Environmental Democracy in Action: The Toxics Release Inventory

FRANCES M. LYNN*
Department of Environmental Sciences and Engineering
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27599-8165, USA

JACK D. KARTEZ
Hazard Reduction and Recovery Center
Texas A & M University
College Station, Texas 77843-3137, USA

ABSTRACT / The Toxics Release Inventory (TRI) created by the 1986 Emergency Planning and Community Right-to-Know Act initially received limited attention. During the early years of its implementation, the TRI has become the basis for a national experiment in voluntaristic problem solving among citizens and industry, but that process of environmental democracy hinges on citizens' ability to actually acquire, understand, and apply the new data on industrial toxic emissions. A national study of TRI-using organizations in the public and private sectors reveals that effective citizen access depends in part on the efforts of intermediary public interest groups to bridge individual needs and right-to-know data. Although the TRI has had early success as a supplement to conventional command and control regulation, questions exist about the extent to which state and federal government should or must provide special efforts to make environmental information access work for citizens.

In 1986, almost as an afterthought, the US Congress created the Toxics Release Inventory (TRI) by adding Section 313 to the Emergency Planning and Community Right to Know Act (EPCRA). EPCRA, as a result of the accident in Bhopal India, was itself hastily added to the massive Superfund Amendments and Reauthorization Act (SARA), as the free-standing Title III. Thus began an experiment in a democratic supplement to conventional command and control regulation. The TRI can rightly be viewed as a complement to regulation in the same way the marketable pollution rights of the 1990 Clean Air Act Amendments are viewed, but in this case the innovation is based on a market of information. The TRI has produced positive consequences for democratic norms, collaborative decision making, and corporate efficiency, as well as environmental quality.

In brief, the Toxics Release Inventory requires manufacturing facilities that use threshold amounts of more than 300 chemicals to report publicly their estimated annual toxic emissions to land, air, and water, or shipments of waste off-site. In 1989, almost 22,000 facilities reported approximately 6 billion pounds of the toxic emissions covered by the law.

Although controversy continues about the accuracy of TRI data, and there is debate about the need to expand coverage from manufacturing to other economic sectors as well as other chemicals, the issue of public access is at the heart of the TRI as an experiment in environmental democracy.

What makes the TRI unique among US information disclosure laws is that Congress required the US Environmental Protection Agency (EPA) to make the TRI data accessible to the general public in practice, not just statutory promise, through an on-line data base and "other means." One federal Office of Management and Budget official recently observed that the EPA could never have provided the special TRI data dissemination services that it has without that explicit statutory requirement (Bass 1992).

The EPA met the on-line requirement by creating a TRI data base as part of the existing National Library of Medicine (NLM) TOXNET computer system, which is accessible by the phone modem and personal computer. The EPA also provided six additional access ports. They include: printed lists, desktop computer diskettes for state-by-state data, CD-ROM disks, magnetic tape, an annual written book length summary (the National Report), and microfiche records distributed to over 2000 libraries.

This article reports on a multifaceted, nationwide investigation of the effectiveness of the promise of access to the TRI and its significance. Originally conceived in discussions with EPA staff about needs to assess data dissemination techniques, this research examines issues of use and impact on the data, beyond the question of technical access alone. While our findings are important for the programmatic manage-

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*Author to whom correspondence should be addressed.
ment of the TRI by the EPA and for the design of other public access data bases (see Lynn and others 1992), there are also broader implications for the use of information as a policy tool and for debates about the involvement of the public in technological and environmental policy. We outline some of those broader issues before presenting the study and its findings and return to general implications in our conclusions.

Information as a Policy Tool

Government officials, citizen activists, and industry seem to agree that it is “revolutionary” to foster toxic pollution emissions reductions by putting previously hidden environmental information directly into the hands of citizens. In a US document prepared for the Rio Earth Summit, former EPA Administrator William Reilly described the TRI as a new and “powerful tool for protecting the environment and promoting environmental democracy” (US EPA 1992).

One of the Toxics Release Inventory’s early successes is the role that it has played in promoting the voluntary reduction of toxic emissions by industry. The most publicized case of the influence of public disclosure was the pledge made by Monsanto’s CEO, just prior to the first release of TRI data five years ago, to reduce air emissions by 90%. His decision was echoed by a number of other corporations such as 3M and Dupont. The demonstration that information can indeed spur to internal self-regulation by industry was seized on by Administrator Reilly as good reason to advocate and establish the voluntary “33/50” program, which calls on manufacturers to voluntarily halve certain priority toxic emissions by 1995. This impact of the TRI in changing corporate behavior supports studies that suggest that negative public relations is one of the main motivators in the growing commitment of companies to operate in an environmentally responsible manner (Myolandis 1991, Cebon 1991).

Good public relations is a narrow basis on which to hinge environmental health policy. The TRI has also been viewed as “information empowerment” for affected citizens, by EPA officials (Shabecoff 1988), and scholarly observers (Hadden 1989), as well as citizen activists. The effectiveness of public access to information becomes crucial when disclosure laws like the TRI are advocated as means to resolve power imbalances in environmental issues.

Although the TRI is in the general spirit of other product and worker safety laws that evolved in recent years, it has expanded the the long-standing American legal doctrine of disclosure in significant ways. Consumer labeling and worker hazard communication laws are predicted on the assumption (justified or not) that the affected parties can make informed and voluntary choices about changing products or places of employment (cf., Mendeloff 1988, Baram 1986, Hadden 1986, 1989). Unlike those disclosure laws, the TRI generally applies to involuntary threats (e.g., from chronic toxic pollution). The expectation has been that public access to such information could lead to greater citizen leverage for policy changes and proposals for action that might change the nature of the hazard, not simply warn individuals away from existing dangers.

The argument for information disclosure as a supplement to regulation has also been based on recognition that standardized regulations are insufficient as a single response to environmental problems. Diversity of technologies and local conditions often demands case-by-case flexibility in solutions. National uniform standards cannot easily provide such flexibility on an a priori scientific/technical basis because of the great costs of development and administration (Sullivan 1982).

Not only would information disclosure, it was argued, allow people to watchdog private activity, but it could spur private self-regulation (Bardach and Kagan 1982). The argument is that much internal self-regulation already takes place among a firm’s employees. Disclosure to an activist public would reinforce the internal actions of professionals trying to change a firm’s practices. Both external (citizen) and internal (professional) pressures can instigate the creative search for change within a firm that uniform regulation often does not, according to this argument.

Questions about Information as a Public Policy Tool

As with other forms of participatory and seemingly progressive social decision processes, questions have been raised about both the adequacy and appropriateness of public access to right-to-know and other risk-related data. Social risk management scholars have speculated about whether citizens would have sufficient money, time, and expertise to be able to interpret meaningfully the health and environmental implications of the raw data on toxic emissions (Lave 1990, Hadden 1989, Fiorino 1988). Such questions have long been raised about educational and social barriers to all forms of pluralistic citizen involvement in democratic societies (e.g., Verba and Nie 1972).