

The Failure of Economics in Environmental Management

Public Policies for Environmental Protection.
Edited by Paul R. Portney Washington, DC Resources for the Future, 1990, 323 pages, \$25 (hardcover), \$9.95 (paperback)

Reviewed by James A. Tobey

Economics has not had a big impact on the design of environmental policy. This is somewhat ironic since the problem of pollution as the archetype market failure has been known for so long. In reading this book, one might suspect that the modest effect of economics on the design of environmental policy can be partly attributed to the fact that economic analysis relies on the neoclassical framework, which does not give institutional and political considerations a large role. For whatever reason, as Paul Portney observes, environmental economists "are perceived as being blind (or at least myopic) to the real-world problems that would arise in implementing solutions that look attractive in theory." This collection of contributed chapters, by a group of well-known professional economists, attempts to allay this perception by analyzing environmental policymaking from an institutional perspective and by suggesting realistic opportunities for increasing the efficiency of pollution control programs.

The text does not require prior knowledge of economics. Rather, it is directed toward a wide audience interested in the administration of U.S. environmental protection policies. The text is also uncluttered by references, but those who seek to explore issues in more detail will find the notes at the end of each chapter useful. Also benefiting from the text will be academic environmental economists who are experts in the intricacies of minimizing the costs of pollution control in theory but who are not well versed in the difficult linkages of environmental legislation and administration.

The book follows Portney's 1977 effort, *Current Issues in U.S. Environmental Policy*. The focus of environmental policy has changed since that book was released, with more concern now on hazardous wastes and toxic substances than on the now well-known problems of air and water quality. Portney's recent work comes at a timely juncture to step back and evaluate the historical performance of environmental legislation, much of which was introduced in the early 1970's.

The chapters target all the main areas of pollution policy: air, water, hazardous wastes, and toxic sub-

stances. In addition, Clifford Russell discusses monitoring and enforcement problems, areas of increasing importance since most firms have made the required initial capital investments for pollution control instruments but many may not be operating them. The chapters follow a consistent format. They briefly explore the evolution of current policy and the state of the environmental problem, discuss implementation mechanisms of current policies and sometimes offer some sense of the costs and benefits of policy, and make suggestions for increasing program efficacy. These suggestions are bounded by the constraints of present environmental legislation.

The text makes abundantly clear that the constraints of legislation are considerable and frequently politically driven. Portney suggests that both the New Source Performance Standards of the Clean Air Act and the Toxic Substances Control Act treat new and old pollution sources differently, introducing incentives that make environmental management more difficult. We learn that in order to get new environmental legislation passed the applecart must remain upright. Politics and income distribution issues are also behind the restriction that does not allow newly built electric powerplants to reduce sulfur dioxide emissions by switching from high-sulfur to low-sulfur coal. Fuel switching would endanger the jobs of a small number of high-sulfur coal miners, but it would also produce tremendous cost savings. Portney's point is not that all environmental laws are designed to advance hidden agendas, but rather that politics often makes environmental policy unnecessarily complex. Awareness of the less obvious consequences of laws and regulations may help one understand why a particular policy took the shape it did.

Environmental policy in the United States is now so developed and complex that it is a significant challenge to treat all the environmental media and issues in a single volume. The book should be praised for covering so much ground so succinctly. However, I could not help but notice the limited attention devoted to agricultural nonpoint source pollution problems (management of toxic substances, including pesticides) although the Federal Insecticide, Fungicide, and Rodenticide Act is discussed in detail. Portney suggests that water pollution from farms and other nonpoint sources has been overlooked altogether because of the political power of the parties that would be affected by tighter controls. While in the past this may be true, I think many would argue that ground water, surface water, and food quality issues associated with agriculture now rank as primary areas of U.S. environmental concern.

Tobey is an agricultural economist with the Resources and Technology Division, ERS.

Another policy area that I would like to have seen developed more is the role of environmental federalism in environmental policy. Environmental federalism is generally viewed favorably by economists. Management of local environmental problems is best introduced at the State or local level where the stringency of pollution control can be set according to local environmental preferences and costs.¹ Portney recognizes in the concluding chapter that local pollution control is one of three important trends that is likely to influence the direction of environmental policy changes, but otherwise the book does not address the issue.

What is the prognosis for environmental management and the role of economics? Portney answers this question in the concluding chapter. Both forecasts are hardly optimistic. Two elements are worth noting with respect to environmental management. First, the record on environmental improvements is poor. Only in the case of air quality can widespread improvements be shown. There is no clear indication that water quality has improved. Progress under both hazardous waste and toxic substances control has been modest and environmental enforcement efforts have been weak at best. Second, Portney suggests an increasing trend toward reducing the flexibility previously granted regulatory officials, an unwelcome development because an important lesson of the book is that flexibility and discretion are key to effective environ-

¹W. Baumol and W. Oates, *The Theory of Environmental Policy*, second edition, Cambridge University Press, pp. 284-96, 1988.

mental management, especially now. Environmental problems, Portney observes, are too diverse and complex for the use of uniform, across-the-board solutions.

The news for the role of economics is equally discouraging. Several recent environmental laws have moved away from allowing economic considerations in the determination and achievement of environmental standards. The 1980 Superfund Act, the 1984 amendments to the Resource Conservation and Recovery Act, and the 1986 amendments to Superfund are examples. With the exception of emissions trading under the "bubble" policy, the role of economics in the design of environmental policy to achieve environmental quality standards does not appear to have significantly increased since the 1970's. Clearly, much work still lies ahead. Perhaps the insights provided by this book and others like it will improve environmental policymaking by, among other things, showing the important role economics can play in environmental management.

The chapters include (1) "Introduction" by Paul Portney, (2) "The Evolution of Federal Regulation" by Paul Portney, (3) "Air Pollution Policy" by Paul Portney, (4) "Water Pollution Policy" by Myrick Freeman, (5) "Hazardous Wastes" by Roger Dower, (6) "Toxic Substances Policy" by Michael Shapiro, (7) "Monitoring and Enforcement" by Clifford Russell, (8) "Overall Assessment and Future Directions" by Paul Portney.

Public policies aimed at environmental protection date back to ancient times. The earliest sewers were constructed in Mohenjo-daro (Indus, or Harappan, civilization) and in Rome (ancient Roman civilization), which date back some 4,500 years and 2,700 years ago, respectively. Other civilizations implemented environmental laws.Â With nature and natural resources considered as economic drivers, environmental policy making was no longer the exclusive domain of government. Instead, private industry and nongovernmental organizations assumed greater responsibility for the environment. Also, the concept emphasized that individual people and their communities play a key role in the effective implementation of policies. Environmental policy.