

Publications

Randall Bluffstone and Bruce A. Larson (eds),
Controlling Pollution in Transition Economies: Theories and Methods, Edward Elgar Publishing Limited, Cheltenham, 1997. ISBN 1 85898 452 1

and

Péter Kaderják and John Powell (eds),
Economics for Environmental Policy in Transition Economies, Edward Elgar Publishing Limited, Cheltenham, 1997. ISBN 1 85898 531 5

EKKO VAN IERLAND
Wageningen Agricultural University

The purpose of the book *Controlling Pollution in Transition Economies* is 'to examine what the transition economies have been doing since 1989 or 1990 to improve environmental policy systems in order to achieve better environmental and economic outcomes than in the past'. The book contains thirteen chapters on environmental policy in Central and Eastern Europe and the Former Soviet Union, and is mainly based on a large number of projects and studies by economists from these regions and members of the Harvard Institute for International Development. For almost all countries in Central and Eastern Europe specific chapters are included.

A key issue in the book is an analysis of the experience with the application of economic instruments, such as charges and tradable discharge permits. The first two chapters contain an introduction to the book and a survey of pollution charge systems and key issues in policy design. The remaining chapters are devoted to individual country studies and the final chapter draws lessons and provides a possible blueprint for implementing pollution permit and charge systems in transition economies.

The theoretical framework in chapter 1 is well presented and gives a good overview of the standard theory of optimal pollution control by means of direct regulation, single charges and two-step charges. It also

pays attention to uncertainty about the shapes of the marginal damage cost function and the abatement cost function as discussed in the early work of Weitzman and Tietenberg. The chapter finishes with a discussion on the impact of investment in pollution control on output levels and related levels of emissions. It confirms that the final outcome depends on (1) the economic relationships between production technologies; (2) how production is generated; (3) how investment in pollution control alters these relationships; and (4) pollution charge levels. The authors conclude that the empirical studies do not yet provide conclusive answers to these questions. The chapter summarizes the main findings of the literature and does not pretend to make a real new contribution to the theory.

Chapter 2 deals with the question of the efficiency of private and public investment and raises the question under which circumstances part of the charges might be reinvested by private enterprise in pollution reduction. The potential efficiency gains, well known from the literature, which are acquired by moving from a permit system to a tradable permit systems, are also discussed.

The chapters on country studies provide very interesting and well-documented information about environmental policy and its reform, starting from 1990. Economic analysis and practical policy implications are nicely combined, and topics like implementability and enforcement receive proper attention. In most cases a gradual transition from direct regulation towards a mixed system can be observed, where standards, permits and charges (on emissions and natural resource use) are often combined. Usually a two-tier charge system is combined with environmental standards. Some of the countries seek integration with the European Union, which implies that further harmonization of environmental policies is to be expected in the future.

Clearly, monitoring of emissions and improvement of the emissions inventories need a lot of attention. Also, enforcement of existing regulations is not effective in many cases, requiring further attention in the near future. For example in Romania, standards are stricter than international recommendations, but actual pollution is far in excess of the standards. The authors also stress the need to more clearly define the environmental goals for the various categories of environmental pollution, in order to be able to check the performance of environmental policy in a systematic way. In several countries emission charges are not indexed, leading to rapidly declining levels of emission charges due to inflation.

The conclusions and recommendations in the final chapter are well chosen, oriented to practical policy making and offering scope for further harmonization, improved efficiency and effectiveness. Recommendations include: simplicity; focus on aggregated emission standards (not on individual sources); selection of priority areas; use of two-tier charge systems, preferably based on abatement costs functions; and use of penalty systems for liability and integration of pollution charges in existing tax systems.

The book contains very interesting and detailed material on environmental policy in the countries in transition. The structuring of the book—including a number of separate individual country studies—makes it difficult to get a proper overview of the differences between the various

countries. A reclassification and standardization of the various chapters, combined with tables in which the standards and systems are classified and compared in a consistent manner would be helpful to the reader.

In general the book is well written and interesting, not only for those who specialize in economics of transition, but also for those specializing in environmental economics in industrialized countries. Although the book does not directly provide insight into the actual environmental performance of the countries in question (probably due to a lack of reliable data on emissions and concentrations over the past years), it provides a firm theoretical and practical basis for improving environmental policies in the near future. An essential element for successful results will be economic improvement and political stability. Integration of economies in transition in the European Union could be helpful for both categories.

The book *Economics for Environmental Policy in Transition Economies; An analysis of the Hungarian Experience* contains a set of detailed studies on environmental policy in Hungary. Michael Toman opens with the statement that environmental issues matter in Eastern Europe; that setting priorities is challenging; that economic restructuring is essential and that cost-effectiveness is important. The reader will easily accept these statements and they are in line with the conclusions of the book discussed above. In addition to economic incentives through fees and taxes, he pleads for tradable permits, which at present might be problematic to implement, but may provide good results in the future.

Economic restructuring has played an important role in reducing pollution in economies in transition. Now substantial restructuring has taken place, further environmental improvement will largely depend on providing proper economic incentives leading to cleaner technologies. The book also confirms that privatization—important for many reasons—can contribute to environmental improvement, but does not necessarily do so. Much depends on the conditions of privatization and the corresponding introduction of environmental policies. An interesting chapter on environmental capital flight analyses the impact of environmental regulation on foreign direct investment in Hungary after 1990. Results support the evidence that to a small extent environmental regulation may impact direct foreign investment, but no strong evidence is found that it plays a dominant role. Given the tremendous changes that have taken place and the lack of suitable and reliable data, the statistical analysis is cumbersome and leaves much space for speculation.

Emission trading for air pollutants is advocated in a chapter by Ger Klaassen who emphasizes the theoretical gains that can be obtained. The institutional problems are however immense, and little information is given on how monitoring and enforcement could take place. The plea for flexibility in addition to existing regulations is certainly justified and offers scope for cost savings.

An interesting CVM study is reported which deals with the willingness to pay for improved air quality in Hungary. The study shows that the philosophy of the market and individual willingness to pay has reached the stage of actual CVM estimates. How policy makers will respond to the

results is yet to be seen, but clearly CVM studies in the local setting are much better than straightforward benefit transfers from different contexts.

The book finishes with a challenging chapter on the relationship between actual experience and textbook prescriptions. Kaderják challenges the proposition that integration would contribute to economic welfare and suggests that further harmonization of environmental policies might incur welfare losses. In addition, he asks questions about the proposition that energy pricing policies need top priority to improve the environment in Central and Eastern Europe, stressing the need for further institutional reform.

Harmonization of environmental policies might result in: (a) uniform product quality requirements; (b) uniform prescriptions for the use of 'best available technology' in certain production processes; (c) uniform emission reduction targets regarding certain pollutants expressed in the percentages of emissions of a certain base year; (d) uniform introduction of certain economic incentive regimes (for example, emission or product charges/taxes) in order to avoid certain environmental damage. Kaderják emphasizes differences in the demand for environmental quality in the EU and countries in Eastern and Central Europe, and shows the potential welfare losses of environmental tax harmonization resulting from these differences. Although this argument may be correct in theory, it is unlikely that, in the long run, trade distortions will be accepted on the basis of fundamentally different environmental policies in countries in the extended European Union. Kaderják seems to be rather pessimistic when he states 'Therefore, unless care is taken with their transplantation, the application of EU regulations in the Central and Eastern European Countries has the potential to conserve an unfortunate state, inherited from the Soviet regime, whereby the goals embodied in legal norms and the values and preferences of community members have little to do with each other.' Integration and harmonization of economic and environmental policies, in my opinion, would benefit both economic and environmental performance in Central and Eastern Europe.

Both books illustrate how rapidly institutional and political reforms have taken place and how modernization of economic and environmental policies in Central and Eastern Europe are taking place. For those interested in these topics, but also for the broader audience of environmental economists and policy makers the books can certainly be recommended.