1 Introduction: theoretical framework and research design

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1.1 Introduction

Are environmental policies in European countries growing more and more similar? In this era of globalisation it seems likely, but if so, at what level do national environmental policies converge? Are countries generally reaching out to the most stringent and most effective models available, or does increased international competition rather force them to adopt less demanding levels of regulation?

And perhaps even more important: how do processes of environmental policy convergence come about? Some argue that cross-national policy convergence is mainly fuelled by the international trade interests of individual states. Others emphasise formal policy coordination by, for instance, European Union law or international environmental treaties as the predominant convergence mechanism. Yet others argue that the impact of legal harmonisation is overestimated and that much of the mutual adjustment of domestic policies, institutions, and instruments can be explained by increasing information flows and cross-national policy learning. Finally, one always has to keep in mind the possibility that there are no international mechanisms at work at all. In this case policy convergence would simply be a matter of similar, but independent responses to similar problems occurring in different countries.

As will be set out in considerable detail in Section 1.2, existing scholarly literature provides partial, tentative, sometimes even fairly powerful clues to this major puzzle. It has been shown that convergence does take place at a surprisingly high pace and in fact also at surprisingly high levels of regulation. Generally speaking, environmental policies do not systematically fall victim to international economic competition as 'race to the bottom' theories would predict. Instead, there is increasing evidence that legal harmonisation as well as various types of transnational communication lead countries to mutually adjust their policy goals, policy instruments and even their levels of ambition. Moreover, this convergence is not restricted to groups of countries with similar political systems or

similar policy styles, or which stand at similar stages of economic development. It can be observed on a European and in many instances even global scale. Less is known, however, about the precise ways in which the prevailing mechanisms work and interact in practice.

This book seeks to find answers to these questions by way of a highly systematic set of cases studies, covering seven environmental policy issues in four countries: France, Hungary, Mexico and the Netherlands. This introductory chapter sets out the analytical framework applied in the case studies. It specifies the research questions and the central theoretical concepts, explains the selection of the four countries and the seven cases, and develops expectations as to which mechanisms of convergence may apply under which circumstances. In Section 1.2 we fix the point of departure for the present study by briefly reviewing the scholarly state-of-the-art in the field of environmental policy convergence. Section 1.3 then defines and discusses the basic terminology used in the book, notably the concept of policy convergence and the main mechanisms behind it. In Section 1.4 we describe how our empirical case studies build upon the findings of a large-scale quantitative study of environmental policy convergence carried out earlier.[1] The careful and systematic selection of both policy issues and countries makes it possible to investigate in an unusually thorough and comprehensive fashion how the various mechanisms of policy convergence work in practice, how they reinforce or hinder each other, and how effective they are in making domestic policies more similar over time. Finally in this chapter, Section 1.5 sketches the outline of the rest of the book.

1.2 Environmental policy convergence: the state of the art and further

Over the last decades, the study of processes of cross-national policy convergence has become a major concern for political scientists. In a globalising world, increased economic, political and cultural interdependence is assumed to make national policies grow more alike over time (Drezner 2001). This convergence of policies and programmes has been observed in virtually all areas of public policy making (for a comprehensive overview see Heichel, Pape and Sommerer 2005; see also the contributions in Holzinger, Jörgens and Knill 2007). In this section we

[1] Both the quantitative study and this book form part of the research project 'Environmental governance in Europe: the impact of international institutions and trade on policy convergence' (ENVIPOLCON). For further details, see Section 1.4 and Chapter 2.

will give an overview of the literature on policy convergence in the field of environmental policy.

Since the late 1960s virtually all countries in the world have created government institutions for the protection of the environment such as environment ministries, national environmental agencies or environmental advisory councils (Jörgens 1996; Meyer et al. 1997). Basic legislation in the areas of air pollution control, nature and water protection as well as waste management has equally been adopted in a large number of countries (Busch and Jörgens 2005a). At the instrumental level, the more recent shift in the prevailing policy pattern from a sectorally fragmented and largely legally based regulatory approach to an integrated environmental policy characterised by the inclusion of softer and/or more flexible instruments such as negotiated agreements, eco-labels, emissions trading schemes, or ecological tax reforms is also proceeding on a global scale (De Clercq 2002; Jörgens 2003; De Bruijn and Norberg-Bohm 2005; Daley 2007). Even concrete environmental protection standards such as emission standards have strongly converged over time (Holzinger, Knill and Arts 2008). Overall, a global convergence of governance patterns in environmental policy has been observed (Jänicke and Weidner 1997; Meyer et al. 1997; Weidner and Jänicke 2002; Busch and Jörgens 2005b; Holzinger, Knill and Sommerer 2008; Knill, Holzinger and Arts 2008).

Both comparative policy analysis and the study of international relations have contributed significantly to this growing literature on environmental policy convergence. Although the two subdisciplines differ substantially in their theoretical expectations as well as in their methodological approach, their empirical findings have become increasingly similar over time, supporting the identification of a strong and stable convergence trend over the past four decades in the field of environmental policy.

1.2.1 Comparative policy analysis

Scholars in the field of comparative policy analysis originally focused on the national determinants of policy choice and policy change. Consequently, their theoretical point of departure was a general assumption of cross-national diversity of environmental policies resulting from different national institutional frameworks, actor constellations, regulatory styles and problem pressures (Lundqvist 1974; Kitschelt 1983; Weale 1992; van Waarden 1995). However, in their empirical analyses, they quickly detected that in spite of widely differing national styles of regulation, advanced industrial states had been surprisingly similar in deciding which risks required positive state action (agenda setting) and in their

successes or failures actually to reduce environmental pollution (policy impacts) (Badaracco 1985; Brickman, Jasanoff and Ilgen 1985; Vogel 1986). While these studies did not directly pose the question of convergence or divergence of national environmental policies, their common finding of 'different styles, similar content' (Knoepfel et al. 1987) was a first and important step in that direction. In a summary of the findings of this first set of comparative environmental policy analyses Knoepfel et al. (1987: 183) concluded that 'the hypothesis . . . concerning the long-term convergence of policy outputs in environmental regulation must be tested and questioned in a more comprehensive analysis'.

Building on these early findings, a second wave of studies began to compare systematically the development of domestic capacities for environmental policy making throughout the group of Western industrialised countries. These studies found not only that national environmental policies were determined only in part by domestic factors, but also that processes of imitation and learning among geographically, culturally or economically related countries had become important and independent sources of any country's capacity to address environmental problems (Jänicke 1996; Jörgens 1996). As a consequence, Western industrialised states responded in a surprisingly homogeneous way to the environmental challenge that had been placed on domestic and international policy agendas in the late 1960s and early 1970s. A systematic in-depth comparison by Jänicke and Weidner of case studies of thirty industrialised and developing countries confirmed these findings and extended them beyond the narrow group of industrialised countries. It revealed a global convergence of governance patterns in environmental policy that covered not only domestic institutions but also sectoral environmental laws, specific instruments, strategies, actor constellations and even the strengthening of societal capacities (Jänicke and Weidner 1997; Weidner and Jänicke 2002).

However, these findings did not go undisputed. In a study on the development of environmental policies in Western Europe, Hanf and Jansen (1998) confirmed the previous findings that countries tended to respond to environmental phenomena 'by legislation that was relatively similar in formal terms', but added that beneath the level of formal laws and institutions, domestic environmental policies remained 'quite different in terms of operational goals and instruments' (Jansen, Osland and Hanf 1998: 281). Like much of the Europeanisation literature, their study found domestic actor constellations and institutional structures to be important intervening factors which explain differences between national environmental policies and institutions (see also Andersen and Liefferink 1997; Liefferink and Andersen 1998; Börzel 2002; Liefferink

and Jordan 2005). While most Europeanisation studies agreed that the powerful economic as well as political homogenising pressures within the EU did not necessarily lead to uniform action at the level of member states, but often produced a quite heterogeneous patchwork of institutions, instruments and policy styles (see, for example, Héritier and Knill 2001), they disagreed on the concrete level of policy making where convergence and/or divergence could be expected as well as on the underlying causal mechanisms. For example, while Jansen, Osland and Hanf (1998) had expected diversity to be strongest with regard to operational goals and targets, Jordan and Liefferink found that it was exactly at this level of individual environmental standards and concrete instruments that convergence was most pronounced (Jordan and Liefferink 2004; Liefferink and Jordan 2005). Regarding the mechanisms of environmental policy change, Knill and Lenschow (2005a, 2005b), in a study of the effects of EU policies on the organisational structure and behavioural patterns of national administrations, found that 'soft' European steering modes based on competition or communication had led to greater administrative convergence than 'hard' steering modes based on legal obligation. Focusing on policies and instruments rather than administrative structures, Jordan and colleagues found more convergence in areas where the EU has the authority to adopt binding supranational regulations than in areas where it has little or no legislative competence (Jordan, Wurzel and Zito 2003; Jordan and Liefferink 2004).

In parallel to these studies on Europeanisation and policy convergence, a second strand of comparative studies began to investigate systematically processes of transfer, diffusion and convergence of environmental policies beyond the relatively small group of EU member states. Rather than relying on small to medium-sized samples of in-depth case studies – as had been the case with the earlier generations of European and international comparisons – these studies began to trace the global patterns of environmental policy change and convergence across large numbers of countries, sometimes even on a worldwide scale (Tews, Busch and Jörgens 2003; Jörgens 2004; Busch and Jörgens 2005a, 2007a; Tews and Jänicke 2005). Looking at a wide range of policy items which included environmental institutions, different types of environmental laws (from constitutional articles to issue-specific ordinances), environmental policy instruments (regulatory, informational, voluntary or market-based) and general principles and programmes, these studies provided strong evidence of a global convergence in environmental policy making. Furthermore, they showed that a wide range of causal mechanisms, including economic coercion, legal harmonisation, and voluntary imitation and learning, all contributed to this convergence and that the interaction of

different mechanisms – for example voluntary diffusion processes paving the way for subsequent legal harmonisation – could significantly broaden the scope and increase the speed of convergence (Jörgens 2004; Busch and Jörgens 2005c, 2007b). In sum, comparative studies have shown that national environmental policies are actually becoming more similar over time, but that domestic idiosyncrasies constitute an important intervening factor which often limits the impact of transnational and international convergence mechanisms.

1.2.2 International relations

While scholars in the field of comparative policy analysis focused predominantly on the national determinants of policy change and consequently started out from a theoretical assumption of persisting cross-national differences, international relations scholars focused on international dynamics. Consequently, they were from the outset more open to theoretically derived expectations of cross-national environmental policy convergence. The most widely received of these hypotheses in the environmental field was the prediction of a global race to the bottom regarding standards for environmental, consumer or worker protection (Scharpf 1997a). Although the direction of policy change that this hypothesis implied has repeatedly been challenged on empirical grounds with numerous studies showing that rather than racing to the bottom, domestic environmental policies and standards tend to move steadily towards higher levels of environmental protection (Vogel 1995, 1997; Botcheva and Martin 2001; Bernauer and Caduff 2004; Holzinger 2007; DeSombre 2008), the basic prediction of a cross-national convergence of environmental standards was supported by all of these studies.

The second big strand of research on environmental policy convergence in international relations, but also in international sociology, is based on a constructivist epistemology. Analysing the global proliferation of characteristic elements of modern environmentalism – such as environmental ministries, national parks, environmental NGOs or environmental impact assessments – John Meyer and his colleagues found a worldwide convergence of environmental policies and institutions which they interpreted as the domestic implementation of an emerging global norm or, in other words, a norm-based 'world environmental regime' (Meyer et al. 1997; see also Frank, Hironaka and Schofer 2000; Hironaka 2002).

Most studies on international environmental politics, however, do not deal explicitly with the convergence of national environmental policies. International agreements rather than domestic policies are their

dependent variable (Harrison 2002). The most important strand of this literature, empirical research on international environmental regimes, is predominantly concerned with the development and implementation of common solutions to transboundary environmental problems. Convergence, in this literature, is found mainly with regard to the value states place on environmental protection and their subsequent willingness and ability to reach and comply with multilateral agreements. Although regime studies implicitly assume that domestic policies will converge as multilateral agreements are being implemented, this assumption does not constitute a core concern of the international relations literature and is hardly ever tested empirically. The large body of literature on the effectiveness of international environmental regimes illustrates this. Focusing on issues such as oil pollution at sea (Mitchell 1994a, 1994b), long-range transboundary air pollution (Levy 1993), depletion of the ozone layer (Litfin 1994), the transboundary movement of waste (O'Neill 2000) or ocean dumping of radioactive waste (Ringius 2001), these studies are predominantly interested in the environmental effectiveness of multilateral regimes. Although they often compare systematically how domestic policies change in response to international accords (Miles et al. 2002), their focus is not on cross-national policy clustering or convergence, but rather on the specific design features of international institutions that promote or hinder domestic compliance (Haas, Keohane and Levy 1993).

Within this general regime literature, one particular research strand pays greater attention to the diffusion and convergence of domestic environmental policies. Applying the concept of 'epistemic communities', Haas (1992) and his colleagues stress the impact of transnationally disseminated scientific knowledge. They argue that ideas and causal beliefs which have emerged and were promoted through knowledge-based networks of experts can shape state interests by 'framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation'. According to Haas, this 'diffusion of new ideas and information can lead to new patterns of behaviour' (Haas 1992: 2–3). Again, the dependent variable is international cooperation rather than domestic policy change and convergence. However, as the epistemic community literature explicitly points out, domestic policies may converge as 'the innovations of epistemic communities are diffused nationally, transnationally, and internationally to become the basis of new or changed international practices and institutions and the emerging attributes of a new world order' (Adler and Haas 1992: 373). Other scholars have taken up this point, arguing that epistemic communities and other transnational actor networks may in fact constitute an important mechanism for the diffusion and convergence of domestic policies (Finnemore 2003:

149–50; Orenstein 2008; Veenman 2008) although their homogenising impact will certainly be moderated by domestic factors. Thus, in her study on the national regulation of the pulp and paper industry in Canada, Sweden and the United States, Harrison shows that the impact of internationally shared scientific knowledge was 'undermined by competing domestic interests and different institutional contexts for decision-making' (Harrison 2002: 65).

1.2.3 Bringing the strands together

The research project 'Environmental governance in Europe: the impact of international institutions and trade on policy convergence' (ENVIPOLCON) was developed against the background of the literature reviewed here.[2] Our primary aim for this project was to bring together the different research strands dealing with environmental policy convergence, to overcome their individual shortcomings, to integrate their findings, and thus to 'advance our theoretical and empirical understanding of causes and conditions of crossnational policy convergence' (Holzinger, Knill and Arts 2008: 227). To do so, we adopted a mixed-method approach (Heichel and Sommerer 2009). In a first step, we carried out a quantitative large-n analysis of the extent, the direction and the causes of environmental policy convergence. In the light of previous research on environmental policy convergence, this analysis endeavoured (1) to develop a coherent analytical framework, (2) to include a large number of countries (in this case almost all EU and Eastern European countries), and (3) to cover a large number of environmental policy items located at different levels of the policy process (principles, policies, instruments and standards). To this end, the quantitative part of the ENVIPOLCON project comprised forty environmental policy items in twenty-one European countries as well as the USA, Mexico and Japan, over a period of thirty years. In a second step, forming the subject of this volume, the results of the quantitative study were complemented by systematic in-depth case studies.

Key results of the quantitative study are summarised and discussed in detail in Chapter 2 of this volume. They broadly confirm and in various respects refine the main findings of the studies reviewed in the previous section (Holzinger, Knill and Arts 2008: 228–9). First, they demonstrate that from 1970 to 2000 the environmental policies of the countries under

[2] ENVIPOLCON was financed by the EU and carried out by teams at the universities of Berlin (FU), Hamburg, Konstanz, Nijmegen and Salzburg.

study converged strongly. Second, the study shows that the speed of convergence increased over time during the period of observation. Third, the quantitative analysis makes clear that the degree of convergence decreases with the level of specification of the policy dimension. Convergence is highest with regard to the presence of policies in the countries under consideration and least pronounced for concrete standards, with convergence on particular instruments remaining somewhere in between. Fourth, and similar to previous research in the field of international relations, the study finds no evidence of environmental races to the bottom. Rather, the study confirms that between 1970 and 2000, environmental policies in Europe converged in an upward direction. Fifth, the study finds that environmental policy convergence can basically be attributed to the effects of two causal mechanisms: international harmonisation and transnational communication. By contrast, regulatory competition seems to play no significant role as a causal factor of international environmental policy convergence.

The remainder of this chapter will further elaborate on these findings and present an in-depth qualitative investigation of the actual mechanisms through which environmental policies converge.

1.3 Policy convergence and its mechanisms

We define policy convergence as:

> any increase in the similarity between one or more characteristics of a certain policy (e.g. policy objectives, policy instruments, policy settings) across a given set of political jurisdictions (supranational institutions, states, regions, local authorities) over a given period of time. Policy convergence thus describes the end result of a process of policy change over time towards some common point, regardless of the causal processes. (Knill 2005: 768)

For a more precise analysis of processes of convergence, we make use of three different indicators for assessing policy convergence. Convergence *scope* refers to how many and which countries and policies are converging. Convergence *degree* is about the extent to which policies in the countries at stake have actually become more similar over time. The *direction* of convergence, finally, deals with the question of whether convergence takes place in an upward or a downward direction, i.e. whether it raises or lowers overall levels of environmental protection (Holzinger and Knill 2008).[3] The unit of analysis of our assessment is the state:

[3] In practice, the latter indicator is only relevant for numerical standards, e.g. limit values for the emission of sulphur dioxide or the maximum concentrations of heavy metals in surface water, where we can really speak of a convergence at a more or less stringent level,

scope, degree and direction of convergence all refer to national policies. Consequently, policies adopted at subnational levels do not fall within the scope of this study. Similarly, rule making by private actors such as, for example, the Forest Stewardship Council (Pattberg 2005; Dingwerth 2007) is not included in our study, although – as our case studies show – when adopting or changing domestic environmental policies, governments often respond to the pressure of private actors such as NGOs or firms (on the role of private actors in domestic and international environmental governance, see Wapner 1995; Glasbergen 1998; Newell 2000).

As set out above, the quantitative study preceding this book has given ample evidence of the impressive scope and degree of environmental policy convergence in Europe over the past decades and confirmed the generally upward direction of this process (Holzinger, Knill and Arts 2008). Using statistical analysis, furthermore, it represented an important first step towards understanding the causal mechanisms behind the growing similarity of national policies – highlighting legal harmonisation and transnational communication as the single most important mechanisms through which environmental policy convergence occurred (for a summary of the findings of the quantitative study see Chapter 2). By their very nature, however, statistical methods face certain constraints. First, they need to be selective in the kind of variables investigated, and despite their growing sophistication they face limits in converting a complex and multidimensional world into a quantifiable scheme. This is due to the facts that (a) they will only test for interaction effects already hypothesised and (b) they will underestimate factors that are difficult to quantify. Second, statistical methods focus on aggregate patterns and regularities. Exceptions to the rule are of no particular interest unless they grow to a 'significant' number. Exceptions, however, may be revealing in exposing new causal factors or structures that were unknown to existing research and, hence, untested in the analysis.

Implied in the definition of policy convergence is the process of *policy change* at the domestic level, which follows certain logics and mechanisms that are to be identified. Logically, to be sure, policy change in individual countries does not necessarily lead to convergence. It may also result in the persistence or even amplification of differences between countries. As our quantitative study suggests, however, convergence appears to be the rule in the environmental field over the past decades, and non-convergence rather the exception. While statistical methods are very

i.e. either at the 'top' or at the 'bottom' (Drezner 2001). For convergence regarding, for instance, the use of certain policy instruments or procedural requirements, it is hard, if not impossible, to decide what is 'top' and what is 'bottom'.