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International Comparisons in Implementing Pollution Laws

PAUL B. DOWNING
KENNETH HANF

INTERNATIONAL COMPARISONS IN IMPLEMENTING POLLUTION LAWS

Edited by

Paul B. Downing
and
Kenneth Hanf

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PREFACE

This book is the culmination of a process that started in the summer of 1979. One of the editors was invited to work with several members of the International Institute for Environment and Society. These researchers were in the early stages of a rather ambitious project designed to study differences in the implementation of pollution control laws among European countries. Our discussions soon revealed that there was much to be learned by the sharing of our research findings in the United States and Europe. Discussions among the researchers at IIES suggested that we expected there to be wide cultural and institutional differences among countries and, therefore, significant differences in the operation and effectiveness of control efforts in different countries. It has been argued almost universally that differences in institutional form will lead to differences in pollution control outcomes. By comparing implementation in various countries, we could observe the effects of institutional differences. The IIES project was only one study of the implementation process. Perhaps by analyzing the results of various studies by various authors and for a wide variety of countries and situations, more could be learned. The conference idea was born.

The idea culminated in two conferences. The first conference was sponsored by the Policy Sciences Program at Florida State University and was held in Tallahassee, Florida, March 6–7, 1981. The second conference was sponsored by the IIES and was held in Berlin, Germany, October 1–3, 1981. As these conferences proceeded it became obvious that others were interested in our findings. This led us to seek publication of the papers. A source of relatively quick publication was a special symposium in the *Policy Studies Journal*, which was published in September, 1982. Due to space limitations the *PSJ* publication does not contain all of the arguments developed in these two conferences. The published papers had to be shortened. This was done at the loss of discussion of some issues. In addition, some valuable contributions had to be excluded. The book redresses these deficiencies by allowing authors more space and by including five chapters that were not in the symposium.

While this book is more complete than the *PSJ* symposium, it represents only a portion of the existing studies of

implementation of pollution laws and only a sample of the possible countries from which we might learn. We are not representing this book as the end of the study. Rather, it is the first progress report on what we hope will be a continuing and growing effort to understand implementation issues through cross-jurisdictional comparisons.

The editors wish to thank the International Institute for Environment and Society, a part of the Science Center, Berlin, and the Policy Sciences Program, Florida State University, and their staffs for all their help in organizing and funding the conferences, the *PSJ* issue, and this book. We also wish to thank Thomas Dye and the Policy Studies Organization for allowing us to produce this expanded version. Special thanks are due to Mary Schneider who produced the intermediate and final versions of this book.

Paul B. Downing
Kenneth Hanf

November, 1982

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Kenneth Hanf and Paul B. Downing

FROM GOOD INTENTIONS TO PERFORMANCE: THE BOTTOM LINE OF IMPLEMENTATION

In both Europe and the United States the late sixties and early seventies witnessed numerous far-reaching and important developments in the area of environmental protection. In country after country comprehensive programs of pollution control were passed and older programs of more modest scope expanded as national governments took on more responsibility for improving or maintaining the quality of the natural environment. After this initial flurry of legislative activity and the tooling up of the administrative apparatus to implement these programs, attention shifted to a critical examination of the results achieved.

As in other policy areas, so too here there has developed a growing realization that the results of the efforts to regulate industrial activity to prevent or reduce environmental pollution have time and again turned out to fall short of the original intentions of policy makers. To some this failure of the traditional regulatory approach to produce the desired results is not at all surprising. In those cases where this situation is not decried as one more instance of the general failure of regulation and grist for the deregulation mill, the call goes out for replacing the existing system of regulations and standards with some set of market-like economic incentives. Others, whose optimistic faith in the ability of such control programs, in principle, to achieve their stated objectives remains unbroken, offer structural or procedural prescriptions for improving the effectiveness of the implementation of environmental policy.

What is striking amidst all this critical clamor is how frequently the diagnosis and prescription of one or the other for improving or replacing inadequate regulatory instruments and practices are based on an inadequate understanding of how such programs are or might be implemented and of the factors that account for the behaviors observed and the results actually achieved in enforcing such programs.

This volume of essays is intended to be a contribution to closing this information-analysis gap with regard to the implementation of pollution control programs. It focuses quite explicitly and self-consciously on the empirical description and

analysis of a number of aspects of the implementation and enforcement of current regulatory programs in a number of countries in Europe and in the United States. The purpose of this chapter is to introduce some of the themes discussed in the individual chapters, as well as to outline a perspective from which to examine the behavior of actors involved in the implementation of environmental regulatory programs.

In the following chapters this common theme of focus is defined in different ways, with attention being drawn to different (varying) aspects of the implementation process. There are, first of all, those studies of the implementation of a control program that look at the overall results of a period of implementation activity without, however, examining the institutions and procedures through which these programs were executed. Here the emphasis is on a discussion of the extent to which the legislative intent was in fact translated into the desired results and, to the extent this was not the case, the problems encountered along the way are considered in terms of the appropriateness of the objectives set and the instruments chosen to pursue them.

While such studies begin with a program already in place, others focus on that phase of the implementation process that begins with the translation of general policy statements and authorizations into more concrete specification of emission quality standards to be applied to the different branches of industry. Here the focus is on the decision-making process, and the strategies employed by the various actors involved, at the level of program formulation.

And still other authors descend even further down the levels of the policy process to examine the enforcement process for environmental regulations, the implementation of environmental control programs in terms of the enforcement process in the sense of the granting of permits (or issuing of order), the monitoring of compliance and the taking of measures to ensure compliance in cases where infractions are detected. Along with those studies that focus still more narrowly upon regulatory enforcement as monitoring and sanctioning activities, such studies tend to draw upon material from specific regulatory decisions to examine the behavior of enforcement officials and other actors in the making of concrete decisions.

We find, therefore, roughly two groups of studies — with some combining elements of both approaches. On the one hand, there are those that concentrate on a discussion of the results and problems of implementation, with more or less attention to the organizational arrangements and procedures through which these activities are carried out. What is missing in these studies is a link between the overall implementation structure and the behavior of those actors

taking and shaping enforcement decisions. On the other hand, there are those studies that tend to focus on a narrower aspect of the implementaion process — standard setting or one of the other elements of the enforcement of these regulations — in order to examine the behavior of the various actors involved and the factors that shape that behavior.

Whatever it may mean, implementation draws our attention to the fact that after the dust has settled over statements of overall purpose, decisions on the range of acceptable control instruments, and the authorization of more detailed programmatic specification of how all these good intentions are to be carried out, there comes a time when the general control program must be applied to concrete cases or instances of behavior or activity. Although a complete description (and understanding) of the regulatory process must consider the interrelationships among these different stages (phases), the appropriate point of departure for an analysis of enforcement behavior and the factors that shape the interactions of agency officials, specific sources, and other interested parties is this interface between control instruments and individual activities to be regulated.

At present firms find themselves confronted by an increasing number of governmental regulations of both the more traditional economic and the newer so-called social regulatory types. How these regulations are enforced and what, in fact, is required of firms in complying with them are obviously important factors with which decisions regarding investments and plant operations must reckon. Indeed, these factors are important enough to bring firms to invest a certain amount of their resources in attempting to influence the way in which these regulatory programs are enforced and/or to modify the programs themselves. In short, for the firm the costs of government regulation will be determined by the extent to which the particular regulatory structure, representing a set of external constraints upon decision making by the firm, are subject to manipulation; i.e., actions by the firm can influence the manner in which enforcement officials will apply constraints in a given case.

Likewise, the extent to which the enforcement agency responsible for the implementation of a given control program for environmental quality is able to realize the objectives contained in the program will depend on its success in bringing the firm in question to comply with the conditions imposed on its behavior by the regulations. What may seem like a quite straightforward matter of enforcing formal legal requirements turns out to be something more complicated as the enforcement officials find themselves in a position where the formal authority and regulatory instruments turn out to be inadequate for achieving the purposes of the law.

As many students of the enforcement process have pointed out, it can be assumed that any concrete instance of enforcement is, at a minimum, potentially conflictive insofar as the structurally determined positions and material interests of the actors involved led them to have different interests and opinions regarding the measures required in connection with pollution control programs. It is at the enforcement level, however, that these conflicts must be confronted in concrete implementation episodes; i.e., the buck of conflict displacement cannot be easily be passed on since here some sort of action (or inaction) must be taken. This does not necessarily mean that the conflict involved will be resolved. It can be avoided by refusing to take action, or it can be reduced — without being removed — to a level where some kind of action (mutually acceptable) can be taken, albeit an enforcement action likely to fall short of what formally was required or expected. Thus, an enforcement agency, when confronted by concrete cases, may choose not to search agressively for and penalize those failing to comply with the regulations or the conditions of permits.

In any case, the importance of the enforcement stage for determining what, in fact, a given control program will mean to the firms being regulated as well as the public represented by the enforcement agency makes it interesting — both for enlarging our knowledge and understanding of the dynamics of this phase of policy making, and for establishing a basis on which to consider both the need and direction of possible reforms — to examine how environmental regulatory programs are actually implemented and what strategies are used by the different actors involved in pursuing their respective interests and dealing with the conflicts confronted in regulatory situations.

ENFORCEMENT DEFICIT OR THE REALITIES OF PROGRAM IMPLEMENTATION

In its annual report for 1974, the Federal German Council on Environmental Quality expressed its agreement with the opinion of various legal scholars that "environmental law suffered from a considerable enforcement deficit."[1] However, after asserting that such a deficit existed, the Council hastened to admit that little was known about either the extent of this problem or its nature and causes. The suggestions it advanced for coming to terms with the "inadequate enforcement of laws and regulations by state and local agencies" were familiar pleas for better training of personnel — including providing them with better information regarding the laws and regulations, the nature of the problem, and the need for a

broader perspective — and for a tighter integration and coordination of the insititutionally fragmented administrative jurisdictions and powers.

As an example of classical regulatory policy, air and water pollution controls in the Federal Republic of Germany operate with the legal instruments of orders, prohibitions and conditional permits. The logic of such policies is that they seek to effect desired behavior on the part of members of the designated target groups by applying and enforcing norms and standards. It is here that traditional law enforcement in the narrower sense is at home. In a study commissioned by the Council, Mayntz et al. (1978) observe that in such regulatory situations the legal norms embodying the policy objectives are not likely to be complied with by the target groups without the threat that appropriate sanctions will be applied in cases of noncompliance or violation of the standards.[2] This means that considerable effort and resources must be invested in control and monitoring activities, as well as in the prosecution and sanctioning of violators, if regulations are to be effectively enforced. However, according to the authors, regulatory enforcement problems arise from the fact that the practical limit to any further extension of inspections and more strict sanctions is often reached before the number of violations has been reduced to a minimum and the risk associated with noncompliance has therefore been maximized. That is, the costs to control agencies of increasing the probability of detection rise more rapidly than do the corresponding costs to the firms for noncompliance.

The study goes on to note that the failure to achieve or maintain the desired level of environmental quality can be attributed to two interrelated factors. Assuming that the instruments selected, if effectively applied, would be appropriate for reducing emissions to a point commensurate with the quality objectives, the immediate cause of deficiencies in policy enforcement is the failure of the target groups to behave in conformance with the intentions of the policy. This, in turn, is the consequence of shortcomings in the enforcement activities of control agencies that are not able to motivate the appropriate behavior on the part of the firms or other polluting sources.

A recent article on the situation in Switzerland also begins with the observation that the history of water pollution control and of environmental protection in general has been a history of problems of enforcement (Bussmann, 1980). These problems are seen as a consequence of Swiss executive federalism, which places responsibility for water quality control (both organizationally and with regard to the legal norms) jointly in the hands of federal, cantonal, and local actors. Consequently, the pursuit of water

quality objectives requires the close cooperation of organizational units on both the same and different hierarchical/jurisdictional levels.

In the German and Swiss cases the fact of bargaining was discovered as a phenomenon that caused enforcement outputs to diverge from policy goals. While some analysts have come to accept this state of affairs as a structurally determined feature of regulatory enforcement, others have sought ways of effectively reducing, if not eliminating, the opportunities for bargaining, and thereby achieving a higher coincidence between what control agencies do and what they were intended to do. There are, of course, other countries in which cooperation and bargaining between control agencies and firms is expected and actively sought and supported.[3]

In England and Wales, decisions on the acceptable quantity and quality of aqueous discharges have traditionally been left to the local enforcement authority, which is responsible for "conducting a dialogue with dischargers so as to find a mutually satisfactory solution" (Storey, 1979). The terms with regard to the concentration, volume, and nature of the effluent discharged, as incorporated in the formal consent document, are the outcome of discussions between the dischargers and the responsible water (river) authority. In his analysis of the economics of environmental law enforcement, Storey stresses the importance of this feature of the control system by noting that "although the Authority may have applied fixed standards for minor dischargers, consent conditions for the more significant effluents will be the product of protracted bargaining and discussion."

Once the conditions of consent have been agreed to, the enforcement procedures for ensuring that they are complied with are characterized by what Sorey describes as "a general reluctance to prosecute dischargers found breaching consent conditions." Again it will often be the minor rather than the major polluters who are likely to be prosecuted and brought to court. This approach to enforcement is justified by a line of reasoning that argues that it is preferable to ensure compliance through arm-twisting (defined as all forms of nonovert pressure that the authority can exert) rather than to enforce the law through the courts. In particular, it is felt that such prosecution is likely to be counterproductive since it would destroy the cooperation between the responsible authorities and the dischargers, which is seen as a major factor in improvement in the quality of water ways in England and Wales.

These, and other studies, document that, contrary to the model of regulatory policy, one finds unequal treatment of the regulated subjects as a result of the fact that policy enforcement occurs

through bargaining instead of according to the consistent, even-handed application of general decision rules. Under existing conditions, the real content of a regulation is, in effect, determined through interactions between the control agency and the target group in question that fix the conditions of conduct to be held as constituting compliance with the regulations.

REGULATORY ENFORCEMENT AS AN INTERACTIVE PROCESS: THE APPROPRIATE UNIT OF ANALYSIS

The bottom line of studies — both in Europe and the United States — is that what actually gets done with regard to pollution control policy is often (usually?) considerbly less than what was promised. Not surprisingly the recognition of this fact has led to an interest in finding out why, when viewed from the perspective of national policy makers, policies fail to have the desired or intended impact; i.e., why they are not put into effect. In search of an answer to these questions, analysts have come to ask, "What's wrong with the implementation process and with the organizations responsible for carrying out these policies?" (Hall, 1979). Viewed from the top, enforcement is seen as a process of subdividing a comprehensive mission into ever more specific tasks, into ever more operational objectives. From this perspective, the enforcement problem is one of "structuring and controlling the exercise of choice" (Diver, 1980). Such a "top-down enforcement policy" would consist of "a set of rules, increasingly specific as one descends the hierarchical ladder, for allocating resources among, and specifying the content of various surveillance and prosecutorial tasks."

Looking up from the bottom, the process of enforcement has a quite different appearance. According to Diver, from this perspective the enforcement of regulations can be viewed as ". . . a production process . . . a series of sequential screening operations" by means of which "a universe of regulated acts (is distilled) into a handful of legal consequences. . ." In this sense, the problem is not so much to carry out a policy as it is to meet a production demand.

While Diver tends to focus on behavior of agency officials as they go about making the various choices through which enforcement policy at the bottom becomes manifest, he also suggests a broader persepctive for the analysis of this process. He observes that the participants in this production process are locked in interdependent relationships. Thus the strategies and choices of the inspectors and prosecutors, which form the core of what Diver refers to as enforcement, depend on the actions of others, either in the form of inputs or support for their own actions or in the form of

predictions about the subsequent behavior of others shaping the immediate decisions of the actor in question.

Various studies of the enforcement process have noted that the implementation of environmental protection laws occurs through an "inter-organizational interaction system consisting of a variety of actors; e.g., enforcement agencies and industrial associations, other agencies, hierarchical superiors and those at the same levels, citizen groups and courts" (Hucke and Ullmann, 1980). Thus, for example, Mayntz and friends remind us that, despite the focus imposed on their study by various research-practical considerations, it is clearly not enough to examine the implementing authorities in isolation. Implementation is, they stress, an interaction process and, consequently, the "factors that determine this process, and its result, cannot be sought alone in the features of the implementing authorities, taken by themselves, but also in the characteristics of the other relevant actors and in the interactions taking place among the members of this actor system" (Mayntz et al., 1978).

Not surprisingly, we can find a similar situation with regard to the factors shaping the behavior of the agency. It too, in choosing its course of action, is confronted by the constraint under which any actor must operate: the existence of other actors — either those already engaged in a given interaction or those which could be mobilized should they perceive their interests to be affected.

From an economic perspective regulatory enforcement agencies employ a set of policy parameters to which a cost minimizing firm will react by producing different levels of emissions. In principle the agency can adjust or change these parameters by deciding how violations are to be defined, how much effort to invest in detecting violations, and what kinds of penalties to apply to provide incentives to comply. Downing and Watson have maintained that a firm's response to different enforcement actions will depend on what actions the control agency takes insofar as these actions will affect key variables in the cost calculation of the firm on the basis of with which actions it decides to comply. This means that the expense the firm is willing to incur to meet a standard will vary with the parameters of the problem. As the probability of inspection or being fined increases, the expected penalty is raised so that it is more likely that the cost of compliance will be lower than the expected cost of noncompliance (Downing and Watson, 1974).

Thus, in order to understand how the efficient level of control for the firm is determined we must consider the effects of several policy parameters that the control agency can manipulate. As Downing and Kimball remind us, it is "the combined effects of these policy parameters that produces the effective penalty and,