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Implementing international environmental policies

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8.1 Introduction

Earlier chapters in this book have shown that environmental problems do not respect national borders. It is also clear that the condition of the environment in any given country is not the result of the policies of the national government alone. To an increasing extent the quality of life in one country is affected by the impact on its environment of the activities of citizens of other countries. Consequently, in dealing with these kinds of environmental problems, some way must be found of gaining the co-operation of the governments of those other countries so as to influence the behaviour of the members of those societies who cause the discomfort of others.

However, although co-operation is essential in order to deal with these types of problems, it may be difficult to achieve. Indeed, in some cases, it may not happen at all. For, although international ecological interdependence has grown, sovereign states continue to be the primary actors on the stage of world politics. As a result, the interests that determine the willingness to co-operate and, ultimately, the shape of whatever collective policies and measures of implementation are decided upon tend to be defined by national rather than international or global concerns. Despite the pressures from different directions for some form of collaboration to serve mutual interests in environmental protection, international co-operation in dealing with these problems is not a foregone conclusion. On the contrary, governments 'may respond paradoxically to the erosion of their influence by clinging even more tightly to their powers' (Mathews, 1991, p.32–33).

This chapter focuses on the problem of implementing international regimes for environmental protection. In particular I shall discuss implementation as a complex process involving different stages and relationships between many different actors. In doing so I shall examine the constraints which must be overcome in order to achieve necessary co-operation among the various interests involved. The next section (8.2)

considers the central role of the nation state in ensuring the success or failure of international environmental regimes. It stresses the importance of the domestic social and political context both in shaping the nature of the regime and in influencing the course of implementation. Section 8.3, using the example of environmental programmes in the European Union, illustrates the problems and prospects for integrating environmental protection and economic performance in the process called 'ecological modernisation'. Continuing this general theme, Section 8.4 shows how implementation will be affected by the culture of the individual countries and the different levels of government within them. Another major actor is the business community which influences the balance between regulation and the market as means of policy implementation. The concluding section (8.5) argues that it is in the mutual interest of states to surrender some sovereignty to achieve the level of international co-operation necessary for environmental protection.

8.2 International regimes and the nation state

Institutional arrangements and international order

Nation states continue to be the most important actors in world affairs in a highly decentralised international system. Still, the absence of a central government at the international level does not necessarily rule out the possibility of creating international environmental regimes and the organisations needed to implement and administer them. The term 'anarchy', as traditionally used to characterise international society, does not mean that the international community is 'entirely without institutions and orderly procedures' (Keohane, 1989, p.1). As Keohane reminds us, if we want to understand world politics, 'we must keep in mind both decentralisation and institutionalisation' (ibid., 1989, p.5).

Institutional arrangements for international co-operation are now so numerous and so important that they have become a defining feature of the global political system of the second half of the 20th century (Jacobson, 1984). Many kinds of international institutions now exist that influence and guide the behaviour of individual governments and the interactions between individual actors. When the international community confronts a problem demanding the pooling of resources and common purpose, there are institutions to organise the specific arrangements to achieve the necessary co-operation between nation states. Such institutions help define the incentives states need in order to engage in co-operative efforts and make it possible for them to act in ways which they otherwise would not find attractive. Institutional arrangements affect the costs of alternative courses of actions as well as the way states view their own roles and the assumptions they make regarding the behaviour of others. In this way, international institutions fulfil the following functions. They:

- provide both a context and sets of procedures through which representatives of national governments can arrive at common understandings of environmental problems
- define shared meanings regarding the situation they face
- develop procedures to facilitate negotiations and decision making

- ensure the necessary measures to monitor compliance and guard against defection.

In these ways international institutions play an important role in facilitating mutually beneficial policy co-ordination among governments.

Domestic factors in international environmental co-operation

International co-operation is not something that is achieved (or missed) at a single given point in time. On the contrary, it tends to emerge from a long, often arduous process during which individual states come to realise, against the background of national demands and priorities, the need and advantages of joining forces with others. This international co-operation consists of a series of separate but interrelated activities extending over time. Young has suggested that the overall sequence or process of *regime formation* can be divided into three stages: prenegotiation, negotiation ('institutional bargaining') and postnegotiation (Young, 1994, p.83).

The phenomenon of international co-operation has been an object of concern to a good many scholars for some time. However, most studies have concentrated on the negotiations and interactions among states at the international level. Clearly, the outcome of efforts to generate international co-operation for the protection of the environment will not depend only on the availability and use of such international institutions. What happens in the international arena is important for determining the success of efforts to mobilise joint action to deal with transboundary environmental problems. However, such co-operation must be viewed as a complex process of multi-level problem solving which links decisions and developments taking place at both the domestic and the international levels. Yet, with some notable exceptions, international relations research has paid only limited attention to linkages between domestic and international politics.

Two points need to be emphasised when talking about international environmental co-operation. Firstly, the interests that shape collective measures for dealing with environmental degradation are national rather than international in character. This is also true of the institutional context within which national preferences are formulated and the resultant negotiated agreements are carried out. Secondly, in order to understand the processes of international co-operation and the role played by institutions in facilitating and structuring efforts to mobilise joint or co-ordinated action on environmental problems, we need to examine the developments that precede any decision by a particular country to join in searching for a mutually acceptable way of dealing with an international problem as well as those that follow, once the agreement has been signed, in carrying out the obligations or commitments entered into.

Each phase of this co-operative process has both an international and domestic dimension. For example, while the pre-negotiation stage will involve international meetings – of scientists, representatives of concerned governments and working parties – there will also be parallel activities at the national level. Indeed, the decision by the national governments (the 'states') to enter into negotiations on some kind of formal agreement, regulating the scope and content of co-operative action to deal with a particular problem, will be a product of the interaction of domestic and international decision-making processes. Likewise, the national position that the representatives of

a given country take to these international negotiations will also be shaped by this same set of processes.

For this reason, when looking for the factors that determine success and failure in attempts to find and apply co-operative solutions to international environmental problems, we must consider the domestic setting of decision making and not only in the interstate game. If we wish to understand what is likely to happen at the international level, it is necessary to examine the processes, structures and values at the national unit level which determine the manner in which national positions on negotiating international agreements are arrived at and the ultimate agreements are then carried out (see Box 1).

The effectiveness of international regimes

It is the implementation of agreements that is the area *par excellence* for examining the impact of domestic processes and structures on the ultimate effectiveness of international co-operation. International environmental agreements are designed to have an effect on different categories of (societal) activities which are perceived as harming the environment. Even if agreement can be reached regarding the nature of the problem and the actions that should be undertaken by the various parties in dealing with it, there still remains the challenge of translating this international agreement into the necessary national programmes and then applying them to bring about the kinds of behavioural changes required to 'solve' the problem. The effectiveness of these accords depends upon the actions taken by the states to effect these behavioural changes *within* their societies.

Ultimately, it is national decisions that affect environmental quality, even though international measures may be necessary to harmonise national measures. Needless to

Domestic underpinnings of international co-operation

State priorities and policies are determined by politicians at the head of national government, who are 'embedded in domestic and transnational civil society, which decisively constrains their identities and purposes'. Events and decisions at the international level '... create patterns of societal interests that influence governments via the "transmission belt" of domestic politics ...' (Moravcsik, 1993, p.483).

It is through domestic institutions and modes of political representation that national interests or goals emerge that states then bring to international negotiations. It would seem to follow, then, that if international organisations are to be effective in mobilising 'pressures for international regulation that enhances environmental protection', they will need to promote sufficient political concern for such measures within societies (Keohane, 1994, p.28). It is the combination of international pressure and domestic environmentalism that is crucial for putting pressure on national governments to participate in international environmental regimes.



Plate 8.1 The UN Summit on Climate Change, Berlin, 1 April 1995. Holding home-made posters proclaiming 'When will you start to think?' and 'Rio, Berlin – what are you going to fob us off with this time?', two girls take part in a children's demonstration on the sidelines of the Summit. Several hundred demonstrators called on the delegates to take more rapid action. Photo: ANP Foto

say, although states have signed many agreements, compliance is far from perfect and violations abound. Non-compliance continues to be an issue of broad concern in that many states lack the resources to implement accords or choose not to abide by them because the international system lacks a strong mechanism for enforcement. In this sense, effectiveness of international agreements is limited by the fact that monitoring and verification of domestic implementation of international accords are carried out predominantly by the states themselves.

The effectiveness of international agreements and the regimes that embody them, will depend on the extent to which national policy efforts actually comply with the new international obligations. For this reason, we will now look more closely at what happens when international environmental agreements are implemented by the countries that have signed them. This post-negotiation phase covers all those steps needed to transform an international agreement signed by the parties who have agreed to its terms into an actual institutional arrangement. It encompasses those administrative

actions at the national level which are intended to bring about the behavioural changes on the part of the relevant target groups and, thereby, to realise the objectives of the agreements.

The relative neglect of the implementation phase of international co-operation

The international 'policy' process does not end with the signing of a convention (unless we are dealing with a case of purely symbolic politics). Post-agreement activity for the realisation of the objectives of international co-operation is most important. It is, therefore, surprising how often this aspect is neglected in studies of international co-operation. The issue here is the ultimate effectiveness of the agreement (measured in terms of the impact of the agreement on the environmental problem to be dealt with): if there is no implementation, there is no 'real' policy. Nor is implementation merely a matter of 'compliance' in the narrow sense. On the contrary, it represents a complex political process that deserves attention in its own right (Hanf and Underdal, 1995).

This relative neglect of the implementation phase of international co-operation can, in part, be attributed to the fact that traditional foreign policy and security issues did not raise the same kinds of questions as those concerning international environmental agreements. The behavioural prescriptions or proscriptions such treaties contained were addressed in the first instance to the *state* itself (i.e. to the national government) and, in terms of the domestic forces involved, to a limited set of actors (even though the issues themselves could be of great importance to the society as a whole). International environmental problems and the agreements drawn up to deal with them tend to penetrate societies in a more pervasive and direct way and carry potentially high costs for important interests, such as producers and/or consumers of particular goods and services.

A second reason for the lack of attention to the implementation of international environmental agreements seems to be a misconception of what implementation is all about. Implementation must be seen as a distinct policy 'game', leaving its own imprint on the actual thrust of environmental policies. This approach places a different perspective on the problems faced in meeting international obligations; more specifically, it leads us to conceive of implementation 'failure' and 'success' as not only a matter of 'will' (deliberate choice) but also as a matter of *ability* and capacity to govern. Already, in deciding whether or not to join or conclude an agreement, decision makers will have made their calculations with an eye to the domestic interests that support or oppose the agreement. Indeed, whether or not a problem requiring international agreement even exists may be viewed differently by countries, in part as a function of their economic structure and the political power of different economic interests. For example, the unwillingness of the US government to agree on reductions of CO₂ emissions is due to its reluctance to bear the economic and political costs that would result from the impact that controls would have upon important societal interests. Likewise, different types of agreements on the measures to be taken will affect domestic interests in different ways. The regulation of emissions of CFCs involves a limited, more or less clearly visible, set of emitters; substitutes for these (or many of these) chemical compounds are available, at economically acceptable costs. On the

other hand, significant reductions of CO₂ emissions, involving a multitude of different kinds of emitters, would entail substantial costs for important segments of the population, some of which are of crucial economic (and political) importance.

Factors affecting domestic implementation of international treaties

It is important, therefore, to note that these international agreements are not formulated and certainly not implemented, in a vacuum. They enter a 'regulatory space' already occupied by a set of problem definitions and policy strategies. They must be fitted into ongoing programmes and preferences for particular policy instruments. The national programmes through which international obligations are to be met will be shaped within a set of institutional arrangements favouring particular actors and interests over others.

In the case of The Netherlands, for example, the measures taken to implement the CFC reduction goals of the Montreal Protocol have taken the form of a programme of co-operative regulation between government and industry, consistent with the overall national policy strategy of the country. Here, the bottom line of implementation involves actions by the Environmental Inspectorate of the national government to make sure that companies installing refrigeration employ at least one technician with the appropriate diploma, who has undergone training in the approved techniques for working with CFCs. Having one such employee is then a precondition for being recognised as a firm that can do business in this area. Such a 'strategy' for implementing international obligations also introduces new, in this case non-governmental, actors into the regulatory system: the STEK (Stichting Erkenningsregeling voor de Uitoefening van het Koeltechnisch Installatiebedrijf, roughly, the foundation for the certification of cooling equipment installing companies), an institute to which refrigeration firms must apply for certification that they possess the requisite competence to install and service installations containing CFCs. On the other hand, the US government has set up a marketable permit system consistent with the regulatory ideology and legal framework already in place. What a given country seeks through international negotiations and what commitments it ultimately finds acceptable, along with the way in which the agreements reached are translated into national action, will be a function of this ongoing political dialogue among domestic interests.

The implementation of an international environmental regime is thus a very complex process. There are, clearly, many points at which things can go wrong despite the best intentions of the actors involved. Given this complexity, what are some of the factors that ultimately determine how effective a regime will be in successfully carrying out its programme of activities? Which factors shape the capacity of members of international regimes to meet their obligations and responsibilities?

An important component of this implementation capacity will be the *vertical unity* of government, i.e. the division of authority and labour between different levels of government (Weale, 1992). To the extent that the authority to do what is required to implement an international agreement is in the hands of sub-national bodies and officials, one can easily imagine that environmental agencies at the national level will have to bargain with these sub-national actors over the conditions of implementation.

Such bargaining can, at a minimum, delay implementation but it may even thwart the efforts of the national government to honour commitments undertaken in international agreements. This is so particularly when we are dealing with environmental problems that are not strictly local in their ramifications. Whenever an activity located in one local government area imposes costs on another local government area, calculations of costs and benefits are likely to differ significantly from those of the nation at large. Everything else being equal, the greater the external costs imposed, the more the policy preferences of local government will deviate from those of central government. In such cases local actors in areas deriving economic benefits but bearing few environmental costs from an activity can be expected to be less favourable towards strict environmental measures than the national government. Conversely, local areas experiencing environmental costs created by activities elsewhere will favour strict regulation (see Box 2).

Whether or not such bargaining between national authorities and sub-national actors becomes necessary will also depend on the overall *policy strategy* selected at the national level for the implementation of the international agreement. The formal vertical division of labour does not, by itself, make a decentralised implementation inevitable. If a country, as in the case of the United States, chooses to implement the Montreal Protocol by means of a nationally organised and administered system of marketable emission rights, national decision makers will retain direct control and not be dependent on sub-national actors. On the other hand, an implementation programme based on emission reductions negotiated between industry and government, as we find in The Netherlands, means that national environmental officials have less direct control. However, in both cases national decision makers will have to depend on other sub-national public and private actors to supply important informational inputs

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Institutional fragmentation and effective policy co-ordination

The notion of 'vertical unity' gives the impression that the problems encountered in implementing international environmental agreements could be reduced – if not solved completely – if central decision makers were given more effective control over the actions of the sub-national actors on whom the execution of national programmes depends. This 'top-down' perspective means that the fact that national officials share responsibility for carrying out international agreements with other sub-national governmental – and, increasingly, non-governmental – actors makes it difficult to implement international obligations. This view implies that more centralised countries, such as France or the United Kingdom, should have less difficulty in this regard than federal countries, such as Germany or the United States. It is, however, doubtful that this will necessarily be the case. The structural differentiation that characterises the modern state, irrespective of its formal constitutional order, leads to varying degrees of *de facto* autonomy of the different actors involved in the various phases of the policy process. Consequently, effective implementation will require a variety of arrangements through which these actors are joined together.



Plate 8.2 Japanese graphic artists protest against French nuclear tests in the South Pacific, August 1995. Photo: ANP Foto

or services needed to carry out the implementation strategy chosen. In this sense, the implementation of international environmental agreements at the national level will always remain a multi-actor and multi-level process.

Although the interactions between negotiators at the international and domestic levels are likely to include estimations of the feasibility of implementing any eventual agreement, the implementation process has its own political logic and dynamic. This means that, even though the agreement was concluded in the belief that adequate political support would be forthcoming (and that the agreement would, therefore, be ratified), it may still prove difficult, if not impossible, to deliver the commitments made; or the measures designed to implement the accord may look quite different from what was intended before the agreement was negotiated. An appreciation of the difficulties involved in moving from international agreement to national action and, ultimately, on to the required behavioural changes on the part of society's members suggests that instances of *involuntary* defection may be at least as frequent and interesting as 'cheating' by deliberate choice.

What emerges from this description of the way environmental regimes operate is a picture of a *multi-level complex* of norm-setting and rule-implementing activities, performed by different sets of actors at both the national and international levels.

Approached in terms of a series of interrelated national and international activities, regime implementation is more than a matter of national compliance with specific obligations. A number of separate, yet linked, networks join public and private actors in the performance of these different functions. Together they determine to what extent a regime will achieve the intended behavioural changes within the individual countries concerned.

8.3 Environmental problem solving in the context of the European Union

In the structure of international environmental co-operation, the European Union occupies a particularly important position. Observers have long wrestled with questions regarding the nature of the 'European Union' (EU) and how it is likely to develop further and with what consequences for the national governments of its member states. Whatever it may become, the environmental policy of the EU is already an extremely important source of constraints on business and other kinds of activities within its member states. In addition, the EU, acting through the European Commission, participates in international environmental negotiations in other institutional arenas with considerable consequences for both its own member states and the world community at large.

As far as business and government within the member states are concerned, the EU has become a key source of environmental legislation. It sets important parameters within which national policy takes shape. It has had its own environmental policy since 1973, the year in which the First Environment Action Programme of what was then still the European Community was approved (Hildebrand, 1992; Lefferink, *et al.*, 1994). For our purposes, the details of the specific regulatory programmes are less important than the strategic concepts which have guided the overall development of the Union's policy. In particular, what is interesting for us is the emerging redefinition of the relations between economic activity within the Community (the promotion of which was initially and still is the primary concern of the EU) and the management of environmental quality. In order to suggest the way in which the notion of sustainability has come to occupy a central place in this strategic concept, we will look a bit more closely at the more recent Environment Action Programmes. These will indicate the kinds of demands that Community policy is making on its member states. In particular, it will be of interest to note the adjustments these countries need to make in the way they manage the relationships between environmental quality and economic development and the kinds of institutional changes necessary to meet these demands (Weale, 1992 and 1993, provide an overall discussion of the environmental strategy of the EU; see also Chapter 5 of this book, for an historical overview).

Redefining the relation between environment and economy

In 1992 the Commission presented its proposal for a Fifth Environment Action Programme for approval to the Council of Ministers. This programme was intended to serve as the framework for dealing with what was seen as 'one of the most important tasks of the Community in the 1990s', to wit the 'reconciliation of social-economic

development with the maintenance and protection of the environment' (Commission, 1992, p.19). In pursuit of this objective, the programme offered a fundamentally different approach to those of the other four programmes. The emphasis now lies upon the actors and activities that cause the exhaustion (exploitation) of natural resources and other forms of disturbances in the environment, the so-called 'target groups'.

Although this action programme has been touted as a significant 'break' or 'turning point' in Community policy, it represents a 'logical' development of a policy line that had been gradually evolving. Whereas the initial action programme in 1973 was primarily concerned with the problems different national environmental regulations might cause for the creation of a single European market (Hildebrand, 1992, p.25), the Third Programme (1982–1986) was already informed by the conviction that resources of the environment were the basis – and limits – of further economic and social development and improvement of the working situation. In adopting the Third Programme, the Council of Ministers explicitly recognised the benefits that environmental protection could offer the EU in terms of greater competitiveness. This theme was picked up and developed further in the Fourth Programme (1987–1992) in which it was argued that the measures taken to protect the quality of the environment would be an important stimulus to economic growth and would, consequently, work to facilitate creation of employment opportunities (Weale, 1993, p. 207). Just how far the traditional growth ethos of the Community has been 'greened' can be seen in the preamble to the Maastricht Treaty which speaks of 'balanced and sustainable economic and social progress' as the overall objective of the Community.

It has been argued for some time, then, that the increased economic growth, anticipated as a consequence of the completion of the internal market, cannot be sustained unless environmental considerations are taken into account. These must no longer be viewed as a potential limiting factor but rather as an incentive to greater efficiency and competitiveness of European industry. Instead of being seen as a burden on the economy, environmental protection is now to be considered a potential source of future growth. If a country intends to acquire or maintain a secure position in the international market place it will need the technical and production capability to respond to the increasing demand for environmental quality; it will need to manufacture goods whose production minimises pollution and to produce pollution control technology. Such a capability has become necessary because in the emerging global markets, the standards of acceptability of products will more and more be determined by the country with the most stringent pollution control standards. As Weale puts it: 'The future development of a postindustrial economy will depend upon (a country's) ability to produce high value, high quality products with stringent environmental standards enforced' (Weale, 1992, p.77).

In this sense, the ideology of 'ecological modernisation' (see Box 3) underlying the environmental quality management strategies of the Community and individual member states directly links the 'prospects for future economic development in an era of global markets with higher standards of pollution control and environmentally safe products and processes' (Weale, 1992, p.77).

A review of its Action Programmes reveals how the European Community attempted to reconcile its growing concern with environmental protection with its earlier and stronger, historic commitment to economic growth. By the Fifth Programme

Different dimensions of ecological modernisation

With its reconceptualisation of the relationship between economy and environment, the ideology of ecological modernisation marks a decisive break with the basic tenets of the first wave of environmental policy. This 'new belief system' has, according to Weale, '... challenged the fundamental assumption of the conventional wisdom ... that there was a zero-sum trade-off between economic prosperity and environmental concern'. On the contrary:

Instead of there being a conflict between concern for the economy and concern for the environment, the argument emerged ... that environmental protection to a high level was a precondition of long-term economic development. Without the maintenance of a healthy environment, the economy would be threatened, partly because environmental degradation threatened, partly because cleanup costs would inevitably expand and partly because environmental degradation threatened the social and physical resources upon which economic prosperity depended (Weale, 1992, p.31).

Furthermore, the redefinition of the relationship between the environment and the economy has affected other elements of the older belief systems: 'The challenge of ecological modernisation extends ... beyond the economic point that a sound environment is a necessary condition for long-term prosperity and it comes to embrace changes in the relationship between the state, its citizens and private corporations, as well as changes in the relationship between states' (Weale, 1992, p.31–32). It also leads to realignments – potential and actual – in the more traditional economic-feasibility coalition and the clean environment coalition. It is in this sense that 'ecological modernisation suggests a plural and variegated set of interests, with competing and different interpretations of what values are at stake in matters of environmental policy' (Weale, 1992, p.32).

The various strands out of which this ideology has been woven provide opportunities for different groups to give somewhat different interpretations and set different accents regarding what measures are specifically required. At the same time, the idea of 'ecological modernisation' does provide a common frame of reference or mode of discourse for a meeting of the minds – and interests – of actors who had, under earlier problem definitions, been on opposing sides of the debate. It suggests a way of finding win-win solutions to problems of integrating or balancing economic rationality and environmental quality. It provides a legitimising device for reframing public policy debate and development. By setting new accents and points of reference, the concept can potentially serve as an important source of policy ideas and principles. In this way it can be used to define new strategies of action which will call new actors on to the political scene, thereby laying the basis for the formation of new policy coalitions (Weale, 1992, p.78–79).

Community policy had evolved to a point where the twin imperatives of economic development and environmental protection were linked in a new way. At least at the level of official programmes, the earlier tension between these different sets of objectives had given way to the view that they were compatible and mutually reinforcing aims of policy.

The regulatory strategy of the Fifth Environment Action Programme

According to figures presented in the Fifth Environment Action Programme, the industrial sector accounts for approximately 25% of the wealth of the European Union. Not surprisingly, then, industrialisation is a key element of the economic development strategy of the Union. In this connection, one of the primary goals of the industrial policy of the EU is to create 'the framework and conditions for a strong, innovative industrial sector' (Commission, 1992, p.28). Ensuring the optimum conditions for the continued economic growth of the member states requires identifying the necessary long-term strategies to remain economically competitive in the global economic order. The further development of the internal market among the member countries of the European Union is the cornerstone of this policy.

At the same time, with regard to the exploitation of natural resources, consumption of energy and the generation of pollution and wastes, the industrial sector is one of the principal causes of environmental deterioration. All economic enterprises, although in varying combinations and degrees, ultimately use natural resources for processes and products, create wastes and contribute to the pollution of the air, water and soil. However, until now, these long-term social costs have been effectively internalised only to a limited extent in the costs of operating or the final products. The Fifth Action Programme states unequivocally that 'The perpetuation of this situation is not viable on either economic or environmental grounds' (Commission, 1992, p.27).

As the title of the Action Programme indicates, the policy strategy for the coming years is intended to transform 'the patterns of economic growth in the Community in such a way as to reach a sustainable development path' (Commission, 1992, p.25). The programme recognises that the implementation of such a strategy will require considerable change in almost all major policy areas in which the Community is involved; it will mean that environmental protection will have to be integrated into the definition and implementation of these Community policies, not just for the sake of the environment but also for the sake of the continued efficiency of other policy areas as well.

A policy focused on the agents and activities which damage the environment and deplete natural resources will require 'significant changes in current patterns of human consumption and behaviour' (Commission, 1992, p.19). Any attempt to get at the causes of environmental problems (e.g. excessive resource use and pollution) means that current trends and practices will have to be modified. In turn, these behavioural changes can only be realised if policy makers, at both the European and member state levels, make use of a broader range of policy instruments. Until now European environmental policy has largely been based on legislation and controls in the tradition of direct regulation. Of course, there will be a continuing need for legislative instruments to define the fundamentally desirable levels of environmental care and protection, as well as for setting the common standards compatible with the internal market. Still, as the Fifth Action Programme observes, it is '... not feasible to adopt a Directive or Regulation which says: "Thou shalt act in a sustainable manner" ' (Commission, 1992, p.64).

While juridical (or legislative) instruments will remain an important element in the arsenal, a second set of instruments, the so-called market-orientated instruments, is intended to play an increasingly important role. By means of these instruments, both

producers and consumers are to be motivated to a sustainable use of natural resources by being forced to calculate the external environmental costs in the prices of the product. In this way the market must ensure that environmentally friendly goods and services have a competitive advantage over those that cause pollution and waste. Examples of such instruments are: fiscal stimulation measures or charges; the environmental audit; the eco-label; and liability for environmental damage caused. Further measures are also being planned and in some cases have already been introduced, to give a new direction and thrust to the environment and industrial policy interface. This package of measures is intended to:

- 1 induce action designed to improve the management and control of the production processes
- 2 develop EU-wide product standards
- 3 promote the integration of effective waste management into the general management of firms
- 4 improve the capacity of consumers for making environmentally informed choices
- 5 provide the information necessary for the effective monitoring of both public and private activities and for making them more transparent.

Sustainable development through government regulation and market forces

The redefinition of the relation of economic growth and environmental protection, which underlies the notion of ecological modernisation, will have important consequences for the types of instruments deemed appropriate for effecting the necessary behavioural changes. In contrast to the earlier approach of building policy around a restrictive regulatory framework, the European Union has now embarked on the more positive task of constructing a balanced relationship between the use of environmental resources and economic activity within the member states. Box 4 quotes the relevant passage from the EC's Fifth Environment Action Programme.

In terms of policy it has been shown that the EC intends to use both legislative controls and market-orientated mechanisms to ensure that industry maintains an environmentally sound economic performance. The overall objective is to achieve sustainability of resources while, at the same time, providing for continued economic growth in Europe. In specific terms policies will be directed at reducing environmental impacts at different points in the product lifecycle which extends from product design through production and marketing to consumer use and waste management.

Such an approach requires that government play a more supportive and facilitating role. It is not expected that ecological modernisation will be realised by spontaneous adjustment by economic actors in response to moral imperatives or market forces. Public intervention (regulation) will be essential for ensuring that the relation between industry and the environment as posited by the notion of ecological modernisation in fact comes about. There is, therefore, a positive role for government to play – at both the national and the European level – in raising standards of environmental regulation as a spur to industrial innovation. It is in this connection that former Director General Brinkhorst argued that the right kind of government action, in the form of 'an effective environmental policy', will be required for 'our industrial survival in many areas'

The EU's search for sustainable development

One of the primary goals of the Community's industrial policy is to create the framework and conditions for a strong, innovative and competitive industrial sector, thereby ensuring the competitiveness and sustainability of Europe's industries Previous environment measures have tended to be proscriptive in character, with an emphasis on the 'thou shalt not' rather than the 'let's work together' approach. As a consequence, there has been a tendency to view industrialisation or economic development and environmental concern as being mutually hostile It is now clear that environmentally sound industry is no longer a matter of luxury but rather a matter of necessity In order to ensure that optimum conditions exist for continued economic growth within the Community ... it is essential to view environmental quality and economic growth as mutually dependent Under this Programme the dual approach of high environmental standards combined with positive incentives to even better performance should be applied in a co-ordinated manner to the different points in the *research-process-production-marketing-use-disposal chain* where industry and industrial products, may impact upon the Community's environmental resource base ... (Commission of the European Communities, *Towards Sustainability*, 1992, p.28).

Legislatively-based rules, standards and procedures will be used to provide incentives for environmentally friendly decisions on product design, investment and production. Measures are also to be taken to strengthen consumer awareness and to provide opportunities for consumer choice. Together these two different, but complementary pressures are supposed to create a market-driven and self-regulatory cycle that will encourage industry to move towards environmentally responsible production processes and products.

(quoted in Weale, 1992, p.78). However, while government policy and regulation will continue to play an essential role in shaping the conditions under which ecological modernisation can be achieved, it will not be a system of government intervention modelled on traditional direct regulation. The relationships between government (public authorities) and economic actors will also need to be adjusted to reflect the logic underlying the ideology defining both the objectives of this policy and the means for its achievement. The nature and role of Community environmental policy will, in turn, reflect processes already underway in many member states and provide a Community-wide framework to channel further developments.

While it will remain the task of the Community and the member states to determine the framework for and the conditions under which sustainable development is to be realised, it is expected that industrial enterprises, the ultimate targets of these policies, will participate actively in the efforts to move toward sustainability. The involvement of these industrial enterprises is but one aspect of the basic strategy which aims at the full integration of environmental and other relevant policies through the active participation of all the main actors in society (administrators, enterprises, general public). This is to be achieved through a broadening and deepening of the instruments for control and behavioural change. In particular, this will mean, as we have seen, that greater emphasis will be placed on market-based instruments.

Redefining the relationships between government and economic actors

The Fifth Environment Action Programme does not deal only with the critical substantive issues of European environmental protection. Even more importantly, it is designed to create a new interplay between the main groups of governmental and societal actors and the principal economic sectors, through the use of an extended and integrated range of instruments. The realisation of the objective of sustainable development requires a Union-wide framework within which other actors can work together. The framework can provide scope for co-ordinating and integrating the actions of individual member states in order to generate cumulative impact and to protect the integrity of other policy actions of EU, especially those relating to the internal market. These policy objectives cannot, however, be met by actions taken on the European level alone. On the contrary, successful policy will require a sharing of responsibility at all levels of society including governments, regional and local authorities, non-governmental organisations, financial institutions, production, distribution and retail enterprises and individual citizens (Commission, 1992, p.19).

Underlying the policy strategy of the Fifth Programme is the assumption that the general objective of sustainable development, as well as the various specific objectives included in the programme, can only be achieved by means of a joint effort by all parties in the form of 'partnership' (Brinkhorst and Klatte, 1993, p.73). In line with the 'subsidiarity principle' the Community is only supposed to come into action whenever and insofar as the objectives to be pursued cannot adequately be achieved by the member states alone and therefore, given the nature and scope of the problem, can better be realised by action at the Community level. The Fifth Programme, however, links the notion of subsidiarity with the idea of partnership or, as it is often referred to, joint responsibility. According to Brinkhorst and Klatte: 'Partnership does not so much mean a choice of the most suitable level of action to the exclusion of other levels' (Brinkhorst and Klatte, 1993, p.74). Rather, the issue is to find the most appropriate combination of different environmental instruments and 'actors' within the boundaries set by the existing allocation of tasks and powers between the Community, the member states, regional and local authorities.

Traditionally, EU environmental policy has relied heavily on legislation (a 'top-down' approach). The new strategy is based upon the 'active participation of all social-economic partners in the joint search for solutions for environmental problems and the realisation of sustainable development' (Brinkhorst and Klatte, 1993, p.74). Crucial for the success of this approach is the level and quality of the dialogue between the different actors in the context of active partnership. For its part, the Commission intends to promote and structure such a dialogue by providing a number of formally institutionalised arenas or fora (Commission, 1992, p.82–83). One such body will channel contacts between the various social-economic and governmental partners by establishing a general advisory body on environmental issues. This Advisory Council is supposed to function as a platform for consultation and information exchange on environmental matters between representatives of the diverse sectors and target groups from the member states. In addition, two other discussion groups or advisory bodies at EU level are intended to provide the framework for an effective dialogue of the kind

envisaged as part of a strategy of shared responsibility or partnership: an Implementation Network and a Policy Review Group. The Implementation Network, made up of representatives from the national and community authorities, will be charged with the practical application of the Community environmental regulations. It is expected to provide a vehicle for the exchange of practical experience in enforcing these programmes at the national level. The Policy Review Group is made up of representatives from the member states at the level of Director General and will facilitate co-ordination between the national policies of the 12 members and the policy of the Community.

In setting up these groups the Commission hopes it will be possible to create an institutional framework within which there can be 'better preparation of measures, including improved consultation arrangements, more effective integration with complementary measures, better practical follow up to legislative measures ... and stricter compliance checking and enforcement' (Commission, 1992, p.75). And, perhaps most important of all, these three groups can serve to promote, in an active way, a greater sense of responsibility among the principal actors involved in the formulation and implementation of European environmental policy.

8.4 Ecological modernisation and regulatory change in the member states of the European Union

Implementing EU policy in the member states

Through the various institutions, linking decision makers at the national and European levels, the European Union plays a central role in defining the normative context within which national environmental policy decisions are to be taken. However, it can only influence the implementation of this policy indirectly. Direct and final responsibility for carrying out EU environmental policy lies in the hands of the member states. Consequently, although the executive agent of the EU, the European Commission (EC), is formally responsible for the execution and enforcement of European policies, its powers and resources for doing so are limited. It is dependent on the willingness and the ability, of national administrative actors in the member states for the realisation of EU policy objectives. Based on previous experience, the record of the member states in carrying out environmental policy has left much to be desired. This is the case with regard to both the phase of 'formal implementation', i.e. the incorporation of EU directives into national law, and the phase of 'practical implementation', i.e. the application of these national programmes to effect the required changes in the behaviour of groups targeted by the directives.

For this reason, improving policy implementation has become an issue of top priority within the European Union. However, despite attempts to improve implementation and ensure compliance, the EU, acting through the Commission, cannot penetrate directly to the sub-national administrative structures of local and regional government, where much of the implementation of environmental policy actually takes place. Consequently, when it comes to the implementation stage, national

factors, such as policy style, level of economic development and political culture, play a key role in shaping the nature of the protection afforded to the environment. Therefore, in order to appreciate what is going on with regard to the implementation of EU policy, it is necessary to look at the interplay of politics and administration at the different levels of government in the member states.

Changing relations between government and business: regulatory strategies in the member states

In our earlier discussion of the implementation of international agreements we noted that 'implementation capacity' is a function of the properties of government itself (including the administrative system) as well as its relationship to society in general and the social groups directly affected by the regime in particular. Furthermore, implementation capacity is also related to 'implementation strategies'. The strategy needed to meet policy objectives – and how well 'equipped' a country is at a given point in time – will depend on the country's overall 'policy' which guides the selection of instruments and the division of labour between governmental and other actors required to carry it out. For example, The Netherlands has opted for the so-called 'target group approach' as a key element in its attempt to translate its general strategic commitment to sustainable development into specific reduction objectives for different groups of economic activities. Its capacity to implement its strategy can be judged by the extent to which institutional arrangements exist to 'organise' the collaboration between government and target groups and the extent to which actors involved are able to manage the relationships on which the success of this strategy ultimately will depend.



Plate 8.3 Mercedes-Benz: the symbol of the power exerted by business in contemporary society. Photo: Mercedes-Benz

In the overview of developments with regard to the environmental policy 'strategy' of the EU we observed that the strategic line laid out in the Fifth Action Programme leads on from developments already underway in a number of member states. In these countries the nature of public intervention in the economy is also undergoing significant change through which the regulatory relationship between government and economic actors is being redefined. Since the EU is dependent upon the member states to implement its environmental policy, a brief look at some of the main features of regulatory change within these countries can suggest the extent to which they are 'capable' of participating in the policy dialogue between member states and the Community and of implementing the environmental strategy of the EU.

In most countries in Western Europe, reducing the regulatory burden on business has occupied a central place on the political agenda. As an important element of governmental interventions under the heading of 'social regulation', environmental policies have been a prime target of these deregulation measures. However, deregulation in Western European countries has not lead to the abolition of, or even a fundamental alteration in, the basic set of regulatory constraints on economic activity through which the country's commitment to environmental quality has been defined. Nor has it brought about any significant changes in the mechanisms that hold the existing system of environmental regulation in place. The underlying regulatory impulse carrying these environmental policy measures remains operative and, therefore, continues to legitimate and give direction to regulatory intervention 'shaping' market behaviour in an environmentally friendly manner. For example, the deregulation programme in The Netherlands has resulted in a restructuring of regulatory space by creating the preconditions for (a particular kind of) self-regulation as an integral part of a larger system of government 'regulation' of environmentally relevant activities. This is a redefinition of the traditional regulatory relationship between government and the economy to create something that could be called 'co-operative self-regulation'. This involves, on the one hand, the freeing up of certain kinds of restraints so as to expose economic actors to the discipline of the market and on the other hand, 'creating' a market for environmental quality to which these actors can respond when making product and investment decisions.

Deregulation, re-regulation and self-regulation

Thus, in the last analysis, regulatory reform has been designed to provide increasing leeway for economic actors ('deregulation') in order to improve their ability to respond to market signals and developments. At the same time they have had to take responsibility for the development of pollution prevention strategies within the parameters set by the government's environmental policy objectives ('re-regulation'). Such a system of co-operative self-regulation not only provides economic actors with substantial freedom in deciding for themselves how they will meet these quality objectives; it also guarantees them an active role in co-determining what the general policy goals will mean for particular industrial branches and, ultimately, the individual firms. Both policy making and more specific rule making become processes of joint decision making based on extensive consultation and bargaining between government and target groups affected by governmental intervention.

In these countries, therefore, the renegotiation of the agreements governing the relations between government and economic actors has resulted in the restructuring of regulatory space around a point of equilibrium between concern for environmental quality on the part of economic actors and improved economic competitiveness of firms as a result of increased responsiveness to market forces. Both in response to political pressures from voters and action groups – forces at work in the traditional political market – and as a result of direct consultation and bargaining between government and representatives of economic sector(s), a regulatory framework has been created that in turn generates the ‘market’ forces which discipline the calculations of individual economic actors.

In order to understand how government intervention has worked to create such a regulated market for environmental quality, the following points should be kept in mind. At the ideological or programmatic level, deregulation has been carried by the call to unshackle business from ‘bureaucratic regulations’ and free it to respond to market forces. To the extent that society wishes to promote certain collective environmental quality objectives, it should be left to the firms themselves to decide the ways in which their activities can be brought into conformity with these objectives; they should be allowed to respond to the same kinds of market considerations that guide their decisions on investment and production. However, there is an important difference between deregulation in the area of economic regulation and deregulation with regard to social regulation. It is difficult to imagine what it would mean to determine environmental quality decisions on the basis of the free play of ‘market forces’. The original problem giving rise to government intervention in the first place was – and remains – that the market alone cannot deal adequately with the problem of the negative externalities of production which we experience as pollution. Consequently, there are no market forces to rely on or return to, once regulations have been lifted, to promote the politically defined objectives of socially acceptable environmental conditions (see Box 5).

On the other hand, as we have seen, deregulation is less about leaving environmental quality at the mercy of free market forces and more about the relation between the instruments to be used in pursuing these objectives and the impact of these policy

5

The limits to deregulation

Neither in the United States nor in Europe has deregulation meant an end to all regulation. Airlines have not been deregulated with respect to safety and newly deregulated or privatised industries are subject to national antitrust laws or to the competition rules of the European Community ... Deregulation often means less restrictive or rigid regulation, rather than no regulation ... In the field of (environmental) regulation ... the real issue is not deregulation but how to achieve the regulatory objectives by less burdensome methods ... Again, in Europe deregulation at the national level is often followed by re-regulation at the Community level, as in the case of Community-wide harmonisation of essential health and safety (as well as environmental) regulations (Majone, 1994, p.54).

constraints on the ability of the affected firm to act efficiently in the market place. Government intervention in private decision making to correct shortcomings of the market is not to be abolished by deregulation. Public authority is still to be used to influence economic behaviour in an environmentally 'friendly' direction. What is to be changed, within these continuing policy parameters, is the mix of instruments through which behaviour is affected. Both by rationalising the instruments of direct regulation and by making greater use of economic incentives, as well as by institutionalising self-regulation into the daily operations of the firm, more leeway is to be given to the firm to select its own response to the constraints of environmental regulation in making its market calculations. By simultaneously retaining the objectives of environmental regulation and increasing the firm's ability to adapt to the market, it is assumed that the goals of economic development and a socially efficient environmental protection can be achieved together.

Co-operative regulation: government policy and the market for environmental quality

All well and good, as long as we keep in mind that government regulation continues to be the basis on which the effectiveness of these alternative instruments of environmental policy depends. Consequently, if 'care of the environment' is to become 'good business' (practice), there will have to be some kind of 'market' (economic bottom line) conditions or incentives to stimulate and carry this commitment. It would, clearly, be unrealistic to expect industrial managers to take actions that undermine or are at odds with the well-understood economic interests of their firm. Their commitment to environmental responsibility needs to be 'carried' by its consistency with market logic. At the same time, however, if the fundamental 'economic' cause of environmental pollution is the failure of the market (under 'normal conditions') to provide the signals that would force economic decision makers to internalise all the relevant costs of production/consumption, then these 'signals' (prices) have to be introduced by government (external) action. In this important sense, then, it is the regulatory activity of government (in response to the politically articulated will of the community) that creates the 'market' situation in terms of which firms calculate the cost/benefit ratios of responses to economic incentives for environmentally sound behaviour or to the attractiveness of governmental initiatives on pollution prevention. While industrial managers may indeed be moved by notions of moral responsibility and personal feelings regarding environmental quality, they will, in the last analysis, act on the basis of economic rationality (Hanf, 1994). If pollution prevention is to pay (i.e. be in the long-term economic interest of firms in the broadest sense, not just in terms of 'short-term, immediate profit'), government policy must help structure the market so that it provides appropriate signals for calculating these payoffs (see Box 6).

Co-operative self-regulation within such a regulated market for environmental quality has also led to the enlargement of the community of relevant actors, involved both in negotiating the regulatory agreements and in the functioning of the markets these measures create. A number of actors in addition to national government participate in the translation of general objectives into operative goals and procedures. These include representatives from sub-national governmental authorities, the target groups

The Dutch implementation strategy for environmental policy

The final responsibility for implementing policy lies with the target groups. In an ideal situation the target groups would modify their behaviour so as to realise sustainable development. Although there is broad collective support for the principle, there are often conflicts with the particular interests of individuals and enterprises. Implementation will be pursued and instruments chosen so as to achieve a better coincidence of collective and individual interests The scope given to target groups, provinces and municipalities and intermediary organisations, to make their own choices can be enlarged, within a clear framework. The targets set for target groups, an essential component of this framework, are fixed in an open planning process in consultation with each group, such that the overall theme objectives are achieved. It is the responsibility of the target groups to achieve their targets.

It is up to each group to indicate how it will achieve its own targets and regulate its own conduct. Monitoring and reporting will show the efforts being made ... and the results being achieved (Ministry of the Environment, 1994, p.42).

themselves and other interested groups in society. Once in place, the market creates both new opportunities and risks which, in turn, mobilise new and old actors. For example, legislation defining the legal liability of firms for environmental pollution affects the market for liability insurance. This then leads insurance companies to evaluate a particular company's risk and thus the premium it must pay, in terms of the in-house capacity of the firm to manage its environmental affairs effectively. Likewise, the loan and investment policies of financial institutions, including banks and financial markets, can be geared to the perceived 'greenness' of the firm in question. And of course, government programmes regarding product information and labelling reinforce the position of consumers 'demanding' environmentally friendly products. In this way, private market actors perform important functions within the overall system of public regulation.

These, then, are some of the ways in which government policy creates the foundation on which this particular social market economy is based and also generates the incentives (both positive and negative) which ensure that economic actors will remain sensitive to the market forces so created. This combination of market incentives and regulatory constraints provides the material basis for a system of self-regulation that is not just a question of good will and admirable intentions. Co-operative self-regulation requires the discipline of both a publicly structured market and the ultimate threat of the regulatory stick to keep things honest.

Ecological modernisation and the reordering of regulatory space

The emerging strategy of environmental regulation in Western Europe and the EU is part of the process of redefining the relations between society and its governmental authorities and the working out of a new division of labour and pattern of collaboration

between them. Students of alternative regulatory schemes for promoting new environmental protection strategies stress that efforts to prevent pollution will need to become a joint responsibility – in an important sense, a co-produced result. The character of the regulatory relationship between business and government will need to shift from confrontation to collaboration. At the heart of their vision is the belief that socially responsible self-interest can be mobilised in support of long-term adjustments towards pollution prevention. Supporting this faith is the already visible growing awareness on the part of some large corporations that continued corporate existence depends on the environmental performance of firms and enterprises and the continued support of public and government.

A serious commitment to the policy strategy of sustainable development with its promise of a mutually supportive integration of economic development and environmental quality makes necessary a new 'regulatory framework' for market activity. In an important sense it is not a question of regulation or no regulation but rather one of finding the appropriate kinds of governmental interventions, intended to shape and steer economic activity in socially desirable (as defined through the political process) ways. This clearly means that traditional forms of direct intervention will be replaced or supplemented by various modes of more indirect guidance. In other words, it means that 'hard' instruments of direct regulation will give way to 'soft' intervention modes of indirect and self-regulation. In any case, it is important to keep in mind the need for various governmental initiatives – jointly conceived with target groups – to stimulate and encourage, but also to 'keep socially honest' the market-orientated decision making of economic actors.

A commitment to a strategy of ecological modernisation as a central element of environmental policy involves a reordering of regulatory space in a search for a balance between market forces and government regulation of a new type. By creating the kind of regulated market described above, the objectives of sustainable development are to be achieved by introducing considerations of environmental quality and care as parameters for the decisions of economic actors. There are at least three levels of institutional adaptation to market economies which should be distinguished in this connection:

- 1 There is the need to create the conditions for a new macrosystem, based on relatively free play of market forces; this is the main focus for deregulation and privatisation measures.
- 2 At an intermediate or meso-level, an associational infrastructure must be created, either by adapting existing social and economic organisations or by creating new ones to perform various functions required by a capitalist economy. This will include redefining the working relationship between government and the different economic actors.
- 3 The development of such a market system will require adjustments on the part of managers of industrial firms since managing a firm in a market situation is different from performing the same tasks in a planned economy in which the disciplining effects of market exchanges are absent. The same holds true for government officials whose job it has been to 'regulate' this economic activity in one way or another.

The nature of the regulatory role of the state, the instruments employed and the relationships between regulatory agencies and their target groups will need to be

adapted to the requirements of the institutional context of the particular market economy. These kinds of adjustments in the role conceptions and management skills of both public and private actors are important preconditions for the transition to an effectively working market order.

8.5 Conclusion: co-governance and the problem-solving capacity of the nation state

At the beginning of the chapter we noted that environmental interdependence restricts the ability of national governments to attain their (quality) objectives unilaterally. In light of this situation, there are those who conclude that such interdependence constitutes a threat to state sovereignty in the sense that the state is no longer able to perform its basic function of meeting the demands of its citizens. Moreover, satisfactory solutions to problems of ecological interdependence will require some kind of institutional arrangement that supplants or significantly limits the nation state, so as to bring about the necessary co-operation among these separate actors.

But, formal sovereignty (defined as a situation where the state is subject to no other state and has full and exclusive power within its own jurisdiction) does not appear to have been seriously threatened by interdependence and international agreements. Indeed, as we have seen, all forms of international co-operation are based on the fundamental fact of international life: sovereign nation states continue to be the basic actors in international relations. On the other hand, the governments of these 'formally sovereign states' increasingly find it in their interest (as a result of domestic political pressures) to undertake collective action to deal with problems that are perceived as presenting a shared threat.

If such collaboration is to be achieved, the individual states will have to accept that their 'operational sovereignty' (their legal freedom to act under international law) will be 'eroded' or constrained to one degree or another, as a precondition for finding mutually beneficial solutions to problems of joint concern. International agreements do, indeed, restrict a country's freedom to do as it pleases. In this sense then, ecological interdependence does change the relationship between operational sovereignty and effective action: under conditions of close interdependence, attempts to maintain unlimited sovereignty may make it impossible for anyone to take any effective action.

Taking all this into consideration, the modern state at the end of the 20th century may very well have lost a good deal of its traditionally imputed ability to act 'alone' – as a 'sovereign authority' – in ordering its relations with other members of the international community and in dealing with the problems of its citizens. At the same time, it has gained through various arrangements for collaborative or joint decision making a capacity to tackle problems requiring the concerted inputs or action capabilities of a number of separate actors. Consequently, what we are seeing is not a 'leaking away' of state sovereignty toward international or supranational bodies but (keeping with the hydraulic metaphor) a 'pooling' of sovereignties to create institutional arrangements for joint decision making and problem solving on the basis of the continued independence and formal autonomy of the constituent units. It should be noted that the logic of joint action holds for all players, not just public authorities: all

lose (relatively speaking) their capacity for unilateral action and steering while gaining, in return, partners who commit themselves with their own resources and potential for action to engage in joint problem-solving activity. It has been the argument of this chapter that these 'negotiated orders' for joint action are 'repeated' at each of the different levels of collective decision making and social action – ranging from international treaty making down to relations between individual firms and sub-national governmental authorities. Together they constitute a set of more or less tightly interlinked networks of actors through which the various 'functions of international governance' are performed.

The number of international environmental agreements has grown rapidly in recent years. Although they vary greatly in their individual features, they all establish some form of international regime through which the processes of international governance take place. Increasingly, the attention of those concerned with international environmental management is shifting from issues relating to regime formation ('Is international co-operation possible?') to questions concerning the results of such arrangements ('What are the impacts of such regimes?').

With this shift in interest toward the consequences of international environmental regimes, questions of implementation come to the fore. What happens within the signatory states will determine how successful these efforts to institutionalise international co-operation will be. As we have seen, implementation of international environmental agreements is a complex process. It involves multiple channels of interaction between agents of public authorities and those subject to the regime rules and the regulations promulgated to enforce them. In the last analysis, regime effectiveness will depend on the legislation and regulations national governments pass to put them into operation and on the actions taken to ensure compliance. In this sense, 'running' regimes, once the treaty is concluded and adjusting them to changes within national and international society is as difficult and daunting a task as reaching the initial agreement itself.