Chapter 1

Introduction

The EU was a leading sceptic to international emissions trading in greenhouse gases (GHGs) in the run-up to the 1997 Kyoto Protocol. Four years later, the European Commission proposed the world's first international emissions trading system. The directive on emissions trading was formally adopted by the member-states in the Council of Ministers and by the European Parliament in October 2003. This directive introduced the EU Emissions Trading Scheme (EU ETS) for large industrial emitters of CO_2 from 2005. The first round of implementation in the form of drawing up national allocation plans for the distribution/allocation of CO_2 emission permits was mainly carried out in 2004. By 1 January 2005, the system was up and running. With the ETS, the EU had not only accepted the idea of emissions trading. From being a laggard, it had become a leader in emissions trading within a very short period of time. The EU Emissions Trading Scheme has been acknowledged as one of the most far-reaching and radical environmental policies in many years.

The aim of this book is to understand the EU's turn-about and its consequences. Why did the EU change its position? How did it manage to establish the world's first international emissions trading system so rapidly? What are the consequences so far? In essence, how can we explain the rapid initiation, decision-making and implementation of the ETS in light of the EU's scepticism to including emissions trading in the Kyoto Protocol?[1]

The making and implementation of the EU ETS is politically and environmentally important for several reasons. First, it constitutes the major climate policy instrument of the EU, so the success or failure of the scheme will affect the extent to which the EU will be able to reduce its CO_2 emissions and comply with its commitments under the Kyoto Protocol. Second, the EU Emissions Trading Scheme is the first international emissions trading scheme ever. As such, it represents an innovative political solution to one of the most pressing ecological challenges facing the earth today. Third, and for the same reason, the EU ETS represents a 'grand policy experiment' with ramifications extending far beyond the EU (see Kruger and Pizer 2004). How the Emissions Trading Scheme performs will have consequences for how the international climate negotiations can be brought forward beyond the initial commitment period (2008–12) of the Kyoto Protocol.

The development of the EU ETS is also theoretically interesting and challenging from a social science perspective. Different schools of thought offer different answers to the research questions above. One approach see EU policy-making and integration

1 In stark contrast, the process of getting a highly structured EU carbon/energy tax failed; moreover, it took twelve years to get a weaker version adopted, if we count the carbon tax initiative in the early 1990s as the true starting point of this process.

as mainly a result of interstate bargaining. According to this *intergovernmentalist* approach, the interests and preferences of the EU member-states are the key to understanding the EU ETS. The development of the EU ETS is compatible with an intergovernmentalist approach to the extent the member-states changed their positions, took the initiative and determined the design of the scheme. Another approach explains the EU ETS by pointing to the complexity of the actors and institutions involved at different levels of decision-making. The rapid development of the emissions trading scheme is more in line with *multi-level governance* to the extent it was the EU institutions, industry and environmental non-governmental organizations (ENGOs) that changed their positions and strategies, took the initiative and determined the design of the scheme.

Intergovermentalist and multi-level governance perspectives emphasize EU-internal actors and institutions as key determinants for EU policy-making. But perhaps the main causes of the rapid development of the EU ETS lie outside the EU itself, in the interaction with the international climate regime. In line with this *international regime* approach, we would seek the explanation in the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol's commitments and provision for international emissions trading.

The idea of emissions trading has been – and to some extent still is – controversial and is by no means widely accepted (Lefevere 2005, 92). In the context of climate change, the concept has been challenged for being morally wrong and questionable with regard to equity (Ott and Sachs 2000). The essence of the moral/ethical argument is that emissions trading authorizes pollution, turning it into commodities that can be bought and sold. Equity concerns have been raised particularly with regard to developing countries and international emissions trading. The main argument here is that the richer industrialized countries can simply buy their way out of their obligations and thus maintain their disproportionate consumption of scarce resources. But even if emissions trading is accepted as an idea, transforming this idea into an instrument capable of reducing emissions of GHGs is by no means easy. Emissions trading cannot in itself reduce emissions or pollution: its effect depends upon how it is designed.

The logic behind a smoothly functioning emissions trading system is to encourage companies to decrease emissions by creating a dynamic monetary incentive so they can sell their allowances or credits to other larger polluters, and profit. Such incentives will not evolve if allowances are in excess of 'real' needs, or if monitoring and enforcement are inadequate. Conversely, a well-designed system based on strict caps and adequate monitoring, enforcement and compliance will, at least in theory, offer certainty of emissions reductions corresponding to the stringency of the cap. Unlike domestic trading schemes controlled by governments with authority to track and punish non-compliance, effective international systems are far more difficult to establish. Finally, even a well-designed system will not work if it is not implemented correctly by the participants in the system – which, in this context, means the EU member-states and by industry, its installations and operators.

These three challenges – acceptance of the idea, adoption and design of the system, and practical application – can roughly be related to three phases in the development of the EU Emissions Trading Scheme: policy initiation, decision-

making and implementation. One central assumption is that the three explanatory approaches referred to above will have different explanatory power in these three policy phases. Another underlying assumption is that what happens in the initiation and decision-making phases will have important consequences for how the system is implemented and how well it will work in practice. The devil is not necessarily only in the details – it may very well also be in the major design decisions made along the way.

Below, we place the Emissions Trading Scheme within the perspective of EU climate policy. This brief history will show that the intergovernmental, multi-level governance and the international regime approaches all have their merits. The history of EU climate policy in general and emissions trading in particular cannot be fully understood without reference to non-state actors, member-states, EU institutions and the international climate regime.

A Brief History of EU Climate Policy[2]

References to climate policy began to crop up in European Community documents from the mid-1980s. It was briefly mentioned by the European Commission in 1985, and the Parliament adopted the first official EU document on the subject in the form of a Resolution in 1986 (Official Journal 1986). The Commission followed up with a 1988 Communication on 'The Greenhouse Effect and the Community',[3] recommending further scientific studies and review of policy options. However, the Fourth Environmental Action Programme (1987–92) did not identify climate change as a priority issue.

In 1988 the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) established the Intergovernmental Panel on Climate Change (IPCC), and international policy discussions intensified. During the spring of 1990, the Commission discussed the use of economic and fiscal instruments in environmental policy, including a specific energy/carbon tax. In June 1990, the European Council called for the early adoption of targets and strategies for limiting emissions of greenhouse gases. At a joint meeting of the Energy and Environment Councils in October 1990 (prior to the Second World Climate Conference), political agreement was reached on stabilizing EU CO_2 emissions by 2000 at 1990 levels, on the assumption that other leading countries would take on commitments along similar lines (Skjærseth 1994). This agreement aimed at putting the EU in a leading position, especially in relation to the USA, and at influencing the negotiations on a UN Framework Convention on Climate Change.

The Commission immediately continued to flesh out a more specific climate policy package based on the following central elements:

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2 As this book is about the European Union and emissions trading, this historical overview is written with that particular dimension in mind.

3 European Commission (16 November 1988), COM(88)656, Communication to the Council: 'The Greenhouse Effect and the Community', Commission work programme concerning the evaluation of policy options to deal with the 'greenhouse effect', and draft Council Resolution on the greenhouse effect and the Community (Brussels).

- fiscal measures, particularly an energy/carbon tax;
- measures targeting the transport sector, including a maximum speed limit for private cars;
- measures to improve energy efficiency and the use of renewables, including a revitalization of the existing SAVE energy efficiency programme and a new ALTENER programme on renewables.

In light of subsequent policy developments, it is interesting to note that a spring 1991 version of this developing policy package also included a burden-sharing element, whereby certain countries with higher development needs – in practice, Greece, Ireland, Portugal and Spain – were to be given greater flexibility than the others (Ringius 1999, 139).

An autumn 1991 Communication from the Commission clearly expressed the ambition to act as a global leader at the upcoming June 1992 United Nations Conference on Environment and Development (UNCED).[4] Just before UNCED, a Commission Communication[5] outlined four main measures for the Council to adopt: a framework directive on energy efficiency (within the existing SAVE Programme); a decision concerning promotion of renewable energies (the ALTENER Programme); a directive on a combined carbon and energy tax, on the condition that such a tax was also adopted by 'main competitors' within the OECD; and a decision concerning a monitoring mechanism for CO_2 and other greenhouse gas emissions. However, the Council was not able to adopt any of these proposals prior to UNCED, whereupon Environment Commissioner Ripa de Meana resigned in protest.

The tax proposal led to some of the most ferocious lobby activity ever seen in Brussels. The fossil-fuel industry was able to water down the Commission proposal in a way that also contributed to erode consensus among the member-states (Skjærseth 1994; Newell and Paterson 1998). The UNFCCC was adopted at UNCED. It contained as a main element a loose commitment for industrialized countries, 'individually or jointly', to return to earlier levels of anthropogenic emissions of CO_2 and other greenhouse gases by the year 2000.

After UNCED the Commission gave priority to getting the climate policy package adopted. Not surprisingly, putting the monitoring mechanism in place proved least problematic, and this was adopted in June 1993. The budgets for both SAVE and ALTENER were considerably reduced, and watered-down versions of both programmes were adopted in September 1993. However, getting the energy/carbon tax adopted proved even more problematic. Due to unanimity requirement in EU's fiscal environmental policies, this was bound to be a controversial element of the package. From the very start, there had been considerable scepticism and resistance. For instance, the 'cohesion countries' (Greece, Ireland, Portugal and Spain) would accept a tax only in return for additional structural funding; France argued for a

4 European Commission (14 October 1991), SEC(91)1744 final, Communication from the Commission to the Council: A Community Strategy to Limit Carbon Dioxide Emissions and to Improve Energy Efficiency.

5 European Commission (1 June 1992), COM(92)246, Communication from the Commission: A Community Strategy to Limit Carbon Dioxide Emissions and to Improve Energy Efficiency (Brussels).

pure carbon tax in order to protect its nuclear industry; and the UK was opposed to any such tax at the EU level. As unanimity seemed increasingly unattainable and there was no sign of main OECD competitors establishing similar taxes, the idea of a common energy/carbon tax was downplayed towards the end of 1994.[6] This – as well as the slashing of the SAVE and ALTENER budgets – should probably be seen in light of the more general shift in EU integration trends in the early 1990s towards 'subsidiarity' and 'the limiting of EU powers' (Collier 1997).

In the preparatory process to the first UNFCCC Conference of the Parties (CoP) to be held in Berlin in 1995, the EU agreed to aim for the launch of negotiations on a new protocol with strengthened commitments, to be concluded by the time of the third CoP, in 1997. This was also very much the outcome of the first CoP (the 'Berlin Mandate'). The Ad Hoc Group on the Berlin Mandate (AGBM) was established as a forum for discussions and negotiations towards the new protocol.

Already by the end of 1995, the EU position was to combine a target for the Union as a whole with an internal burden-sharing agreement. However, reaching agreement on a position for both a common target and an internal sharing proved difficult, and several EU countries, including Germany, tabled their own protocol proposals within the AGBM. In order to meet the March 1997 final deadline for tabling protocol proposals (including the development of a specific burden-sharing formula), under the leadership of the Dutch Presidency, an agreement on a 15 per cent joint target and a specific burden-sharing formula for differentiated targets for individual member-states amounting to an overall reduction of 9.2 per cent by 2010 was hammered out in early March (Ringius 1999). This enabled the EU to stand out as the most ambitious by far of the major actors.

In Kyoto in December 1997, the EU spent much time on internal coordination and trying to stand up against US ideas on a protocol based on flexible mechanisms such as international emissions trading. The EU succeeded in getting a protocol adopted with strengthened commitments and with the USA on board, but the more specific design of the protocol has a distinct US flavour. Three flexible mechanisms became central ingredients of the Kyoto Protocol: emissions trading, Joint Implementation (JI), a Clean Development Mechanism (CDM). The EU's own target became an 8 per cent reduction of greenhouse gases (GHGs) by 2008–12 from 1990 levels. Furthermore, similar to other parties to the Protocol, the EU should make demonstrable progress in achieving its commitment by 2005.

After Kyoto, both the Community and the individual member-states had quantitative targets. However, the Kyoto outcome deviated from the EU's assumptions underlying the 1997 Burden-sharing Agreement, as the target was less ambitious. The number of gases had been expanded, and there was a commitment period from 2008 to 2012 rather than a single target year of 2010.[7] The 1997 agreement was

6 Instead, the European Council instructed the ECOFIN Council to consider common parameters to enable member-states to apply a CO_2 tax (Wettestad 2000).

7 The EU reduction target was reduced from 15% by 2010 to 8% over the period 2008–12, and the number of greenhouse gases was increased from three to six. The Kyoto Protocol encompasses six gases: Carbon dioxide (CO2); Methane (CH_4); Nitrous oxide (N_2O); Hydro fluoro-carbons (HFCs); Perfluorocarbons (PFCs); and Sulphur hexafluoride (SF_6). It was

hence revised and transformed into a Burden-sharing Agreement in June 1998, with the 8 per cent reduction commitment divided among the EU member-states as shown in Table 1.1.

Table 1.1 Member-state goals under the 1998 Burden-sharing Agreement

Austria	–13.0%
Belgium	–7.5%
Denmark	–21.0%
Finland	0.0%
France	0.0%
Germany	–21.0%
Greece	+25.0%
Ireland	+13.0%
Italy	–6.5%
Luxemburg	–28.0%
The Netherlands	–6.0%
Portugal	+27.0%
Spain	+15.0%
Sweden	+4.0%
United Kingdom	–12.5%

The Burden-sharing Agreement became legally binding in 2002. Later it came to serve, together with the Kyoto commitments, as the foundation for allocating emissions allowances under the EU ETS.

At least from the perspective of the Commission, there was a clear need for new policy instruments at the community level to meet the Kyoto commitments. Although the EU was well under way to achieving stabilization by the 2000 target, it was clear that this was very much due to the 'dash-to-gas' in the UK, and re-unification effects in Germany.[8] Efforts to dress up the carbon/energy tax as an energy tax in 1997 did not help, as key European industries and member-states like Spain and the UK continued to mount vociferous opposition. Other elements of the initial climate policy package, such as SAVE and ALTENER, remained weak and inadequate (Wettestad 2001).

mainly the US that argued for including the three latter gases. The EU was sceptical, but finally chose to give in (see Grubb et al. 1999, 75–6).

8 The 'dash-to-gas' from coal in the UK was not primarily motivated by environmental policy concerns; it, so to speak, brought down emissions without specific environmental abatement costs. In a somewhat similar manner, the German re-unification and related closure and restructuring of industry in the East brought down emissions without specific environmental abatement policy costs, as a one-off process. See also Chapters 4, 5 and 6.

As a first and symbolically important development, a shift in the position on emissions trading was announced in the 1998 and 1999 Communications on EU Kyoto strategy and implementation.[9] The discussion on possible options as to the design of such a system moved a considerable step further with the March 2000 Green Paper on an EU emissions trading system.[10] In the same month, the second part of the Commission's new policy development was launched: the European Climate Change Programme (ECCP). This programme was initially divided into six working groups, of which four focused on policies and measures in the energy consumption, energy supply, transport and industry sectors. One group focused upon research and one on flexible mechanisms including emissions trading (WG I). The ten WG I meetings held between July 2000 and May 2001 served as a stakeholder exercise, including industry and ENGOs, in terms of elaborating the platform for an EU ETS.

Meanwhile, in March 2001, President Bush pulled the USA out of the still unratified Kyoto Protocol. The EU now became the pivotal actor for achieving ratification of the Protocol, with US exit opening a window of opportunity for the EU to exert global climate policy leadership. As we shall see, the EU Emissions Trading Scheme was to become an important expression of leadership, evolving from an instrument for implementing the Kyoto Protocol to an instrument for saving the Protocol. The report of the ECCP, published in July 2001, contained a number of proposals for further policies and measures. The Commission's ET directive proposal was put forward in October 2001 (Christiansen and Wettestad 2003). This proposal outlined a system that initially targeted mainly the power sector and included only CO_2 emissions.

Although broader climate policy development continued along the lines drawn up by the ECCP, the further and quick development of an ETS became the flagship of EU climate policy. The ET Directive was formally adopted by the Council in October 2003, as Directive 2003/87/EC (Wettestad 2004; 2005). As this Directive dealt with the internal EU system, a subsequent decision-making process produced a directive specifying the links between the EU ETS and the flexibility mechanisms under the Kyoto Protocol. Political agreement on the Linking Directive was reached in April 2004. As a main element, the Directive allows CDM credits to be used already from 2005 on, and JI credits from 2008. The Directive was formally adopted in October 2004, as Directive 2004/101/EC.

Meanwhile, national implementation of the emissions trading directive was well underway. A central task here was the drawing up National Allocation Plans (NAPs), setting both total ceilings (caps) for the emissions in the pilot phase 2005–07 and distributing this total among the industrial installations covered. Although the process of completing the NAPs and establishing national allowance registries

9 European Commission (June 1998), COM(98)353, Commission Communication to the Council and the Parliament. Climate change – Towards an EU Post-Kyoto Strategy (Brussels); European Commission (19 May 1999), COM(99)230, Commission Communication to the Council and the Parliament. Preparing for Implementation of the Kyoto Protocol (Brussels).

10 European Commission (8 March 2000), COM(2000)87 final, Green Paper on Greenhouse Gas Emissions Trading within the European Union (Brussels).

was delayed, the system was launched according to plan early in 2005 (Wettestad and Sæverud 2005).

Research Strategy

The focus for explanation in this study is the rapid development of the EU Emission Trading Scheme in light of previous EU opposition to emissions trading. We distinguish between three main phases. First, the initiation of the ETS, in which the development of emissions trading as an idea constitutes our central concern. Second, the formal decision-making between the EU institutions and member-states on the design, degree of harmonization and adoption of the system. And third, the implementation phase, in which member-states allocated their emission allowances according to specific criteria, thereby determining the ambitiousness of the system.

As noted, we explore three different explanatory approaches that will provide differing answers as to what happened and why. This research strategy resembles Graham T. Allison's classic study *The Essence of Decision: Explaining the Cuban Missile Crisis,* with three different 'lenses' through which analysts can examine events (Allison 1971).[11] First, the development of the EU ETS may be seen through the lenses of nation-states and explained by changes in the interests and preferences of the EU member-states. The member-states may have requested the system, determined the design and allocated the emission allowances accordingly. According to this intergovernmentalist approach, which has been elaborated in various ways, national governments are the ultimate decision-makers within the EU system (on this, see for example Moravcsik 1998). Consequently, the EU institutions have limited independent authority, and primarily serve the goals of national governments. The state is assumed to be rational, but not necessarily unitary. Non-state actor interests like industry and ENGOs affect policy-making, but solely through the domestic channel of interest aggregation.

Second, the development of the EU ETS can be seen through the lenses of the EU institutions and explained by the positions taken and the roles played by the European Commission, the European Parliament and the European Court of Justice. Also aspects of the functioning of the Council are relevant here, such as decision-making procedures. This EU institutional explanation is based on a multi-level governance perspective on EU policy-making (see Hooghe and Marks 2001; Fairbrass and Jordan 2001). This perspective has also been elaborated by several scholars in various forms, but all share the assumption that supra-national institutions have an independent effect on policy-making beyond their role as representatives of national governments. In addition, this perspective points to the importance of non-state actors that can influence EU policy directly at EU level.

Third, the development of the Emissions Trading Scheme can be seen through the lenses of the international climate regime. Whereas the intergovernmental and multi-level governance approaches focus on EU-internal explanatory factors, the international institutional context has been identified as one important force towards

11 In Allison's study these were the Rational Actor, Organizational Behaviour and Governmental Politics models.

convergence in EU environmental policy (see Weale et al. 2000). In most areas of transnational environmental problems, there is an international environmental regime interacting with EU environmental policy. In the field of climate policy, the most important international context for the EU remain the United Nations Framework Convention on Climate Change and the Kyoto Protocol.

We will use these three complementary explanatory approaches as *heuristic devices* for deriving more specific explanatory perspectives. From these perspectives, we develop empirically testable propositions related to the various phases of policy-making. These perspectives can be assessed empirically by a means of pattern matching and explanation building (Yin 1989). The better the match between proposed and observed patterns in the three phases, the more confidence we will have in the ability of a given perspective to explain the phenomena it is intended to represent. A central assumption is, as noted, that the three explanatory perspectives will have different explanatory power in different phases. In essence, this work is a theoretical case study in the sense that we systematically apply propositions derived from social science theory to understand the EU Emissions Trading Scheme, using the case of the ETS to refine social science theory.

Data collection has been based on interviews, official documents and secondary studies. In various rounds, we have interviewed representatives from industry, ENGOs, the European Commission, the European Parliament, member-states and also other analysts/researchers. A full list is attached in Annex I.

Outline of the Book

In Chapter 2, we present the analytical framework for analysis. While arguing that the three explanatory approaches are compatible and may be of differing relevance for the different policy phases, this chapter develops several testable propositions that apply to each of the three policy-making phases. As the EU is unique, being neither a federation nor an international organization or regime, it was necessary to include some general empirical information about how the EU works, in order to make sense of the various propositions.[12] Chapter 3 focuses on the collective and individual outcomes of the various policy phases: the initiation, decision-making and implementation phases. This chapter takes us from the first Communication that hinted at a possible EU Emissions Trading Scheme, through the formal proposal and adoption of the ET Directive, to actual application at the level of member-states. Chapters 4–6 explain the developments set out in Chapter 3. In Chapter 4, we explain the development of the idea of emissions trading. Chapter 5 focuses on the decision-making phase and examines the development of the system. In Chapter 6, we assess and explain the implementation of the system so far, with particular attention to the level of ambition in allocating allowances. Finally, in Chapter 7, we conclude the analysis by summarizing the empirical findings, discussing the analytical implications and reflecting on the further development of the system.

12 For a discussion of the uniqueness of the EU compared to an international regime, see Skjærseth and Wettestad 2002.