

1. Introduction

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With the pressures of population, economic growth, and the movement of people and commodities reaching a scale which threatens the regenerative and assimilative capacities of the biosphere, environmental conservation has come to be recognized as a pre-eminent global challenge. Concerns for the environment, at the level of research and of policy-making, have been significant, but, it seemed to us, have been mainly cast in a framework that conceives of environmental problems as problems of degradation through pollution and over-exploitation. Such an approach reflects a view of an environment made of unconnected or disjointed components – urban spaces, alpine ecosystems, blue whales, or the Amazonian forest as isolated fragments.

This conventional view identifies as ‘environment’ what are in effect only a few of its attributes, typically the ones perceived as most directly related to the immediate well-being of western, urbanized populations – air and water quality in cities, the availability of parks and other recreational sites, the conservation of a few charismatic or symbolic species. These attributes and others like them are important, but are essentially derivative of more general properties of the natural ecosystems on which economies and societies rely. Indeed, we now know that the biosphere consists of highly interrelated and complex components, where even elements and species performing similar ecological functions are generally important in maintaining the capacity of the overall system to operate, to absorb shocks and stress, and to support life.

The complexity of ecological systems implies that decisions concerning a specific natural resource generally affect more than one ecological component, although the impact is often lagged and difficult to predict. Environmental policy-making, in turn, does not emanate from a single unitary authority, but is rather the outcome of a multi-layered structure mainly designed by history to deal with the large number of different and sometimes conflicting demands that citizens place on their governments. The complexity of nature therefore poses a difficult problem of assignment of

powers over the environment: at what level of government – global, national, regional, local – should the responsibility over the various environmental issues be placed? Are there governments at different jurisdictional levels that have a comparative advantage in dealing with long-term, spatially intertwined, uncertain or irreversible environmental issues? Through what mechanisms can coordination be achieved?

The interdependence between environmental media and systems would seem to dictate the necessity of a highly centralized regulatory structure for the protection of those different components. However, if costs of coordination between governments located at different jurisdictional levels are not excessive, decentralization could bring about benefits such as a more direct access to local information, recognition of heterogeneous local preferences and socio-economic conditions, as well as promotion of initiative and creativity on the part of the citizenry and sub-national governments. Moreover, a multi-layered governmental system has the power to unleash the forces of competition among its units, forces which allow these to adjust automatically, to a degree at least, to exogenous changes. This capacity to adjust is especially important for structures generating environmental policy processes that need to be adaptive and flexible to be able to respond to a continuing flow of new evidence and scientific information.

Several questions posed by the assignment of powers over the environment have been considered in the environmental federalism literature (well summarized in Oates and Portney, 2001), but largely ignored in conventional environmental economics. A number of other questions, essential to an understanding of the way policies are designed and implemented as well as to a discussion of how the policy process can be improved, have not yet received much attention. For example, the existing research on the division of powers over environmental issues in decentralized governmental structures is set in a framework that takes for granted that the relevant structure is federal.¹ What applies to federal states may not apply in the same way in decentralized unitary states: the theory of federalism and the theory of decentralization do not, indeed, fully coincide.² Furthermore, there now exists a governmental structure of growing importance on the international stage, namely the EU, which is neither a federal nor a unitary state. In that case also, the existing models dealing with environmental policy-making in federal countries cannot be mechanically applied.

In conventional economic, political science, and legal-constitutional approaches to the division of powers between jurisdictional tiers, the focus is often on the norms or criteria that should govern the assignment of powers: the degree of responsiveness to citizens' preferences of governments inhabiting different jurisdictional tiers, the capacity of differentially located governments to minimize the risks associated with innovating, the

size and nature of interjurisdictional spillovers originating in consumption and production activities, and others. Such criteria point to the conclusion that assignments, once determined, tend to be permanent: the degree of responsiveness will always be higher the lower in the hierarchy a government is located, the size of spillovers will remain the same unless there are radical changes in technology and/or in the nature of the goods and services supplied by public bodies, and so on. For the same reasons, assignments would be essentially similar in countries that are more or less similarly decentralized.

In less conventional work, the attention is placed on the organizational costs associated with different assignments. Some of these costs, especially coordination costs, are a function of the size of spillovers, others are a function of the difficulty of eliciting information regarding the preferences of citizens.³ Until recently that approach was based on the assumption that those who have the responsibility for assigning powers would act to make these costs as small as possible. Lately, models have been developed in which cost minimization is the result of vertical competition between levels of government. This literature tends to emphasize that assignments do change over time under the impact of changes in the relevant exogenous factors, in particular those affecting coordination costs, and that they will vary across countries.

Actual assignments of environmental powers do vary significantly across countries. One objective of our research has been to understand the nature of the variation, that is, how different countries actually define and address environmental issues with specific attention to intergovernmental relations: what institutions have been created, what assignment of powers have been chosen, what has been done when these assignments needed to be changed, what solutions have been tried and with what success. We also wanted to investigate whether a systemic view of the environment had percolated to the level of policy-making. The adopted perspective has been as broad as possible, with the inclusion of 16 countries in six continents and of the European Union, analysed by scholars from different disciplines – economics, political science, environmental science and law. The country studies have produced interesting material in respect of a number of issues that are not part of the conventional treatment of the environment and of decentralization, at least in the economics literature.

The chapters are assembled in two parts. Part I contains the studies on a set of federal countries plus that on the European Union. Part II brings together the studies on non-federal countries. In both instances, the selection reflects three basic criteria, the result being a compromise between our ambitions and what we were able to secure: identifying a sample of countries (i) covering all continents; (ii) reflecting socio-economic, political

and environmental diversity; and (iii) characterized by some degree of decentralization.

The ultimate goal of our research programme is to explore how a systemic view of the environment – one that recognizes the need for policies aimed not only at controlling pollution and conserving a few charismatic species but at protecting the integrity of ecological systems and functions at local, regional, national and global levels – would affect the assignment of powers and the design of environmental institutions. The structure of the country studies reflects that goal. The areas of environmental policy studied include pollution control, ecosystem protection and natural resource management, highlighting innovative approaches, notable failures and major changes that make it possible to compare the effectiveness of different institutional arrangements or policy tools. The analyses concern the definition of environmental areas of responsibility, the institutional set-up at all governance levels (supranational, national, state/regional, local/municipal), the policy tools and the enforcement procedures – on paper and in practice.

Other matters which receive attention are the mechanisms introduced to deal with incomplete information, the use of scientific expertise in the policy process, the existence of integration between environmental and other economic (transport, energy, regional development, industrial, trade) policies, the use of complementary powers (for example a ‘clean water’ policy or regulation implemented through the fisheries power) or general powers (for example environmental policies put in place through broad powers such as criminal law powers, trade and commerce powers, and so on), the existence of powers that are not exercised (environmental legislation on the books that is not enforced). The above themes run across the various studies, although each one looks at environmental governance from an angle that reflects the specificity of national situations and the background of authors.

In Chapter 2, Jeffrey Petchey provides an analysis of how Australia is responding to the threats to native biodiversity and to the management of a limited water supply. To that effect, the chapter discusses the assignment of environmental powers with special emphasis on the centralist interpretation of the Constitution by the High Court of Australia. Petchey also underlines that in addressing environmental issues – in particular that of water supply – the approach adopted has been one of cooperation. The policies developed under the ‘umbrella of cooperation’ are monitored by the National Competition Council, a national body with the power (effectively used) to levy financial penalties for non-compliance. The chapter underlines the increasing role played by indigenous people in preserving biodiversity.

Conservation of its huge endowment of natural resources is not only a domestic issue for Brazil (Chapter 3). The international community is

exerting increasing pressure on this country, in particular for the preservation of the Amazonian forests. Partly in response to this pressure, the federal parliament has introduced in the recent past progressive legislation that is based on a broad sustainability perspective and on a participative approach. The responsibility for its implementation falls mainly on state and local governments. A fairly complex network of consultative and executive bodies has been set up at every level of government to devise specific policies and to monitor their implementation. Results, however, are still unsatisfactory. According to Clóvis Cavalcanti, this is because the assignment of responsibilities is quite intricate, and society's commitment to environmental sustainability is partial. Extreme poverty still affects large segments of the population and many areas of the country. These factors weaken the capacity of the public sector as a whole to resist the pressures of powerful private lobbies that oppose more stringent environmental policies.

In Chapter 4, Marcia Valiante argues that environmental governance in Canada is the result of a complex and dynamic structure. Constitutional authority is divided between the federal and provincial governments, but international institutions, municipalities, Aboriginal peoples, industry and non-governmental groups play important roles (in some cases increasingly crucial ones) in shaping the direction of Canada's policies. Overlapping powers between orders of government and the consequent uncertainty result in delays and inaction. Valiante highlights that while coordination is necessary, it entails significant costs which slow down the policy-making process. The recent trend has been toward a greater decentralization. Implementation of environmental policies occurs primarily through traditional regulatory instruments at the provincial level. The command-and-control approach is gradually being supplemented by information-based schemes, economic instruments and voluntary initiatives. Valiante claims that whereas this system has achieved important reductions in industrial pollution, frustratingly little progress has been made in addressing more complex environmental challenges, such as meeting Kyoto protocol targets and moving toward sustainable development. Over the last decades, governmental activity on the environment has cyclically intensified and declined in response to changing levels of public concern.

In Ethiopia (Chapter 5), which has a federal constitution, the system of government is articulated into nine regional governments each having legislative, executive and judicial powers. The states are structured into a number of levels of local government. The implementation of constitutional mandates referring to sub-national governments has been slow, and only in 2003 were elections of local governments held. The Conservation Strategy of Ethiopia sets the framework for environmental policy. It intends to bring about sustainable management of natural resources in the

context of development. The launch of the Conservation Strategy has been prompted, according to Gedion Asfaw, Sebsebe Demissew and Kifle Lemma Woldeamayyat, by the recognition that most of the horrors of the 1984/85 famine were attributable to environmental mismanagement, which caused deterioration of natural resources and of the urban environment, and accelerated soil erosion and biodiversity loss. Ethiopia has also set up a system of environmental protection agencies operating at the different layers of government. The authors stress that while Ethiopia has introduced good policies and strategies both at the federal and at regional levels, the implementation of policies leaves a lot to be desired. Different priorities have prevailed and the pursuit of environmental goals has been displaced by events such as external wars.

The European Union is the most macroscopic example in history of transfers of competencies – *inter alia*, in environmental matters – to a supra-national entity. Given its power to impose direct obligations to individuals and firms, it shares significant features with federal systems. Anthony Zito (Chapter 6) provides an analytical overview of the European Union's environmental policy process, addressing a number of governance components: institutional structure and policy style, the content of the European Community legislation, and the instruments used to implement legislation.

Although the EU, over the last three decades, has developed an extensive array of legislation across a number of environmental areas, implementation and other governance problems present significant challenges for the future. The European Community decision-making processes have to accommodate a number of tensions inherent in the complex array of positions and institutions present. The Commission shares executive functions, that is policy leadership, with the Council of Ministers, and implementation with the member states. This, added to the sharing of the traditional legislative functions of ratification and accountability between the European Parliament and the Council of Ministers, creates a complex political system, which makes forming decisional consensus difficult. The EU leaders have agreed on a draft of a New Constitutional Treaty that changes some institutional elements in the direction of amalgamating the three pillars, but it is not clear yet whether all the member states will ratify the Treaty and, if so, how this will reflect on environmental governance. The dissimilarity of views across member states is obviously a powerful hindering factor in the creation of new common institutions; an important example is the 1993 outcome of the argument over the European Environment Agency's functions and location, which produced an organization charged mainly with systematizing and providing environmental information – a far more limited role than the one the original proponents hoped for, and the one, for example, of the United States' EPA.

Germany has been widely considered, during the 1970s and 1980s, an international leader in environmental policy. Its predominant command-and-control approach based on the 'best available technology' has succeeded in achieving significant improvements in environmental quality, particularly with respect to emissions from major point sources. The country continues to be a leader in international environmental cooperation and an exporter of environmental technology. Stefanie Engel and Melanie Zimmermann, in Chapter 7, analyse the factors driving these successes – the visibility of several environmental problems, a high degree of public and consumer environmental awareness, the organized nature of environmental interests and their direct voice in politics thanks to the possibility of small parties (like the Green Party) entering into parliament at all political levels. Germany's leading role in the EU, particularly in pushing for harmonization measures, can also be explained by the country's export-dependant economy and its high ecological vulnerability due to its geographic position. Recently, however, the country is falling behind in the implementation of EU measures. The traditional command-and-control approach is increasingly showing its limits, in terms both of costs and of effectiveness, and the formal objective of sustainable development has not yet found its way into a real national strategy. A cross-sectoral and cross-media approach is made difficult by the prevailing asymmetry in environmental policy competences between the federal government and the states, and by the distribution of environmental policy responsibilities between several federal ministries. Vertical and horizontal policy coordination is hampered by conflicts among and between federal and Länder authorities within the decentralized system, and the bicameral system tends to favour more incremental policy evolution over major policy change.

In Chapter 8, Subrata Mandal and Govinda Rao focus on the assignment of powers and on implementation in regard to water, air and forests in India. The analysis is not restricted to the division of powers among different levels of government, but addresses also that between the executive and the judiciary. On this last issue, the authors argue that judicial intervention in environmental matters can be construed as part of the checks and balances characteristic of federal arrangements if it does not become a substitute for a failure of the executive to act. Mandal and Rao insist that even if in the short-term decisions of the Courts are beneficial, their effects in the longer run are not known and are just as likely to be negative as positive. Indeed, the authors' judgement is that the last outcome is the most likely. The authors then make the point that despite a reasonably clear division of powers the implementation of environmental policies has not been very satisfactory. Two factors are at play: one, the incentives facing policy-makers and bureaucrats cause them to be susceptible to the

influence of polluters; the other, the lack of adequate resources and of modern technology to measure pollution levels.

Ineffectiveness of environmental governance also characterizes the Russian federation (Chapter 9). The legacy inherited from the Soviet Union is difficult to overcome. Environmental degradation characterizes large areas of the country, and the transition to a rule-based system is slow and painful. In recent years the Russian parliament has passed a number of sector laws aimed at bringing the legal framework on environmental governance up to the standards prevailing in industrial democracies. The assignment of tasks between layers of government is broadly in line with that prevailing in developed countries, where standards and broad policies are determined at the central level, while regions are responsible for detailed regulations and implementation of legislation. However, according to the authors, Pavel Kasyanov and Aliona Stovpivskaya, many weaknesses exist. Discrepancies between federal and regional legislation and regulations are frequent. The federal government has resisted devolution of tasks to the regions, but is not capable of controlling them. Lack of clarity permeates the assignment of responsibilities for the implementation of legislation, and monitoring is ineffectual. These weaknesses are exploited by powerful private economic groups active in sectors, such as the oil sector, that are crucial for environmental governance. The authors also decry the reliance on command-and-control instruments at the expense of economic ones.

The core element in the United States' environmental and natural resource policy is the role of the federal government in setting national pollution standards that are to be implemented at the state level. The on-going challenge is to find the appropriate way to share authority in the design and implementation of policy across levels of government – to find an effective balance between centralized policies that address national health concerns versus decentralized policies that address local physical and social conditions. In Chapter 10, Jason Shogren first presents an overview of the political economy of environmental policy in the United States over the last three decades, discussing the federalist institutional framework used to create and implement environmental policy and the major federal environmental regulations. He then considers in detail three policy tools used in the US – citizen suits, collaboration, and market-based instruments. Finally, he explores several on-going debates over environmental policy in the US, including clean air, climate change, Superfund, endangered species protection, and children's health. It appears that many environmental policy innovations come from the bottom-up regulatory approaches of the states, and officials of state governments constantly demand greater authority in environmental policy-making, especially for those regulations initially designed to be implemented at the federal level which in several cases (for

example, endangered species, Superfund) show a relatively poor record of performance.

The next eight chapters in Part II of the volume deal with non-federal states. Chile is not only a unitary state, it is also still a very centralized one. As in other South American countries, the burden of the recent dictatorial experience on governmental institutions is still clearly apparent. With the return to democratic government in 1990, an Environmental Framework Law was introduced. The law assigns most responsibilities concerning the environment to the central government. A specialized body has been set up to prepare legislation, to promote implementation and to coordinate actions of the various stakeholders. Municipalities, the core of decentralized government, have minor responsibilities in regard to environmental issues. While the framework law assigns most of the monitoring tasks to municipalities, deconcentrated bodies created by sector ministries have supplanted the former. Fostering of popular participation has been practically abandoned, despite initial claims. Although democratic governments have shown some activism on the environment, an increasing pessimism is emerging in the society about the capacity and the willingness of government to solve environmental issues. In Chapter 11, Tommaso Chiamparino, Laura Piazza and Irene Venturello note that the legislation is new and the implementation instruments are recent, making their evaluation difficult. A notable aspect of the chapter is the analysis of the impact of international trade agreements – particularly, the agreement between Chile and Canada – on the implementation of domestic norms and the activation of policies.

China is undergoing a process of government decentralization and of reforms in environmental governance. Changhua Wu and Hua Wang, in Chapter 12, argue that on the one hand environmental quality, despite improvements in some parts of the country, has been continuously deteriorating with the progress of decentralization. On the other hand those reforms have indeed brought fundamental changes in environmental policy, for example by strengthening local administrations responsible for environmental protection. The international dimension and the increasing degree of openness of the Chinese economy have an impact on environmental policy not only through the ratification of environmental multilateral agreements but also through specific environmental legislation or regulation developed in relation to import or export activities. In the face of increasing tension between the development and the environmental agendas, the reforms carried out so far do not seem to provide adequate cross-sectoral and inter-jurisdictional coordination mechanisms. Wu and Wang argue that increasing the decentralization could help address this issue, as well as the problem of the conflicting mandates of some specialized agencies. They also call for enhanced public participation.

In Chapter 13, Mikael Skou Andersen remarks that even if Denmark is a unitary state, the economic independence of municipalities is revealed in their power to levy income and property taxes and in their responsibility, in environmental matters, for sewage treatment and waste disposal. If there is a perception of a persistent deficit in municipal environmental management, it is not only due to the globalization of environmental issues, Andersen argues, but is also a consequence of the inability of municipalities to regulate polluters. Despite the introduction in the 1990s of a policy giving the centre the power to levy environmental taxes and to grant subsidies, the municipalities continue to play a central role in environmental management. The author imputes this fact to a general consensus in Denmark regarding decentralization. The preponderant 'municipalization of environmental administration' exacerbates three problems: that of scale, related to the inadequate size of some local administrations relative to technical requirements; that of subsidization, which leads to the support of local enterprises rather than to a focus on compliance with regulation; and that of capacity, which refers to a lack of expertise to deal with technically complex environmental issues.

In Chapter 14, Albert Breton and Pierre Salmon emphasize that in France, the present balance between centralization and decentralization is the result of permanent structural features of the French governmental system on the one hand, and of recent developments in that system and in environmental concerns and priorities on the other. The authors make the point that the capacity of the central government to adapt to spatial heterogeneity applies to all policy areas, but is particularly pertinent in the case of environmental policies. Breton and Salmon go on to argue that the decentralization instituted in the early 1980s enhanced the responsibilities, authority and ambitions of sub-central governments, so that many tasks can now be undertaken by these governments and not only by the central government.

Breton and Salmon then turn their attention to the demand for environmental policy. They note that if populations are still concerned with the effects of pollution and industrial hazards on their health and safety, scientific information has persuaded them that some negative consequences of human activities are now more global than local. In other words, in regard to some important substances, populations know that what counts is their aggregate emissions, possibly at the world level, but certainly at the national level. The important role played by the directives from the European Union and by international commitments in shaping demand is underlined. A last influence on demand, which the authors mention, is the growing awareness by populations of the importance of the preservation of nature, landscape and biodiversity. The authors then argue that changes in supply and demand have sometimes circumscribed the role of the central government and enhanced that of sub-national governments.

Felix Ankomah Asante (Chapter 15) focuses on the capacity and constraints of local governments in implementing environmental policies in Ghana. The structural changes needed to enable the local level of government to deal with increasingly severe environmental problems – deforestation, biodiversity loss, soil erosion and land degradation due to overgrazing and inappropriate agricultural practices, pollution and waste disposal – require involving a wider range of organizations and decentralizing authority and responsibility. The efforts at decentralization that started to materialize around the mid-1970s succeeded in strengthening the regions, but largely failed to produce an effective transfer of power to lower tiers of government. The functions which were transferred to the District Councils were not accompanied by a simultaneous transfer of competences and means required for effective decentralization. There have been attempts to involve community groups and non-governmental organizations in the environmental policy process, but as yet the impact of these efforts remains limited.

Environmental policy in Italy has had a late start. However, the last 15 years have seen a dramatic improvement of the legal framework, mainly prompted by the need to comply with European Union requirements. In fact, the EU acts as a stimulus compensating for the relative weakness of the priority given to environmental issues in the agendas of the various political parties and of the pressure exerted by public opinion. Italy is a regional state undergoing a process of quasi federalization. While many competences over the environment have been shifted to regional and local governments, the central government retains a number of regulatory responsibilities as well as coordination and control powers. In spite of these reforms, however, the assignment of powers and the legislative framework remain unclear and fragmented. The establishment of a system of environmental agencies has caused a noticeable progress in monitoring and reporting, but implementation and enforcement are still weak. Moreover, the effectiveness of environmental governance suffers from persistent regional disparities and limited coordination among administrations. Various forms of contractual agreements between administrations and among public agencies and private entities are emerging as a response to the latter problem. The environmental policy toolbox is also evolving, with voluntary approaches playing an increasing role. Ivana Capozza and Giovanna Garrone (Chapter 16) argue that behind the relative success of voluntary and participatory instruments there is often a more or less direct form of public subsidy. Indeed, the command-and-control approach still prevails. A few economic taxes and charges are used, but they are usually not intended as environmental measures and are not designed in a way as to induce behavioural changes.

The Netherlands (Chapter 17) have a reputation of being one of the more progressive states in Europe when it comes to environmental policy. Traditionally, this country has had to face huge environmental challenges. It is a small, very densely populated country, with large industries. It is also, despite its tiny size, the third largest exporter of agricultural products in the world. Consistent with these peculiarities, the chapter focuses on industry-related pollution control, agricultural pollution control, and water management.

The 1990s witnessed increased governmental activism in environmental governance. Three main trends can be observed. The first is a trend to move from top-down regulation, where the regulated parties are merely passive subjects, to a more inclusive, cooperative 'governance' system, where stakeholders take part in designing the regulation. Voluntary agreements have been a main ingredient of this shift. The second trend consists in the move from compartmentalization and differentiation to integration (multi-sector). The third one is towards multi-level governance, notably the growing role of the EU, combined with a certain shift of responsibilities from the national towards the regional and local levels (multi-level). In some areas, such as ecosystem protection, water, and rural and spatial planning, either decentralization or Europeanization appears to have resulted in a certain degree of erosion of state-level powers.

An interesting feature of the chapter concerns the impact of EU policies on the effectiveness of domestic policy. Duncan Liefferink and Mark Wiering maintain that in some cases, such as the Water Framework Directive, the EU has clearly stimulated and supported domestic developments. Other EU policies, for instance the Packaging, Habitats and Nitrates Directives, have somewhat negatively interfered with Dutch policies and to some extent even frustrated novel, integrative approaches.

The authors also attempt to evaluate the impact of observed policy changes on the quality of the environment. It appears that the emissions of several major pollutants have decreased in absolute terms over the past few decades. Thus, a decoupling of economic growth and environmental pressure seems to have taken place. According to the authors, this is largely due to the increasing involvement of target groups in environmental policy-making, a dominant feature of Dutch political culture which has also led to successful cases of voluntary approaches and public-private agreements.

The UK is a highly centralized political system, in which the central government has substantial decisive power. Territorial decentralization (with the exception of the recent devolution in Scotland and Wales) is very limited, with no democratically elected regional level of government, and a system of local governments under tight central control. In the analysis of Stephen Smith (Chapter 18), the increasing significance of the international

level of government (international agreements and the EU) in most areas of policy appears to be the only marked general trend in terms of changes in the assignment of environmental powers. There has probably been, however, some general tendency for further centralization of land use and planning decisions, especially through appeals against local authority decisions.

Privatization of the water industry has led to the creation of a separate water regulator, a form of functional decentralization to a specialized regulatory agency. Indeed, a distinctive feature of the UK over the past 20 years has been the move towards specialized agencies created by the central government, and away from direct implementation of policy by central government departments themselves. This has been accompanied, in recent years, by a significant shift in the style of UK environmental policy, away from case-by-case negotiation of pollution consents between the regulator and individual enterprises, towards a more rule-based regulatory approach. Most of the initiatives towards 'modernization' of regulatory approaches and the adoption of a limited number of incentive-based regulatory mechanisms have come from the central government.

The last chapter provides a synthesis on the current trends in the development of governance structures for environmental protection, which draws heavily on the evidence from the 17 countries included in our sample. It focuses on aspects identified as fundamental in describing how environmental governance is unfolding, globally, in the twenty-first century: the widespread shift from command-and-control policy tools towards both voluntary approaches and market-based instruments, the role played by contractual agreements between administrations as instruments in ordering intergovernmental relations in environmental policy, the worldwide trend towards privatizations in the provision of environmental services such as water distribution, sewage and waste disposal, the diffusion of Environmental Protection Agencies, the role played by the judiciary in a number of countries as a major environmental player, the allocation of enactment and enforcement powers between different levels of government, the role of indigenous people and local communities in environmental management. It also tries to ascertain the ground actually gained by a sustainability approach aiming at a growing integration of environmental policy-making with other policy sectors.

NOTES

1. See, for example, Butler and Macey (1996), Revesz (1992, 1996), Ulph (1998) and Scott (2000).

2. That literature is reviewed and referenced in Breton (1996), Breton et al. (1998), Brosio (1994), Litvack et al. (1998) and Oates (1999).
3. See Breton and Scott (1978) and Inman and Rubinfeld (1997).

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