Central and Eastern European countries – especially, in the context of hazardous waste management.

Routine functions of government rarely demand very much interaction with the public. However, increasing the level of public participation is important when (a) controversy exists; (b) feelings run high; (c) government genuinely needs input; (d) citizens request the opportunity (or demand the right) to participate. These conditions often seem to exist in the context of hazardous waste management issues.

Risk Communication recognizes not only the public's right to receive information and be adequately informed, but the right to be actively involved in both the dialogue regarding the nature of the risk and in decisions about ways to minimize or control identified risks. This dialogue needs to include issues regarding risk assessment (Is there a risk? What is it and how bad is it?), and risk management (What should we do to reduce the risk? How can we solve the problem?) In this context, Risk Communication about hazardous waste management issues goes beyond "explaining risk" and becomes a vehicle for creating partnerships among various stakeholders to facilitate decision-making.

It is normal to expect that conflicts may arise in developing and implementing hazardous waste management laws and the cleanup of contaminated sites. To resolve conflict and lead to more collaborative decision-making, citizens and NGOs should help define their role in the decision-making process. Part of this involves recognizing that environmental solutions require more than just consideration of technical information. Issues of risk acceptability often become part of the dialogue. Stakeholder's opinions, values and concerns need to be part of the decision-making process – even if the government ultimately makes the decision.

Recently, federal agencies in the U.S. such as the Department of Energy and Department of Defense (DOD) have recognized that just meeting "requirements" for public involvement through public meetings and formal public comment periods have not mitigated citizen concerns around hazardous waste site cleanup activities. Both of these agencies are attempting to broaden public involvement and consider