

for explaining these outcomes in Chapters 4, 5 and 6. Chapter 4 focuses on policy initiation, Chapter 5 on decision-making, and Chapter 6 on implementation.

## Chapter 3

# Development of the EU ETS

This chapter provides an initial overview of the development of the EU Emissions Trading Scheme, broken down into three policy phases. First is the phase of initiation, which started after Kyoto in 1997 and ended with the March 2000 Green Paper, before the European Commission started drafting the ET directive proposal in January 2001. Here we need to analyse how the idea of emissions trading developed within the EU, along with how main issues of design were gradually clarified. Second is the decision-making phase, starting with the Commission's drafting of the ET directive proposal in 2001 and ending with the formal adoption of the Linking Directive in October 2004. In this phase, the main focus is on the changes that took place between the Commission's ET directive proposal and the final political agreement on the 2003 ET Directive between the Council and the Parliament in June 2003. The third phase, implementation, started immediately after the formal adoption of the ET Directive in October 2003, with the production of National Allocation Plans (NAPs) in two rounds: 2003–05 for the EU ETS pilot phase; and 2005–07 for the Kyoto commitment phase. The main question here is to what extent the member-states have achieved the goal of promoting reductions of greenhouse gases. As not long time has passed, we examine primarily the ambitiousness of allocations.

### **Initiation: From Idea to Green Paper**

The Kyoto Protocol, negotiated in December 1997, established three flexible mechanisms as important aspects of global climate policy: Emissions Trading (ET), Joint Implementation (JI), and the Clean Development Mechanism (CDM). During the Kyoto negotiations, the EU opposed flexibility and argued in favour of domestic action. As the USA was not willing to accept a binding numerical target without flexibility, the EU had to yield, in order to ensure that a binding target was achieved in the Kyoto Protocol. Emissions trading was thus included in the Kyoto Protocol (Article 17), but merely as an option. The specific rules for international emissions trading were to be defined later. At this time the Kyoto Protocol was far from being ratified, and was consequently not binding for the EU member-states.

Nevertheless, in May 1998, what may have been the first officially positive signals on emissions trading came out of the Commission. In connection with the preparatory process for a meeting within the Kyoto Protocol in Bonn in June 1998, a Commission official, speaking to *International Environment Reporter* on the condition of anonymity, stated:

seen as obstructing progress... We want to make a constructive contribution to setting the rules and regulations for an international emissions trading scheme that will help meet the goals of the protocol.<sup>1</sup>

This was followed up in June by Environment Commissioner Ritt Bjerregaard, who proclaimed: 'we have to get involved in emissions trading [...] we cannot let others dictate the rules'.<sup>2</sup> Here it should be noted that the outlook of the Commission with regard to emissions trading was still primarily international in nature. The EU expected agreement to be reached on international rules for emissions trading at the UNFCCC Fourth Conference of the Parties (CoP-4) in Buenos Aires in November that year.

In June 1998, the European Commission published the Communication *Climate Change – Towards an EU Post-Kyoto Strategy*,<sup>3</sup> which can be seen as the first step in the development of an EU strategy to meet the Kyoto Protocol commitments. As described in Chapter 1, at Kyoto the EU had agreed to reduce emissions of greenhouse gases (GHGs) by 8 per cent of 1990 levels by 2008–12. The Communication put a series of key questions to the Council of Ministers. The more short-term horizon was the upcoming CoP-4 in Buenos Aires, and the questions related partly to the formulation and clarification of the EU's negotiating position. A comprehensive climate strategy would have to incorporate all sectors of the EU economy, possible areas for action, and the international dimension. To develop this strategy the Community and the member-states were to start an interactive process. An EU framework could be established to co-ordinate their respective actions, exchange data, track progress and identify areas for action to meet commitments. It was underlined that if demonstrable progress were to be realized by 2005 – as called for in the Kyoto Protocol – 'then certain elements need to be in place by 2002 which requires a confirmation to move on certain actions now'.<sup>4</sup>

The Communication noted that a comprehensive strategy would need to take into account all the provisions in the Kyoto Protocol, in particular the 'flexible mechanisms'. These mechanisms could 'play an important role in meeting commitments at less cost, thereby safeguarding the competitiveness of EU industry'.<sup>5</sup> The weight given to these mechanisms, which the EU had originally opposed, is reflected in the fact that roughly two-thirds of the 1998 Communication dealt with various aspects of them. With regard to emissions trading specifically, a Community-wide approach was seen as preferable to one with differing member-state systems,

1 *International Environment Reporter* (27 May 1998), 'EU Divided on Whether to Limit Use of Emission Trades for Meeting Targets', 21:11, 503.

2 *International Environment Reporter* (24 June 1998), 'EU Agrees on Burden-sharing Plan for Emission Cuts under Kyoto Protocol', 21:13, 609.

3 European Commission (June 1998), COM(98)353, *Commission Communication to the Council and the Parliament. Climate change – Towards an EU Post-Kyoto Strategy* (Brussels).

in order to facilitate administrative implementation of the system and prevent new barriers to trade.<sup>6</sup>

The lack of national and international experience pointed towards a step-by-step approach.<sup>7</sup> This could mean initially limiting:

- the number of gases included to CO<sub>2</sub>, the best-documented greenhouse gas;
- trading to best-known sources, such as large combustion plants;
- trading to member-states and not private entities.

Importantly, the Communication stated: 'the Community could set up its own internal trading regime by 2005 .... This would provide the Community with invaluable practical experience of trading ... and ensure that the Community would be better prepared at the start of international emissions trading with effect from 2008'.<sup>8</sup> This led on to a request to the Council for more general endorsement of 'the introduction of the flexible mechanisms in a step-by-step and co-ordinated way within the Community'.<sup>9</sup> Hence, it seems reasonable to conclude that the idea of an internal EU Emissions Trading Scheme was now officially launched – cautiously and tentatively – by the Commission.

With regard to international emissions trading within the context of the Kyoto Protocol, the Communication emphasized the principles of openness, transparency, non-discrimination, and a stepwise approach (similar to the more specific Community context). Furthermore, it was stressed that emissions trading and flexibility instruments should in principle be 'supplemental': the main means of meeting Kyoto commitments should be provided by domestic action, as stipulated in the Kyoto Protocol. The idea and possibility of a 'concrete, quantitative' ceiling on all three mechanisms taken together was launched to facilitate domestic action, and the need for strict monitoring and the possibility of international sanctions, 'even penalties', was emphasized.<sup>10</sup> The Commission concluded by promising to present a more complete post-Kyoto strategy in the first half of 1999, and again it was underlined that the EU would have to make demonstrable progress by 2005.<sup>11</sup>

The discussion of a possible EU ETS was taken a bit further in the May 1999 Communication *Preparing for Implementation of the Kyoto Protocol*.<sup>12</sup> This was based on the conclusions of the Vienna European Council in 1998 and served as the Commission's input to the 1999 European Council Summit held in Cologne. In Vienna, climate change had been defined as one of the most challenging environmental problems for the coming decades, and it was agreed that the Community should intensify its work on common and coordinated policies and

6 *Ibid.*, 2, 18.

7 *Ibid.*, 19.

8 *Ibid.*, 20.

9 *Ibid.*, 21.

10 *Ibid.*, 24, 25.

11 *Ibid.*, 29.

12 European Commission (19 May 1999), COM(99)230, Commission Communication

measures. Emissions were on an upward track, and more needed to be done to curb this trend. Accordingly, the focus in the May 1999 Communication was on progress in policies and measures at the Community level and possible new initiatives. This included 'common and co-ordinated measures', targeting sectors like transport and households; 'fiscal incentives', mostly focused on a possible energy products tax; 'environmental agreements', which were described in positive terms, but the need to conclude new ones quickly was emphasized, again with reference to the importance of making 'demonstrable progress by 2005'.<sup>13</sup>

With regard to flexible mechanisms, it was noted that they were new and 'fundamentally different' from previous EU environmental policy. There was a clear need for more knowledge about the mechanisms.<sup>14</sup> Global emissions trading would not start until 2008, and would probably not be based on particularly detailed rules and guidelines. In the meantime, 'the best preparation for the Community and its Member States might be to develop their own trading experience'; the 1998 Communication had already launched the target date of 2005.<sup>15</sup> This conclusion must be seen in light of the failure to define the rules for international emissions trading at the 1998 CoP in Buenos Aires.<sup>16</sup> A possible broad consultation exercise in the year 2000 and a subsequent Green Paper were proposed. Two main themes for the Green Paper were indicated: first, the participation of private entities, which could increase cost-effectiveness but also lead to tricky issues of harmonization and competitive distortions. Second, compatibility with existing EU environmental policy was emphasized. Although both an 'upstream' system (targeting fossil-fuel producers and importers), and a 'downstream' system (targeting end-users of energy), were conceivable, the latter would be most in line with a cautious, stepwise approach. Such a system could start with large emitters or a single economic sector, and the most accurately measured gas – CO<sub>2</sub>.<sup>17</sup>

With regard to the links to the two other main flexibility mechanisms in the Kyoto Protocol – the JI and the CDM – it was noted that the CDM could start already from the year 2000. Here it was emphasized that none of the three mechanisms should be disadvantaged against the others through special fees or administration costs.<sup>18</sup> The issue of EU enlargement was also briefly commented upon: the Community should assist the candidate countries in developing their institutional and technical capacity and raise the profile of climate policy issues with stakeholders and the public in these countries.<sup>19</sup>

13 Ibid., 8.

14 Ibid., 14.

15 Ibid., 15.

16 These rules were not finally agreed until CoP-7 in Marrakech in October 2001.

17 European Commission (19 May 1999), COM(99)230, *Commission Communication to the Council and the Parliament. Preparing for Implementation of the Kyoto Protocol* (Brussels), 15–16.

But it was the *Green Paper on greenhouse gas emissions trading within the European Union*,<sup>20</sup> published in March 2000, that really started to give flesh and blood to the idea of an EU Emissions Trading Scheme. The Green Paper marked the start of a broad EU consultation process. At the outset, it was emphasized that EU emissions trading should complement and be compatible with other policies.<sup>21</sup> Although previous Communications had stressed that this instrument was new to the EU, the GP noted that there were in fact relevant earlier EU instruments – quotas for Ozone Depleting Substances, for fish catches, for milk.<sup>22</sup> The Commission now came out more clearly in favour of involving private entities (companies) in emissions trading, seeing this as a 'unique opportunity for cost-effective implementation'.<sup>23</sup>

With regard to the design options described in Chapter 2, the Commission first argued that a main attraction of emissions trading was that it would provide certainty as to the environmental outcome. This means that the Commission preferred a cap-and-trade system, based on a total cap on emissions from the sources covered by the system, rather than a baseline-and-credit system. Various issues related to coverage were also discussed. Although in principle the best thing would be a broad and comprehensive system covering all six main GHGs and sinks and all emission sources, there were 'sound scientific and practical reasons', not least related to monitoring, for not necessarily pursuing that option further, and instead restricting the scope to large fixed-point sources of CO<sub>2</sub>.<sup>24</sup> This reflected the preference for a downstream system, as signalled back in 1999. The Large Combustion Plant (LCP) and Integrated Pollution Prevention and Control (IPPC) Directives offered useful reference points. The following sectors were suggested for initial inclusion, covering around 45 per cent of EU CO<sub>2</sub> emissions (with electricity and heat production accounting for 30 per cent of EU CO<sub>2</sub> emissions alone):

- electricity and heat production
- iron and steel
- refining
- chemicals
- glass, pottery and building materials
- paper and printing.

It was acknowledged that member-states differed with regard to interest in emissions trading, and the possibility of 'opt-in' (of those most interested) and 'opt-out' (of reluctant member-states or particular sectors) was noted. Opt-out for member-states would in reality mean a voluntary ET system.

As to the method of allocation, it was indicated that auctioning was technically preferable, and that 'free allocation ... should not necessarily be considered an easy

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

21 Ibid., 6.

22 Ibid., 8.

option'.<sup>25</sup> With regard to compliance and enforcement, it was noted that the strength and environmental integrity of any emissions trading regime would depend largely upon its compliance provisions and a robust enforcement regime. The existence of strict penalties would have a deterrent effect: such penalties should 'significantly' exceed the cost of complying.<sup>26</sup>

In addition to specific design issues, the Green Paper included various aspects of harmonization between the Community and the member-states. In principle, EU emissions trading could be organized at several levels, with varying degrees of Community intervention. A trade-off was noted between providing high equality of treatment and simplicity on the one hand and high member-state autonomy on the other. The latter could lead to segregation, which would run counter to the objectives of the internal market.<sup>27</sup> The Green Paper outlined several options concerning the 'level of possible diversity within the Community'. A system with coverage agreed at Community level would provide optimal conditions for equal competition. In the same context of harmonization, concerning the allocation of allowances (the quantity of greenhouse gas emissions assigned to each participant in the system), an implicit plea was made for a centralized setting of the national ceilings or 'caps'.<sup>28</sup> A more decentralized approach would require 'detailed and tight guidelines on how allocations are made in individual sectors and companies, and close scrutiny of every single case'. Also discussed was the synergy with other policies and measures, including the IPPC Directive, voluntary agreements, and energy taxation. With regard to the relationship between emissions trading and the IPPC Directive, the GP noted that some clarifications were required but that no major problems were envisaged.<sup>29</sup>

Summing up this phase of initiation, the first positive signals about emissions trading started to come out of the European Commission in late spring 1998. Initially the discussion was geared towards the role of the EU in relation to the global flexibility mechanisms under the Kyoto Protocol. However, it is important to note that the idea of a pilot, EU-internal scheme for emissions trading was launched already in the June 1998 Communication on an EU post-Kyoto strategy. This can be linked to the weight given in this Communication to the EU being able to show demonstrable climate policy progress by 2005, as called for in the Kyoto Protocol. Discussions of a possible internal EU emissions trading system were taken a bit further in the May 1999 Communication on preparing for the implementation of the Kyoto Protocol. As its main new element, this Communication launched the idea that such a system should initially have basically narrow coverage, targeting large

25 Ibid., 18–19.

26 Ibid., 24.

27 Ibid., 12.

28 See the statement that 'If the Community were to agree on the quantity of emissions of the trading sectors in each Member State, possible distorting allocations to individual sectors or companies would be significantly limited'. European Commission (8 March 2000a), COM(2000)87 final, Green Paper on Greenhouse Gas Emissions Trading within the European Union (Brussels), 18.

emitters or a single economic sector, and only CO<sub>2</sub> (as noted, the most measurable gas). Issues of harmonization and degree of centralized control were floated only in general terms.

These issues were then taken a significant step further in the March 2000 ETS Green Paper. Reading both the actual text and between the lines, it must be concluded that the Commission made a plea for a quite centralized and hence harmonized system for determining the crucially important emission ceilings/caps within the system, emphasizing the substantial institutional challenges that a more decentralized approach would entail. The suggested coverage of the system was in line with the 1999 Communication, but, with reference to the LCP and IPPC Directives, six sectors were now singled out, with electricity and heat production by far the largest.

### Decision-making: From Proposals to Directives

In this section we first sum up main elements of the Commission's ET directive proposal, launched in October 2001. The second section documents and discusses the main changes in the form and content of the Commission's proposal which emerged from the final agreement between the Council and the Parliament at the end of June 2003. As this June agreement left the link between the EU Emissions Trading Scheme and the Kyoto flexibility mechanisms to be further specified in a subsequent amending directive, the third section sums up the main specifying elements that emanated from the agreement on the Linking Directive in April 2004.

#### *The Commission's ET Proposal*

What specific design choices were made in the European Commission's *Proposal for a Directive establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council directive 96/61/EC*,<sup>30</sup> seen in light of the various options discussed in the Green Paper? Let us first note that the proposal was based on Article 175 (1) of the Treaty, which required adoption by a qualified majority in the Council and co-decision with the European Parliament.<sup>31</sup> The proposal built on responses to the Green Paper and on extensive consultation with stakeholders.

Regarding the questions of harmonization and degree of centralized control, the overall approach tended to favour decentralization. The proposal stated that 'the quantities of allowances issued would not be harmonised' and 'the total quantity of allowances issued under the proposal would be left essentially to the Member

30 European Commission (23 October 2001), COM(2001)581, *Proposal for a Directive of the European Parliament and of the Council Establishing a Framework for Greenhouse Gas Emissions Trading within the European Community and Amending Council Directive 96/61/EC* (Brussels).

States'.<sup>32</sup> The Commission related this to the varying emission reduction obligations in the EU Burden-sharing Agreement and differences in sources of emissions and fuel mixes in different member-states. However, the need for a certain degree of harmonization and central control was also emphasized. Member-state allocations should be based on several common criteria; these allocations should be communicated to the Commission, and could be rejected if the criteria were not observed, including also Community requirements concerning state aid.<sup>33</sup> This meant that the individual and collective reduction ambitions would become clearer only after the process of drawing up NAPs was well underway. As we shall see in Chapter 5, the criteria constraining national allocations became subject to intense negotiations between the European Parliament and the EU member-states.

Concerning coverage, a mandatory system for all member-states was proposed, with no possibilities to add or exempt sectors or installations. The proposal followed up the idea launched in the Green Paper of initially targeting only CO<sub>2</sub>, noting that this would be 'capable of generating good quality monitoring data on a consistent basis'.<sup>34</sup> Moreover, as also indicated in the Green Paper, only large point sources were to be included. Sectoral coverage was almost the same as in the Green Paper, but now organized in the form of four main 'activities':

- energy;
- production and processing of ferrous metals;
- mineral industry;
- other activities<sup>35</sup>

The main difference from the Green Paper was that the chemicals sector was not included in this proposal.

On allocation and allocation method, since the member-states would have no legally binding targets limiting GHG emissions in the pilot phase (2005 to end 2007), allowances should be allocated free of charge. Such a common approach would protect the internal market. The allocation method in future commitment periods would be decided on the basis of a June 2006 review of experiences.<sup>36</sup> Initial

32 European Commission (23 October 2001), COM(2001)581, Proposal for a Directive of the European Parliament and of the Council Establishing a Framework for Greenhouse Gas Emissions Trading within the European Community and Amending Council Directive 96/61/EC (Brussels), 5, 11

33 Ibid., 5–6, 11.

34 Ibid., 9.

35 'Energy activities' included combustions installations with a rated thermal input exceeding 20MW, mineral oil refineries, and coke ovens. 'Production and processing of ferrous metals' included metal ore and installations for the production of pig iron or steel. 'Mineral industry' included installations for the production of cement clinker, installations for the manufacture of glass, and installations for the manufacture of ceramic products. 'Other activities' included industrial plants for the production of pulp and paper and board. See Annex I of the proposal (p.32).

allocations should be based on the ET Directive and the aforementioned criteria and the 1998 Burden-sharing Agreement.

Compliance and enforcement guidelines were put forward, and it was proposed to leave it to the discretion of member-states whether emissions verification should be done by their competent authorities or through independent verifiers. In the pilot phase, a penalty for non-compliance of €50 (or twice the average market price) per ton CO<sub>2</sub> emitted above allocated quantity was suggested; this penalty increasing to €100 in the first Kyoto Protocol commitment period.<sup>37</sup>

New issues were also included in the proposal. The proposal suggested that member-states should be free to decide whether to allow banking of allowances from the period ending in 2007 and that starting in 2008. As from 2008, however, it was suggested that they should be required to allow 'banking' of allowances from one five-year period to the next.<sup>38</sup> The Commission did not want to stipulate how the market in emissions allowances was to be organized; this was to be left open to solutions driven by the private sector.<sup>39</sup> Links with other emissions trading schemes and renewable certificates were generally welcomed. Concerning the links to flexibility mechanisms under the Kyoto Protocol, their eventual inclusion was desirable, on condition that outstanding issues regarding their environmental integrity could be solved. However, due to uncertainty about the rules of these mechanisms, a separate subsequent linking proposal was suggested.<sup>40</sup>

#### *Agreement between the Council and the Parliament*

As will be specified and discussed in Chapter 5, the further main dynamics of the decision-making process unfolded as follows: the European Parliament started its first reading process in the spring of 2002 and adopted its plenary position on 10 September 2002. Some 80 suggested amendments to the directive proposal were adopted, involving significant changes to the coverage and the allocation mechanism of the system. This was followed by discussion on and adoption of a Council Common Position on the ET Directive on 9 December 2002. Here a main outcome was that the Council chose to uphold the body of the Commission's proposed design.

The second reading process then started in late spring of 2003, and the Parliament's Environment Committee adopted its main position on 11 June 2003. The Committee decided to re-table 25 of the amendments put forward in the first reading process, singling out four especially central issues, including a substantial broadening of

Gas Emissions Trading within the European Community and Amending Council Directive 96/61/EC (Brussels), 11.

37 Ibid., 14.

38 Ibid., 12. Banking means to carry over allowances from one commitment period to the next.

39 European Commission (23 October 2001), COM(2001)581, Proposal for a Directive of the European Parliament and of the Council Establishing a Framework for Greenhouse Gas Emissions Trading within the European Community and Amending Council Directive 96/61/EC (Brussels), 16.

the coverage of the scheme and a significant portion of auctioning. The plenary discussion and vote in the Parliament were scheduled to take place in the beginning of July. However – and this clearly signified the urgency surrounding this issue, and reflected hopes from all sides that the potentially long conciliation procedure could be avoided – negotiations between the EP and the Council were initiated rapidly after the vote in the Environment Committee, with a deadline of 20 June. Following compromise proposals tabled on 23 June by EU member-state representatives, the negotiations were crowned with success on 25 June and formalized in a subsequent process in July.

The Parliament accepted the outcome of the negotiations in plenary on 2 July, also adopting 17 amendments, mostly minor clarifications.<sup>41</sup> Only four votes were cast against the ET Directive at this final reading in Parliament (Vis 2006a, 40). On 18 July 2003, the Commission expressed its formal opinion on the outcome, discussing and – probably not so surprisingly – accepting the 17 amendments adopted by the Parliament on 2 July.<sup>42</sup> The Council formally adopted the directive on 22 July 2003. As the final step in this part of the story, the ET Directive became formal EU law when it was published in the EU Official Journal on 25 October 2003.<sup>43</sup> Let us now turn to the main outcome and the extent to which the Commission proposal was upheld or altered.

Starting with the issue of *harmonization and degree of centralized control*, the final outcome was generally in line with the Commission proposal, with a fundamentally decentralized approach to setting emission caps (see Article 9 in the ET Directive). However, unlike the Commission proposal, the criteria for national allocation plans were specified in Annex III of the Directive. In particular it was stipulated in the first criterion that, prior to 2008, the total quantity of allowances to be allocated should be consistent with a path towards achieving or over-achieving each member-state's EU Burden-sharing Agreement or Kyoto Protocol target. The 10 new member-states that joined the EU as of 1 May 2004 were not parties to the 1998 Burden-sharing Agreement, but had obligations under the Kyoto Protocol.

As to *coverage*, the Commission proposed a quite narrow and limited initial system, targeting only CO<sub>2</sub> and with 'energy activities' representing by far the main part of regulatory action. Again, overall, the final outcome was very much in line with the Commission proposal, with the 'activities' and greenhouse gases lists (provided

41 European Parliament (2 July 2003), Greenhouse Gas Emission Allowance Trading, European Parliament Legislative Resolution on the Council Common Position with a View to Adopting a European Parliament and Council Directive Establishing a Scheme for Greenhouse Gas Emissions Allowance Trading within the Community and Amending Council Directive 96/61/EC (15792/2002-C5-0135/2003-2001/0245 (COD), P5\_TA(2003)0319.

42 European Commission (18 July 2003), COM(2003)463 final, Opinion of the Commission pursuant to Article 251 (2), third subparagraph, point (c) of the EC Treaty, on the European Parliament's amendments to the Council's common position regarding the proposal for a Directive of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (Brussels).

in Annex I and II of the Directive) virtually identical to those in the proposal from the Commission. It also outlined a mandatory system, with no explicit loopholes that would allow exempting or adding installations or sectors.

However, a first change was an opening up for a temporary (in the pilot phase) exemption or opt-out of 'certain installations', on specified conditions (Article 27). A second change was the opening up for unilateral inclusion of additional activities ('opt-in') in Article 24. In the pilot phase, member-states were permitted to individually extend the EU ETS to installations below the capacity limits set in the Directive. From 2008, broader possibilities for individual extension were indicated, both to installations below the established capacity limits and not even included in Annex I to the Directive – however, on specified conditions and overseen by the Commission. A third change was the opening up for 'pooling' of installations (Article 28). Member-states could allow operators of installations carrying out one of the relevant activities covered by the Directive to form a group/pool of installations from the same activity, and nominate a trustee to be responsible for surrendering allowances and be subject to possible penalties. Finally, a slight change in relation to the proposal was that three sectors – chemicals, aluminium and transport – were mentioned as specific candidates for future inclusion in the system, to be further discussed in a review report to be submitted to the Commission by 30 June 2006 (Article 30, 2).

As to the issue of *allocation* and allocation mechanism, the Commission basically proposed that allowances should be allocated free of charge, and the June 2006 review was to re-think the allocation method in future commitment periods. The final outcome was a slightly modified version of the Commission proposal, with at least 95 per cent of the allowances to be allocated free of charge prior to 2008 and at least 90 per cent thereafter (Article 10).

With regard to *compliance and enforcement*, as a central element the Commission had proposed a penalty for non-compliance of €50 (or twice the average market price) per ton CO<sub>2</sub> emitted above allocated quantity in the pilot phase, increasing to €100 in the first Kyoto Protocol commitment period. The final outcome was again a slightly modified version of this proposal. Two slight changes can be noted in the formulation of Article 16: the penalty level in the pilot phase was adjusted down to €40; and the possibility of a more flexible alternative penalty level linked to the average market price was removed.

Finally, as to the *external links to the Kyoto flexibility mechanisms*, the Commission proposal merely noted that their eventual inclusion was desirable, but due to uncertainty about the rules of these mechanisms, a separate subsequent linking proposal was suggested. The final outcome supported this basic sequencing of the process. However, Article 30 also contained a certain further specification of the nature of the link, by emphasizing that the use of the mechanisms should be supplemental to domestic action. How the link to the Kyoto mechanisms was further specified in the subsequent Linking Directive is summed up in the next section.

The final political agreement on the EU Emissions Trading Scheme shows that the main shape and content of the proposed directive remained intact through the complicated EU decision-making process. However, it also shows that various

in' and 'opt-out' clauses, pooling, and a reduced penalty level of €40. A core task in Chapter 5 is to examine which actors and institutions affected the final outcome, how they did so, and why.

### *The Linking Directive*

On 23 July 2003, only a day after the Council of Ministers rubber-stamped the main ET Directive, the Commission presented its proposal for a linking directive.<sup>44</sup> As indicated, the objective of this directive was to specify the link between the EU Emissions Trading Scheme and the other two flexible mechanisms born out of the Kyoto Protocol – the JI and the CDM.<sup>45</sup>

There were many reasons why the Commission had omitted the question of linking from its 2001 ET directive proposal. In addition to incomplete international rules for the flexible mechanisms, a perhaps more important reason for not including a link in the ET Directive was that the ETS was intended as a *domestic* measure, and many argued that a link would compromise this intent. Furthermore, it was felt that a link might jeopardize the adoption of an ET directive altogether, because of the very differing views on the project mechanisms (Lefevere 2006, 122). The proposal for a separate linking directive contained the following main features related to cap, timing and restrictions:<sup>46</sup>

- A review of the imports of JI/CDM credits should take place once it reached 6 per cent of the total quantity of member-states allowances. A final cap could be set at 'for example 8%'.
- It was suggested that the Directive should be dependent on the Kyoto Protocol entering into force. This meant waiting until the first Kyoto commitment period (beginning in 2008), before any CDM credits could be actually used.
- Neither sinks (i.e. forestry projects) nor nuclear power should be included as eligible projects. Hydropower was recognized as a legitimate source for projects, as long as such projects took account of 'environmental and social impacts'.<sup>47</sup>

<sup>44</sup> European Commission (23 July 2003), COM (2003)403, Commission Proposal for a Directive of the European Parliament and of the Council amending the Directive establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms (Brussels). Available at <<http://www.climnet.org/pubs/PropDirectiveJICDM.pdf>> accessed 22 May 2007.

<sup>45</sup> It should be noted that an *indirect* link between the ETS and the project mechanisms already existed: During the Kyoto period 2008–12, member-states would be able to buy CDM and JI credits in order to meet their Kyoto commitments. The Linking Directive would, however, provide a *direct* link, allowing *business entities* operating within the ETS to buy such credits themselves (see Lefevere 2006, 129).

<sup>46</sup> Besides the ones listed, the proposal contained other important points as well, such as the issue of avoiding double counting of credits, and the inclusion of 'national project activities'. Space limitations prevent us from taking all these issues into account here.

The proposal, however, gave rise to a storm of protests. On the one side stood industry, wanting minimal restrictions on the linking; on the other stood environmental organizations, fearing that the Linking Directive would leave Third World countries with a bad deal and the globe with a deteriorated climate. Among EU member-states views were varied, leading to lively discussions in the Council and the European Parliament. Main disputes centred on timing, the quantitative cap and the qualitative restrictions. On 5 April 2004, the Parliament's Rapporteur, the Irish Presidency and the Commission reached informal agreement on a compromise package, reflecting a trade-off between the quantitative provisions (the cap) and the qualitative provisions (sinks and hydropower):

- Gone was the stipulated, common cap. Limits would be 'specified by each Member-state' (Article 11a). However, in section 7 of the directive, it was repeated that the use of the mechanisms should be supplemental to domestic action and should also constitute 'a significant element of the effort made'.
- The Directive was no longer dependent on the Kyoto Protocol entering into force, and CDM credits could be used from January 2005 (Section 5).
- Nuclear projects and sinks were excluded only temporarily. Nuclear projects were explicitly excluded in the pilot phase and Kyoto commitment period, leaving it open what would happen thereafter (Article 11a, section 3a). With regard to sinks, their possible inclusion already in the Kyoto commitment period would be reconsidered in 2006 (Section 9). Only with regard to hydro projects was there a clearer regulation than in the original proposal. Hydropower projects with capacity over 20MW would have to comply with the rules set by the World Commission on Dams (Article 11b, section 6).

The Council and Parliament formally adopted the Directive on 27 October 2004.<sup>48</sup> A core question in Chapter 5 will be why and how these significant changes were made in the European Commission's proposal for a linking directive.

establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms (Brussels). Available at <<http://www.climnet.org/pubs/PropDirectiveJICDM.pdf>> accessed 22 May 2007.

<sup>48</sup> European Parliament (27 October 2004), Directive 2004/101/EC of the European Parliament and of the Council of 27 October 2004 amending Directive 2003/87/EC Establishing

### Table 3.1 Main changes in the European Commission's proposals for ET and Linking Directives

Commission proposal for Linking Directive	Links to the Kyoto Protocol
<b>Harmonisation and centralisation of emission caps</b> Decentralized setting of emission caps	– Quantitative cap on imports of JI/CDM credits; – Use of credits only from 2008 – No credits from sinks or nuclear power projects – Large hydro-projects to take social and environmental impact into account
<b>Coverage</b> Start with CO <sub>2</sub> only and four targeted activities Opt-in of additional sectors and activities from 2008 on	<b>Compliance and enforcement</b> Penalty: either €50 (pilot phase) or €100 (Kyoto phase) or twice the average market price – 'whichever is higher'
<b>Allocation</b> Free of charge allocation in pilot phase; next phase to be decided in 2006 review	<b>Compliance and enforcement</b> Penalty: either €50 (pilot phase) or €100 (Kyoto phase) or twice the average market price – 'whichever is higher'
<b>Changes in the final Directive: 2004/101/EC</b> Specification that National Allocation Plans should be consistent with 'Kyoto path' (Annex III) Opening up for opt-out of individual installations in the pilot phase (Art.27) – Unilateral opt-in of additional activities (Art. 24) – Opening up for pooling of installations (Art.28) – Chemicals, aluminium and transport sectors candidates for further inclusion (Art.30, 2)	<b>Changes in the final Directive: 2004/101/EC</b> 2004/101: – No cap, but supplemental to domestic action. Further limits to be specified by each Member-state (Art.11 a) – CDM credits to be used from 2005 on (Section 5) – Sinks and nuclear excluded only temporarily – Large hydro-projects to comply with stricter rules (WCD) (Art.11b, 6)

#### Summary of Changes from Proposals to Directives

Table 3.1 provides a snapshot overview of the relationship between European Commission proposals and the ET Directive (2003/87/EC)<sup>49</sup> and the Linking Directive (2004/101/EC).<sup>50</sup>

#### Implementation: From Directive to Practice

Implementing the Emissions Trading Scheme includes several issues. As summed up by Mullins (2005, 183), key tasks for the member-states include:

- prepare National Allocation Plans (NAPs);
- identify, obtain data from and consult the installations that are covered by the scheme;
- decide on banking, and new entry and closure rules;
- prepare their permitting procedures;
- provide guidance on monitoring and verification and establish the relevant institutions;
- prepare and set up national allowance registries.<sup>51</sup>

All these six tasks are important for the functioning of the EU ETS, but the production of NAPs is the key element from a policy perspective, as it determines the environmental ambitiousness of the system.

#### National Allocation Plans (NAPs)

As noted earlier, one of the main outcomes and features of the EU ETS was a basically decentralized approach to the setting of national emission ceilings (caps). Hence, a key instrument for implementing the EU ETS became the production of National Allocation Plans, starting on 25 June 2003, when political agreement was obtained on the ET Directive. This Directive contained many important NAP principles and signals – particularly Annex III, with 11 guidance points and criteria for the development of NAPs:

<sup>49</sup> European Parliament (25 October 2003), Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 Establishing a Scheme for Greenhouse Gas Emission Allowance Trading within the Community and Amending Council Directive 96/61/EC, *Official Journal of the European Union* L 275, 32–46.

<sup>50</sup> European Parliament (13 November 2004), Directive 2004/101/EC of the European Parliament and of the Council of 27 October 2004 Amending Directive 2003/87/EC Establishing a Scheme for Greenhouse Gas Emission Allowance Trading within the Community, in Respect of the Kyoto Protocol's Project Mechanisms, *Official Journal of the European Union* L 338, 18–23.



1. consistency between total quantity of allowances and the member-states' commitments under the Kyoto Protocol;
2. consistency between quantity of allowances and assessments of emissions development;
3. consistency between quantity of allowances and potential to reduce emissions;
4. consistency with other Community legislative and policy instruments;
5. non-discrimination between companies or sectors;
6. information on the treatment of new entrants;
7. information on how early action would be taken into account;
8. information on how clean technology would be taken into account;
9. information on how the public would be involved;
10. list of installations and their respective allowances;
11. how competition from outside the EU would be taken into account.

Furthermore, Article 9 established an assessment procedure where submitted NAPs were to be scrutinized by the European Commission. The right to not approve parts or the whole of the NAP plans was established for cases where these were found to be not in line with the ET Directive or the Treaty.

Inevitably, these criteria were couched in quite general terms, and the need arose for a more specific guidance document. In early January 2004, the Commission published a Communication aimed at clarifying the criteria.<sup>52</sup> Among other things, this document specified that four of the 11 criteria were to be considered as mandatory (assessments of emissions development; non-discrimination; public involvement; and list of installations). Three criteria were in a grey zone, involving a mandatory element (consistency with Kyoto; potential to reduce emissions; and consistency with other legislation). Finally, there were four optional criteria (new entrants; early action; clean technology; and outside competition).<sup>53</sup> As indicated in Chapter 2, within these numerous implementation criteria, the most important and overriding goal was that implementation should be ambitious. We will also assess timeliness, for reasons to be specified below. Let us then briefly elaborate these two goals.

#### *Timeliness and Ambitiousness*

*Timeliness* was important not only in order to get the market going and deliver emission reductions: it was also politically important to demonstrate the realism in the EU's declared ambitions of leadership in global climate diplomacy – to show progress by 2005 in accordance with the Kyoto Protocol (Wettestad 2005). On a more pragmatic note, within this complex multi-level, multi-issue and multi-state

<sup>52</sup> European Commission (7 January 2004), COM(2003)830 final, Communication from the Commission on Guidance to Assist Member States in the Implementation of the Criteria Listed in Annex III to Directive 2003/87/EC (Brussels).

<sup>53</sup> The Communication stated that '<the Member State> can choose whether it wants to

subject matter, this criterion is fairly simple to measure. With regard to preparation of NAPs for the EU ETS pilot phase (2005–07), the formal deadlines were 31 March 2004, for the old EU-15; and 1 May 2004, for the new EU-10 – that is, the Central and Eastern European Countries (CEECs), as well as Malta and Cyprus. Moreover, the installation-level allocation was to be determined at least three months before the beginning of the first period (in other words, before October 2004).<sup>54</sup> The deadline for all countries for preparing the NAPs for the second phase of the EU ETS (the Kyoto commitment phase, 2008–12) was 30 June 2006.

The criterion of *ambitiousness* is clearly the most important from an environmental perspective. Unless emission caps can be set far enough below the business-as-usual needs of industries to lead to a scarcity of allowances (and hence drive allowance prices high and stable enough to warrant investments in abatement efforts), the overall objective of the emissions trading scheme – to promote reductions of greenhouse gas emissions – will simply not be met.<sup>55</sup> However, measuring the ambitiousness of the implementation in the NAP context is no straightforward task. At least three important points must be kept in mind.

First, the EU ETS covers around 45 per cent of EU CO<sub>2</sub> emissions: the focus is on relatively large installations within certain sectors, and includes the important power and heat sector. The Kyoto Protocol and the EU's commitment within the Kyoto framework cover six main greenhouse gases and most societal sectors (but not, for example, aviation). Hence the real and full climate policy ambitiousness and performance of the EU countries is to a considerable extent determined by their efforts in relation to sectors and gases *not* covered by the ETS. Second, EU countries vary with respect to both the targets agreed on within the EU Burden-sharing Agreement and their progress so far in relation to these targets. Hence, the *need* for governments to squeeze the part of industry covered by the ETS varies between the countries. Third, the basically decentralized ETS approach and the related flexibility in the guidelines for developing NAPs mean that countries have chosen and utilized somewhat differing baselines, and have treated issues such as new entrants in differing ways (see for example CEPS 2005), further complicating inter-country comparisons.

With regard to the pilot phase, there were prescriptions for a certain ambitiousness in the setting of total emission caps. As indicated, the ET Directive and the Commission's 2004 guidelines prescribed several criteria for the overriding goal of ambitiousness – most importantly that the allocation was to be consistent with a path to the Kyoto target, and the total quantity of allowances to be allocated should not be more than necessary in view of projected emissions. Of these two, we will argue that the relationship between the total cap and projected emissions would be the central indicator of whether pilot-phase NAPs should be considered ambitious, as this would indicate the actual emission reductions to result from implementation of the EU ETS.

With regard to the NAPs for the second ETS phase (2008–12), in its Communication published in late December 2005 the Commission indicated that if

<sup>54</sup> The October 2004 deadline was stated in Article 11 in the 2003 ET Directive.

the emissions trading sector were to contribute a proportionate share of the reduction needed in member-states with a gap to close in order to reach the Kyoto target, then the overall cap for the second phase should be 6 per cent lower than in the pilot phase.<sup>56</sup> Allocations to any member-states that were off-track from their Kyoto target in comparison with actual 2003 emissions should be further tightened.<sup>57</sup>

With regard to the latter, and as an additional criterion that did not apply in the first phase, member-states were required to specify a maximum amount of intended government purchase of Kyoto units. Described by the Commission as criterion 12 in Annex III of the ET Directive (although the Directive initially contained only 11 criteria), the established percentage should be consistent with the state's supplementarity obligations under the Kyoto Protocol and decisions adopted pursuant to the UNFCCC or the Kyoto Protocol.<sup>58</sup> This was further specified in the Communication accompanying the first round of Commission NAP II decisions in late November 2006.<sup>59</sup>

To determine the more specific required reduction, the proportion of the overall emissions represented by the trading scheme was relevant 'in comparison with emissions from sources not covered by the Directive'.<sup>60</sup> As a minimum threshold, installations should be allowed to use JI/CDM credits up to a level of 10 per cent. The practical implications of all these elements were then summed up in specific formulas.<sup>61</sup>

Furthermore, as further elaborated later in this chapter, the first verified ETS emission figures, summing up 2005 emissions, were put on the table in May 2006. The publication of these figures changed the NAP II process somewhat. In November 2006, it became clear that in addition to the earlier announced criteria, also the 2005 emission data would figure as a central assessment criterion. Hence, the 29 November press release stated that the Commission would be requiring changes

56 European Commission (22 December 2005), COM(2005)703 Final, Communication from the Commission: Further Guidance on Allocation Plans for the 2008 to 2012 Trading Period of the EU Emissions Trading Scheme (Brussels), 6.

57 These states should aim for a balanced mix between lowered allocation for second phase; implementing additional measures in the non-trading sector; and 'potentially supplemented' by government purchase of Kyoto unit credits (Ibid., 6).

58 Ibid., 7.

59 A key statement was here: where a Member-state with a remaining gap to close between its actual emissions and allowed emissions according to the Kyoto target does not substantiate or insufficiently substantiates the intended government purchase of Kyoto units this contravenes criterion 1 (setting a cap consistent with each Member-state's Kyoto Protocol commitment), and as a consequence the intended total quantity of allowances is reduced proportionally. European Commission (29 November 2006), COM(2006)725 final, Communication from the Commission to the Council and to the European Parliament on the Assessment of National Allocation Plans for the Allocation of Greenhouse Gas Emission Allowances in the Second Period of the EU Emissions Trading Scheme, Accompanying Commission Decisions of 29 November 2006 on the National Allocation Plans of Germany, Greece, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia, Sweden and the United Kingdom in Accordance with Directive 2003/87 (Brussels), 7.

to NAPs where 'the proposed total of allowances is not consistent with expected emissions and the technological potential to reduce emissions, *taking into account independently verified emissions in 2005*, anticipated changes in economic growth and carbon intensity' (our italics).<sup>62</sup> Hence, the Commission had now explicitly spelled out its procedure and 'formula' for NAP II assessments, in fact drawing upon only very limited information from the submitted NAPs (primarily related to additional installations).<sup>63</sup> This meant that the Commission, quietly and almost unnoticed, had introduced a more centralized model for the setting of caps.

Let us then sum up some main outcomes of the first two EU NAP processes, assessing them in relation to timeliness and, especially the key dimension of ambitiousness. We will seek to provide both a rough overview of the complete picture as to implementation outcomes, while also drawing attention to some interesting national variations.

#### *Producing NAPs for 2005-07 (NAP I)*

*Timeliness: many delays, but still variation* As mentioned, there were three main deadlines in 2004: 31 March for EU-15; 1 May for the new EU-10; and 1 October for all (the installation-level allocation). The UK started strong and published its draft NAP as early as 19 January 2004,<sup>64</sup> but nevertheless failed to meet the 31 March deadline for the EU-15 countries. Only five countries met the deadline (Austria, Denmark, Finland, Germany and Ireland), which meant that two out of three missed the deadline.<sup>65</sup> Only Slovenia met the 1 May deadline for the new members.<sup>66</sup> At this point, three more countries from the EU-15 had delivered (Luxembourg, the Netherlands and Sweden), bringing the total to eight – which, however, meant that almost half of the plans were still missing.<sup>67</sup>

By mid-June, the NAP process was said to be 'grinding to a halt'.<sup>68</sup> Although the UK had finally submitted its NAP to Brussels (raising the total number of 'old-timer' NAPs to nine), Spain and two others still had not published their drafts, two and a half months after the deadline. Of the new members, Estonia and Latvia had joined the submitter group, so half of the CEECs had formally delivered. Big-emitter Poland

62 Ibid.

63 The formula is: 2005 verified emissions \* growth trend development 2005 to 2010 \* carbon intensity trend development 2005 to 2010 \* additional emissions covered by an extended scope of combustion installations. Ibid., 5.

64 *ENDS Daily* (19 January 2004), 'UK Takes Pole Position in EU Carbon Trading Race', Issue 1590.

65 *EU Energy* (9 April 2004), 'Two Out of Three Miss Emissions Allocation Plan Deadline', Issue 80, 1.

66 *EU Energy* (7 May 2004), 'Slovenia Only New EU Member to Meet NAP Deadline', Issue 82, 1.

67 *International Environment Reporter* (5 May 2004), 'EU Countries Face Liability for Delay in Submitting Emissions Trading Plans', 27:9, 343.

was lagging behind, not even having published a draft at this point.<sup>69</sup> This meant that plans from only eight countries were included in the Commission's first NAP verdict round in early July: Austria, Denmark, Germany, Ireland, the Netherlands, Slovenia, Sweden and the UK. All plans were approved, albeit only conditionally for Austria, Germany and the UK.

The third main deadline in this process was 1 October 2004, when installation-level allocations were to be completed. Several prominent member-states failed to meet this deadline – Germany, for instance, did not publish its full installation-level NAP until January 2005. The Czech Republic, Hungary, Italy, Poland, and Spain were also delayed with their detailed installation-level NAPs.<sup>70</sup> Here, however, the UK was a notable exception, publishing its installation-level NAP already in July 2004.

In sum, there were significant delays among both old and new EU member-states, but with some variations. Germany and the UK performed reasonably well (although the European Commission's requests for adjustments prolonged the processes). Spain must be put down as a clear laggard. Within the group of new member-states, big emitters like the Czech Republic and Poland were also considerably delayed, with Poland as perhaps worst offender within the EU.

*Ambitiousness: murky, but on the low side* As a starting point, we will sum up some main conclusions from several independent NAP ambitiousness assessment efforts.<sup>71</sup> On the whole, none of these reports was particularly impressed by the ambitiousness of the pilot-phase NAPs.

As early as August 2004, a Swedish research group at the IVL institute, led by Lars Zetterberg, analysed 12 NAPs<sup>72</sup> and concluded:

*generally most countries have allocated generously to the trading sector. The allocation has often been based on future needs. For most sectors the allocation is higher than current emissions. Many countries will have to make large reductions in the non-trading sector and/or buy credits through JI and CDM projects in order to fulfill their commitments according to the EU burden-sharing agreement of the Kyoto Protocol. In many of the allocation plans the emission reducing measures in the non-trading sector is poorly described and the credibility of the measures are hard to determine'* (Zetterberg et al., 2004, 1; emphasis added).

The NAP assessment report produced by the German Ecofys institute was also published in August 2004. Although with some exception the set caps were assessed to be below expected business-as-usual (BAU) emissions, *'the caps imposed on the*

*EU ETS participants are less strict than would be required if these sectors were to make an equal contribution to meeting Kyoto as other sectors, or if no use of the Kyoto mechanism was envisaged'* (Ecofys, 2004, iv; emphasis added). Furthermore, eight out of 18 countries had not provided sufficient information in their NAPs to assess the cap and compare it with business-as-usual developments, making it *'difficult to draw firm conclusions about the environmental additionality of the EU ETS'* (Ibid.).<sup>73</sup>

Published about a year later, the assessment carried out by a group of British researchers led by Michael Grubb compared the total pilot-phase allocations against historical emissions, projections, and national Kyoto targets, and noted that *'most Phase 1 allocations are excessive on all these measures, particularly the last'* (Grubb et al., 2005, 127). Compared to recent emissions, only Germany and Slovenia had not allocated more than they were currently emitting. Compared to official BAU projections, many allocations were in line with or almost as high as BAU projections. Compared to Kyoto targets, in contrast to a perceived necessary cut of about 3 per cent, there was an increase of 3 to 9 per cent allocated for 2005–07 (ibid., 128–129). So Grubb et al. ended up by concluding that *'even if the BAU projections are taken at face value, the collective picture is one of weak allocations'* (ibid., 130; emphasis added).

The most recent pilot phase NAP assessment of which we are aware was published by Climate Action Network Europe in April 2006. Here it was noted that of 25 countries, only Germany and the United Kingdom had asked the participating industry sectors to reduce their emissions over historic levels (based on the information provided for respective base years, mainly 2000–2002). Hence, the main conclusion here echoed the earlier critical assessments: *'considering that around half of the EU-25 countries are not on track to meet their Kyoto Protocol emission targets, such lax implementation of the ETS is a major disappointment and a worrying precedence for 2008–12'* (emphasis added).<sup>74</sup>

In sum, although these assessment reports vary somewhat with regard to approach, methodology and fine-print conclusions, they basically agree on an overall low ambitiousness score for the pilot-phase NAPs, regardless of whether these are judged on past emissions, future projections, or distance to Kyoto targets. With regard to top EU emitters more specifically, Germany, Spain and the UK seemed to come out moderately well. Due to its delayed and drawn-out process, Poland was not included in the IVL and Ecofys assessments, but was indicated as having a comparatively weak cap in the two later assessments.

Table 3.2 displays the allocation data for the first trading period, showing the relative contribution to the scheme among member-states.

<sup>69</sup> Ibid.

<sup>70</sup> However, the Czech Republic, Hungary, Poland and Spain delivered in the course of October.

<sup>71</sup> Zetterberg et al., 2004; Grubb et al., 2005; CAN (2006), 'National Allocation Plans 2005-7: Do They Deliver?', *CAN Europe*, April; Ecofys (August 2004), *Analysis of the National Allocation Plans for the EU Emissions Trading Scheme* (Utrecht, NL: Ecofys).

<sup>72</sup> The NAPs assessed were those of Austria, Denmark, Finland, Germany, Ireland,

<sup>73</sup> The NAPs assessed in this report were those of Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Ireland, Latvia, Lithuania, Luxembourg, the Netherlands, Portugal, Slovenia, Spain, Sweden, and the United Kingdom.

Table 3.2 Distribution of allowances under the ETS 2005–07

	CO <sub>2</sub> allowances in million tonnes	Share in EU allowances (%)	Installations covered
Germany	1497.0	22.8	1849
UK	736.0	11.2	1078
Poland	717.7	10.9	1166
Italy	697.5	10.6	1240
Spain	523.7	8.0	927
France	469.5	7.1	1172
Czech Republic	292.8	4.4	435
Netherlands	285.9	4.3	333
Greece	223.2	3.4	141
Belgium	188.8	2.9	363
Finland	136.5	2.1	535
Portugal	114.5	1.7	239
Denmark	100.5	1.5	378
Austria	99.0	1.5	205
Hungary	93.8	1.4	261
Slovakia	91.5	1.4	209
Sweden	68.7	1.1	499
Ireland	67.0	1.0	143
Estonia	56.8	0.9	43
Lithuania	36.8	0.6	93
Slovenia	26.3	0.4	98
Latvia	13.7	0.2	95
Luxembourg	10.0	0.2	19
Total	6572.7	100.0	11,536

Source: Based on Delbeke (2006, 8–9).

When the first verified EU ETS emission figures (for 2005) were announced in mid-May 2006, it was tempting to interpret these figures as further confirmation that the ambitiousness in this round was rather low.<sup>75</sup> In essence, CO<sub>2</sub> emissions were about 80 million tonnes or 4 per cent lower than the number of allowances distributed to installations in order to cover 2005 emissions. Seventeen countries were on the ‘long side’ (with more permits than needed), with Lithuania topping the list and around 50 per cent long, and four countries around 25 per cent long (Denmark, Estonia, Finland and Latvia). The important emitters Germany and Poland were respectively 4.2 per cent and 12.8 per cent long. Only five countries were on the ‘short side’: Greece (–0.2 per cent), Italy (–4.4 per cent), Spain (–6.3 per cent), Ireland (–16.4

Table 3.3 NAP I 2005 allocations and verified emissions

	Allocation 2005 Mt CO <sub>2</sub>	Emissions 2005 Mt CO <sub>2</sub>	Difference Mt CO <sub>2</sub>	Difference percentage (%)
Germany	495.0	474.0	20.9	4.2
Poland	235.6	205.4	30.1	12.8
Italy	215.8	225.3	–9.5	–4.4
UK	206.0	242.5	–36.4	–17.7
Spain	172.1	182.9	–10.8	–6.3
France	150.4	131.3	19.1	12.7
Czech Republic	96.9	82.5	14.5	14.9
Netherlands	86.5	80.4	6.1	7.1
Greece	71.1	71.3	–0.1	–0.2
Belgium	58.3	55.4	3.0	5.1
Finland	44.7	33.1	11.6	25.9
Denmark	37.3	26.5	10.8	29.0
Portugal	36.9	36.4	0.5	1.3
Austria	32.4	33.4	–1.0	–3.0
Slovakia	30.5	25.2	5.2	17.2
Hungary	30.2	26.0	4.2	13.9
Sweden	22.3	19.3	3.0	13.3
Ireland	19.2	22.4	–3.2	–16.4
Estonia	16.7	12.6	4.1	24.6
Lithuania	13.5	6.6	6.9	51.1
Slovenia	9.1	8.7	0.4	4.6
Latvia	4.1	2.9	1.2	29.9
Luxembourg	3.2	2.6	0.6	19.4
Total	2087.9	2006.6	81.3	3.9

Source: Ellerman and Buchner (2006, 3).

per cent), and the UK (–17.7 per cent) (Ellerman and Buchner 2006). The complete picture is presented in Table 3.3.

There is a somewhat complex and indirect relationship between NAP ambitiousness and these figures. As noted by Ellerman and Buchner (2006, 10), a ‘short’ position could be due to higher levels of economic activity than predicted, or other unexpected events (for example, high natural gas prices), so the basic NAP approach of the government in question could still be sound. For example in the case the UK, one reason that has been indicated for the UK’s ‘short’ position in 2005 is a shift to greater use of coal for power generation as gas prices have risen while coal prices have been static or falling.<sup>76</sup> Hence, despite this complexity, the emissions figures further strengthened suspicions of Poland’s rather lenient approach to handing out allowances, in contrast to a seemingly more sound and sobering British approach.

<sup>75</sup> Ellerman and Buchner, 2006: European Commission (15 May 2006), IP/06/612,

The publication of these data also sent shock waves into the until then surprisingly floundering allowance trading market, leading to a steep price drop for allowances in the pilot phase – from a top level of around €30 per tonne CO<sub>2</sub> in late April 2006 down to around €12 in early May and further down in the spring of 2007, hitting a low point at €0.5 in the end of April. We will come back to possible explanations for this ‘over-allocation’, related lacking scarcity in the market, and apparently low, but varying ambitiousness in Chapter 6.

#### *Producing NAPs for 2008-12 (NAP II)*

The deadline for all member-states for preparation of NAPs for the second phase of the EU ETS was 30 June 2006. However, by this date only two NAPs had been delivered to the Commission: those of Estonia and Germany.<sup>77</sup> By mid-July, four additional NAPs had been submitted: from Ireland, Lithuania, Luxembourg and (interestingly, in light of its NAP I lateness) Poland.<sup>78</sup> In the beginning of August, the Commission then sent letters of formal notification to 15 states that had failed to submit NAPs.<sup>79</sup> After that, more NAPs gradually trickled in, including the British one in late August. However, by the end of October 2006, four months after the deadline, 10 NAPs were still lacking, including those from the Czech Republic, Italy and Spain.

With regard to the crucial issue of ambitiousness, the overall picture at this point was not encouraging. On 22 October, EU environment commissioner Stavros Dimas noted that ‘much to my regret, taking the first 17 notified national allocation plans, they propose a cap about 15 per cent above actual emissions in 2005’.<sup>80</sup> This statement also made it clear that the Commission would use the verified 2005 emissions data as a key measuring rod in assessing the NAPs. Several independent assessments also painted a rather bleak picture. A study carried out by *Climate Strategies* concluded that ‘if currently proposed phase II NAPs were approved, prices would tend to be very low and only small volumes of CDM/JI would enter the EU ETS’. Taking no account of CDM/JI, there was a 15 per cent chance that the price of carbon would fall to zero, this chance increasing considerably with higher levels of CDM/JI inflows (Neuhoff et al. 2006, 2).

This message was supported by the Ecofys institute. Based on an assessment of proposed NAPs, Ecofys Director of Energy and Climate Strategies stated:

if the European Commission follows the Member States’ proposals, we don’t expect to see a shortage of allowances in the market in the second phase. The market would rather

<sup>77</sup> *EU Energy* (14 July 2006), ‘NAP2 Revealed: EUAs Capped at 482 mil mt/year’, Issue 137, 22.

<sup>78</sup> *ENDS Daily* (18 July 2006), ‘EU Emission Trading Plans Trickle In Slowly’, Issue 2140.

<sup>79</sup> *Point Carbon* (4 August 2006), ‘NAP Watch and Carbon Politics’, *Point Carbon, Carbon Market Europe*, 3. Formal notice is the first stage in the EU’s infringement procedure.

be long than short, especially taking into account the additional supply of project-based emission credits from the Clean Development Mechanism and Joint implementation. The market will only work properly if the caps are tightened, giving a clear price signal which will stimulate emission reductions within the EU’ (Ecofys 2006).<sup>81</sup>

Furthermore, on the basis of a study carried out by Ecofys, the World Wide Fund for Nature (WWF) warned that member-states were indeed aiming to allow much more credits from JI and CDM projects into the EU Emissions Trading Scheme. This, in combination with lax caps on emissions, would discourage European companies from reducing their own emissions and could cause the price of carbon to collapse.<sup>82</sup> This basically gloomy message was further supported by a study published in November 2006 by the Fraunhofer/ISI research group (Rogge et al. 2006).

However, there was variation among states. As the main exception to the gloomy picture summed up above, the UK plan was lauded as good and pioneering. According to an analysis carried out by Point Carbon, the UK had set a strict cap, considerably lower than what it could have got away with in relation to Commission guidelines. Hence, the UK was ‘leading the way again, ensuring that the CO<sub>2</sub> market continues to function’.<sup>83</sup> Moreover, the plans from Italy and Spain were hailed by independent experts as being relatively ambitious;<sup>84</sup> referring to a study by the Carbon Trust. But most other plans were criticized for being overly generous, including those of Germany and France.<sup>85</sup> Furthermore, with regard to the new member-states, it was claimed that Poland aimed for an allocation 34 per cent over the 2005 level, while other CEECs such as the Baltic states seemed to go for allocations even higher than that (some 80 per cent over 2005 levels).<sup>86</sup>

Hence, when the Commission’s first NAP II assessment of ten plans was published on 29 November, it did not come as a total surprise that only the UK plan was unconditionally accepted. All the other plans were modified (Germany, Greece, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia, and Sweden), mainly with reduced caps, as shown in Table 3.4 below.

In particular, it should be noted that although Germany just prior to the Commission’s ‘verdict’ had unilaterally adjusted its cap down to 465 million tonnes CO<sub>2</sub>, the Commission adjusted its cap further down to 453 million tonnes CO<sub>2</sub>. Germany then responded by increasing its planned use of CDM from 12 per cent up to 20 per cent.

<sup>81</sup> Ecofys (27 November 2006), ‘Market risks becoming long’, Press release.

<sup>82</sup> WWF (2006), ‘Use of CDM/JI Project Credits by Participants in Phase II of the EU Emissions Trading Scheme – A WWF Summary of the ECOFYS UK Report’, November. (UK: WWF); *ENDS Report* (October 2006), ‘Excess Credits Threaten EU ETS, says WWF’, No. 381, 13.

<sup>83</sup> *Point Carbon* (30 October 2006), ‘Point Carbon Expects the EC to Slash 240 million Allowances per year Off NAPs’.

<sup>84</sup> Reuters/Planetark (11 November 2006), ‘EU’s Dimas Challenges States on Emissions Plans’.

<sup>85</sup> *Ibid.*

**Table 3.4** NAP II, outcome of first Commission assessment end November 2006 (all figures in million tonnes of CO<sub>2</sub>)

	Cap 2005–07	2005 verified emissions	Proposed cap 2008–12	Allowed cap 2008–12	Commission's cut (%)
Germany	499	474	482	453.1	6
Greece	74.4	71.3	75.5	69.1	8
Ireland	22.3	22.4	22.6	21.15	7
Latvia	4.6	2.9	7.7	3.3	57
Lithuania	12.3	6.6	16.6	8.8	47
Luxembourg	3.4	2.6	3.95	2.7	32
Malta	2.9	1.98	2.96	2.1	29
Slovakia	30.5	25.2	41.3	30.9	25
Sweden	22.9	19.3	25.2	22.8	10
UK	245.3	242.4	246.2	246.2	0

Source: Euractiv 4 December 2006.

**Table 3.5** NAP II CDM/JI limits, outcome of first Commission assessment end November 2006

	Proposed CDM/JI limit (%)	Allowed CDM/JI limit (%)
Germany	20	20
Greece	9	9
Ireland	50	22
Latvia	5	5
Lithuania	9	9
Luxembourg	10	10
Malta	Not announced	–
Slovakia	7	7
Sweden	20	10
UK	8	8

Source: PCA (2007).

By end of April 2007, the European Commission had assessed nine more plans. France, and Slovenia joined the UK in getting their caps accepted at first try, and the Spanish cap was cut only very marginally. The Austrian, Belgian and Dutch plans had their caps adjusted down by 5–7 per cent, whereas the Czech, Hungarian and Polish plans were cut more severely. Hungary's NAP was cut by 12.4 per cent, the Czech NAP by 14.8 per cent, and (importantly) the Polish NAP by a formidable 26.7 per cent! Furthermore, several countries had their plans for the use of the Kyoto Protocol's flexible mechanisms scaled down markedly (for example, Poland: from

25 per cent to 10 per cent; Spain: from 39 per cent to 20 per cent). These latter rounds of NAP II assessments are summed up in Table 3.6.

**Table 3.6** NAP II, outcome of second batch of Commission assessments, end April 2007 (all figures in million tonnes of CO<sub>2</sub>)

	Cap 2005–7	Verified Emissions 2005	Proposed cap 2008–12	Allowed cap 2008–12	Commission's cut (%)
Austria	33.0	33.4	32.8	30.7	6
Belgium	58.3	55.4	63.3	58.5	8
Czech Republic	97.6	82.5	101.9	86.8	15
France	156.5	131.3	132.8	132.8	0
Hungary	31.3	26.0	30.7	26.9	12
Netherlands	95.3	80.3	90.4	85.8	5
Poland	239.1	203.1	284.6	208.5	27
Slovenia	8.8	8.7	8.3	8.3	0
Spain	174.4	182.9	152.7	152.3	0

Source: European Commission (16 April 2007), IP/07/501, Emission Trading: Commission Adopts Decision on Hungary's National Allocation Plan for 2008-2012 (press release).

**Table 3.7** NAP II CDM/JI limits, outcome of second batch of Commission assessments, end April 2007

	Proposed CDM/JI limit (%)	Allowed CDM/JI limit (%)
Austria	20	10
Belgium	7–8	7–8
Czech Republic	10	10
France	13	13
Hungary	10	10
Netherlands	12	10
Poland	25	10
Slovenia	18	16
Spain	47	20

Source: PCA (2007).

### Concluding Comments

The first allocation round of the first EU Emissions Trading Scheme NAP process has been characterized overall as having gone 'remarkably well' (Vis 2006b, 212). This assessment should be seen in light of the formidable challenge facing the EIT

system in the field of the environment. The initial 'construction' challenge in the pilot phase was huge, with limited availability of data, not least about the emissions of large installations (Vis 2006b, 187). Furthermore, allowance prices were initially higher than expected. The market also initially seemed to have survived the major price crash of April/May 2006, following the above-mentioned publication of 2005 verified emissions below total allowances (although allowance prices in the pilot phase have dipped to a very low level indeed).

Without ignoring this 'institutional success in light of formidable challenge' perspective, as indicated, we will nevertheless offer a generally more restrained assessment of implementation, not least because of the quite moderate achievements with regard to ambitiousness in NAP I. Also the Commission itself has not been satisfied with the first NAP process in this respect and is currently fighting to beef up the NAPs for the Kyoto commitment phase.<sup>87</sup> By end of April 2007, 19 NAP II plans had been assessed by the Commission, with all but four plans cut (France, Slovenia, Spain and the UK) by around 9 per cent. Furthermore, the Commission has cut several CDM plans, for instance more than halving the plans of Spain and Poland. It is also clear that the implementation process has been marked by significant delays. However, within this overall picture of moderate implementation success, there are significant variations in national performances to date. In the following, we will focus on four countries that represent a spectrum of variations in implementation performance and geographical location.

- *The UK – frontrunner:* When NAP I and II are viewed in combination, the UK stands out as the main EU ETS implementation frontrunner. It was among the comparatively more ambitious in NAP I, and, when 2005 emissions were put on the table, it also emerged as one of the few countries that had not handed out more allowances than the ETS industries needed (it had 'under-allocated'). Not only has the UK been able to meet the deadlines quite well, its plan was the only one (out of the ten first assessed) to be unconditionally accepted in the first Commission NAP II 'verdict'.
- *Germany – reluctant:* Germany is of key ETS importance and interest: it is the biggest EU emitter, and accounts for almost 25 per cent of total allowances. The country has been generally on time, and lies somewhere in the middle with regard to comparative ambitiousness. Figures on 2005 emissions showed that Germany had handed out slightly more allowances than the ETS industries needed (hence a slight 'over-allocation' in NAP I). In NAP II, Germany has seen its proposed NAP II cap rejected and adjusted considerably down by the Commission. However, not unlike the case with NAP I, Germany quarrelled with the Commission and has embraced the ETS only very reluctantly.

<sup>87</sup> In the 2005 NAP II Communication, it is for instance noted that 'the EU ETS needs to be used more to fully realize the potential of emissions trading'. European Commission (22 December 2005), COM(2005)703 Final, Communication from the Commission: Further

- *Spain – improving laggard:* Spain was initially very delayed in NAP I, but speeded up significantly from late spring 2004 and ended up with comparatively acceptable NAP. When figures for 2005 emissions were announced, Spain proved to be among the few countries that had not handed out more allowances than the ETS industries needed (hence on the 'under-allocation' side), further confirming a certain NAP I soberness. Spain's NAP II has been favourably received and (as was also the case with France, Slovenia and the UK only) its cap was accepted by the Commission at first try.
- *Poland – laggard:* It is hard to escape the conclusion that Poland figures centrally among ETS implementation laggards so far. It was seriously delayed in NAP I, and its cap showed comparatively little ambition. When 2005 figures were announced, Poland was found to be among the group of countries which had been most liberal in handing out allowances to the ETS industry (emerging as a clear 'over-allocator'). Although the country has been on time as regards NAP II, its ambitiousness has again been seriously questioned. This was confirmed in late March 2007, when the Commission cut Poland's suggested NAP II by not less than 27 per cent (down from 284.6 million allowances to 208.5).

In Chapter 6, we discuss further the variations in implementation, explain why implementation varies, and why there have been implementation problems in general.

## Conclusion

In this chapter, we have focused on the development of what emerged as the EU Emissions Trading Scheme in light of the EU opposition to emissions trading during the Kyoto negotiations in 1997. We have distinguished between the initiation, decision-making and implementation phases of this system. In the initiation phase, the first positive signals about emissions trading came from the Commission shortly after the Kyoto Protocol, in late spring 1998. The idea of an EU-internal pilot ETS was launched already in the June 1998 Communication on an EU post-Kyoto strategy. Discussions were taken a bit further in the May 1999 Communication on preparing for implementation of the Kyoto Protocol. This Communication launched the idea of a system with basically narrow initial coverage, targeting large emitters or a single economic sector and only CO<sub>2</sub> (the most measurable gas). Issues of harmonization and degree of centralized control were mentioned in only very general terms.

These issues were then taken a significant step further in the March 2000 ETS Green Paper. Here, the Commission made a plea for a basically centralized and hence harmonized system for determining the crucially important emission ceilings/caps within the system, emphasizing the substantial institutional challenges that a more decentralized approach would entail. The Commission also argued in favour of auctioning as the preferred method of allocating allowances. The suggested coverage of the system was in line with the 1999 Communication, singling out six sectors, of

The decision-making phase was launched with the drafting and presentation of the Commission's proposal for an ET directive in October 2001. This proposal revealed two significant changes from the Green Paper: first, a decentralized approach was proposed, giving the member-states significant discretion concerning the total allocation of allowances. This meant that individual NAPs would determine the individual and collective reduction ambition of the system. Second, allowances were to be allocated for free. With regard to coverage, the proposal mainly followed the Green Paper, but the chemical sector was excluded. The proposal also suggested a penalty for non-compliance in line with the Green Paper. Only modest changes were made to this proposal through the EU decision-making process. The most important were more constraints on the allocation of allowances, greater flexibility in coverage/participation in the pilot phase, and an opening for some auctioning in the allocation of allowances. In July 2003, the Commission also proposed a directive linking the EU ETS to the flexible mechanisms under the Kyoto Protocol. This proposal was changed to allow more use of JI/CDM credits by relaxing the quantitative cap, the restriction on when to use them, as well as which projects would qualify. Greater use of such credits would reduce the costs of compliance with the Kyoto commitments but would decrease the pressure to take action within the EU.

In the last section, we offered an assessment of the implementation of the EU ETS so far. Bearing in mind all the significant challenges a new emissions trading system has to cope with, we concluded that achievements have been only moderate as yet. The major criterion underlying this assessment is the low degree of ambitiousness in terms of drawing up national allocation plans for the reduction of CO<sub>2</sub> in the pilot phase. This is an assessment shared by the Commission, which was not satisfied with the first NAP process in this respect, and is currently trying to beef up the NAPs for the Kyoto commitment phase – apparently with substantially more success than in the pilot phase. In addition, there have been significant delays in applying the implementation steering signals and guidelines specified in the ETS Directive and several Communications from the Commission. This picture of generally moderate implementation success includes significant variations in national performance to date – to which we return in Chapter 6.

## Chapter 4

# Initiating EU Emissions Trading

The previous chapter presented the main outcomes of the EU Emissions Trading Scheme in the phases of policy initiation, decision-making and implementation. In this chapter we narrow in on the policy initiation phase, from the 1997 Kyoto Protocol to the publication of, and responses to, the Green Paper in 2000. Our main question here concerns how and why the idea of an EU ETS was initiated and developed within the EU, given its initial scepticism to including emission trading in the Kyoto Protocol. Why did the EU initiate internal emissions trading shortly after it had opposed emissions trading internationally?

As noted in Chapter 2, we will assess three propositions derived from three explanatory perspectives. The first proposition focuses on the positions of the EU member-states. It is based on the broader approach of intergovernmentalism, and holds that the EU ETS evolved due to a change in the positions of the member-states. The European Commission, which formally initiates new EU legislation, acted on a request from member-states and anticipated broad-based support. Our second proposition focuses on EU institutions and non-state actors at the Community level, with multi-level governance as the broader theoretical approach. It holds that the EU ETS evolved due to a change in the position of the European Commission, which acted independently of the member-states, facilitated by support from affected non-state actors. While these propositions focus on factors internal to the EU, the third proposition takes us to the international context. This proposition is based on the international regime approach and states that the EU ETS evolved as a response to the international climate regime – the UNFCCC and the Kyoto Protocol.

As emissions trading was a central part of the negotiations leading up to the 1997 Kyoto Protocol, we will start the analysis with the climate regime and the EU ETS. We then analyse the role of the European Commission and non-state actors. Finally, we narrow in on the development in the positions of the EU member-states.

### Impact of the International Climate Regime

To what extent and how did the climate regime affect the initiation of EU ETS? More specifically, how did it affect the evolution of the idea of emissions trading, the timetable for developing EU ETS, and the emerging discussion of design features? In Chapter 2, we proposed that EU institutions and actors initiated the idea of emissions trading in response to the climate regime.