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WEB LINKS

A good source of information on the EU's international economic and financial activities is the Europa website (managed by the European institutions), <https://europa.eu>, where the main agencies and institutions post policy statements, documents, and other materials that are in the public domain. On monetary policy, see the website of the ECB, <http://www.ecb.int/>. The major economic and financial newspapers have websites that offer a wide range of useful materials, for example <http://www.ft.com/> (Financial Times) and <http://www.economist.com/> (The Economist). On the financial crisis a useful resource is the blog by Professor Nouriel Roubini: <https://www.roubininmonitor.com>.

CHAPTER 12

The Challenge of the Environment, Energy, and Climate Change

John Vogler

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Summary

The European Union (EU) has played a prominent role in the global politics of the environment. This chapter examines how EU external environmental policy was established on the basis of internal policies. Despite problems of coordination and coherence under shared competence, the EU has been able to exercise leadership in global environmental governance and most significantly in the development of the climate change regime. Because the latter concentrates on reducing greenhouse gas (GHG) emissions, the EU has faced the challenge of aligning its energy and climate policies, and internal and external action has been closely interrelated, raising questions of climate and energy security. The second part of the chapter traces the way in which the Union has tried to lead the negotiation of an international climate regime up until the 2015 Paris conference and considers the ways in which the different energy interests of the member states have been accommodated in order to sustain European credibility. Finally, there is an analysis of the problems encountered by the Union as a climate negotiator.

Introduction

Environmental policy in general, and climate change policy in particular, represent key areas of EU involvement in the processes of global governance. A theme running through this chapter is that in this area there is a very close relationship between the internal and external policies of the Union. The acquisition of internal competences led to very extensive Community (now Union) participation in a wide range of international environmental cooperation, from the regulation of international trade in hazardous waste to the Kyoto Protocol. As will be demonstrated in the discussion of the links between external climate and internal energy policy, international requirements have also driven domestic policy formulation within the EU. Since the 1980s, sustainable development has provided the *leitmotif* of global environmental politics. For the EU this highlights problems of 'coherence' between its environmental, trade, and development policies, which can limit their effectiveness and legitimacy. It also links to two of the key themes of this volume: the functioning of international relations within the EU and the links between the EU and broader processes of international relations.

Despite this, and some of the limitations of coordination and competence that will be examined in this chapter, the EU has made strong claims to international leadership. This has been of some significance for the Union's emergent international identity. Whatever the failings of the Common Foreign and Security Policy (CFSP), climate leadership did provide an arena in which success might be claimed and in which the EU could be regarded as constituting a 'power' (thus providing evidence for the third of the key themes in this volume), orchestrating regime construction, mediating between the developed and developing worlds, and taking on the US government over climate and other issues.

Engagement with the international regime for climate change, from its inception in the late 1980s, has required that the Union take action to limit emissions from the burning of fossil fuels. There had already been some limited connection between energy and environmental policy in the campaign to combat 'acid rain' deposited by emissions from power stations during the 1970s and 1980s, but now wholesale reform of the ways in which Europe generated and used energy became essential both to fulfilling EU obligations under the Kyoto Protocol and to maintaining the credibility of the Union's position in the search for a new post-2020 climate agreement. However, the Union had not developed an effective common energy policy and entered into the climate negotiations of the 1990s without a credible foundation (Adelle, Pallemarts, and Chavari 2009). Leadership in the developing international climate change regime required that such an internal basis be established, but climate and energy policy impinged upon some core member state interests revealing major differences between countries at different levels of economic development with diverse 'energy mixes' and dependence upon external suppliers. Thus climate change policy is illustrative of another of the themes of this volume, highlighting the

internal politics of the EU as an international system in its own right, as the Commission, member states, and latterly the European Parliament struggled to reconcile their differing energy requirements in a way that would fulfil the Union's international obligations and ambitions.

Once energy and environmental policy had become entangled in the politics of climate change it was also clear that there were significant contradictions and complementarities between conceptions of energy and climate security. Energy policy ended to be framed in terms of security of supply, with many external policy implications of a largely orthodox kind. On the other hand, climate security involved a rather different perspective in which environmental changes potentially threatened the longer-term interests of the Union. Examining the various ways in which policies conflict or provide much sought after 'synergies' is a useful approach to examining the climate-energy connection. It also provides an important example of attempts to achieve sustainability through EU policy coherence, both internal and external.

After its successes in ratifying the Kyoto Protocol and initiating, in 2005, the world's first international emissions trading scheme (the EU's Emissions Trading System or ETS), the Union found it much more difficult to take the lead in attempts to develop a new comprehensive climate regime. The Copenhagen climate conference of 2009 was seen as a major reverse but the EU was able to lead the negotiation of the 2011 Durban Platform that provided a basis for the 2015 Paris Agreement. These events prompt an analysis, in the final section of this chapter, of the factors that determine the success or failure of the EU in climate diplomacy. Some of these relate to coordination and competence problems peculiar to the EU as a negotiator, but probably more significant are changes in the structure of the international system and the complex policy interactions that lie behind the attempt to build a new 'Energy Union'.

Environmental policy

The environment received not a mention in the Treaty of Rome. The Treaty's focus was upon economic regeneration and expansion and, as the 1955 Messina Declaration had noted, 'Putting more abundant energy at a cheaper price at the disposal of the European economies constitutes a fundamental element of economic progress'. The full consequences of success in this enterprise could not have been grasped by the authors of the Treaty of Rome. Nonetheless, activists in the Commission were able to provide creative interpretations of some of its articles such as to allow the early development of environmental policy. The first piece of environmental legislation is traceable to a 1959 directive on radiological protection under the European Atomic Energy Community (Euratom) Treaty, to be followed by a range of measures that used the harmonization of standards within the Common Market to insert environmental rules. The types of issue covered were vehicle emissions and packaging standards, which if not regulated by the Community, could result in distortions to the

free flow of goods and services within the market. This 'niche' approach was necessitated by the weak legal and institutional position of environmental policy. Action on energy had some treaty basis in the European Coal and Steel Community and Euratom, but key issues of energy mix, supply, and taxation remain within the competence of member state governments (Article 176(a), Treaty on the Functioning of the EU, TFEU). In so far as the Union has been able to develop energy policies it has been through the utilization of single market, competition, and other Community competences including those that were to develop for the environment.

An upsurge of green political consciousness within the USA and many other advanced societies was evident from the late 1960s, and the United Nations (UN) held its first landmark conference on the human environment (United Nations Conference on the Human Environment) in Stockholm in June 1972. In October of that year the Paris summit of the original six members and Britain, Denmark, and Ireland issued a formal declaration that henceforth economic growth would be tempered by a concern to protect the environment (McCormick 2001, 47). A number of well-publicized accidents and environmental disasters alongside an increasing recognition of the scale of transboundary pollution encouraged European action to protect the environment—a process that was generally promoted by 'green leader' states, Denmark, the Netherlands, and Germany (Andersen and Liefelink 1997). In 1973 an environmental action programme was announced, the first of successive programmes under which a mass of protective legislation was to be generated—in excess of 250 specific acts. By the 1990s action on the environment had resulted in one of the most substantial areas of European law. European Community (EC) and now Union competences (where the right to make policy passes from the member states to the Union) were acquired in a range of significant areas, including atmospheric and water quality; the disposal of hazardous waste; noise abatement; and the protection of wildlife and habitats—to the extent that upwards of 80 per cent of member state domestic environmental legislation is initiated by EU environmental directives. Environmental policy achieved treaty recognition in the Single European Act (SEA) of 1986 and is now incorporated in the Treaty of Lisbon (Articles 191 and 192, TFEU). A 'high level of protection and improvement of the quality of the environment' is one of the objectives of the Union, which shall also 'contribute to the sustainable development of the earth' (Article 3, (3.5)).

In fact, for most issues involving environmental policy, competences are shared between the Union and the member states (Article 4(e), TFEU).¹ The proportions of competence vary by issue. For example, in relation to trade in hazardous waste there is a very high degree of Union competence, while for climate change there are important areas of exclusive member state competence. For EU environmental policy under Article 191, the normal legislative procedures apply, which means the application of qualified majority voting (QMV) in the Council and co-decision with the Parliament. Questions of shared competence and internal legislative procedures have significant implications for the role and effectiveness of the EU in international environmental politics, to which we shall now turn.

The international dimension

As with other areas, such as transport, it was evident that the implications of the ECs decisions could not easily be contained within the boundaries of the Common Market. Member states, of course, already had a range of existing international commitments and treaty obligations. Whereas in the case of trade it had been clear from the outset that authority to negotiate on behalf of all members had to be transferred to the Commission, this was hardly the case elsewhere. Indeed, the very idea of handing over rights to conduct external policy was strongly contested by some member state governments. It was only following a significant legal judgment of the European Court of Justice (ECJ) (European Road Transport Agreement (ERTA), ECJ Case 2270, 31 March 1971, see Box 12.1) that the 'parallel' relationship between internal and external EC policy was finally established. The precise terms and circumstances are given in Box 12.1 and are significant because the ERTA judgment provided the basis upon which the Commission was able to assert its right to represent the EC externally where internal environmental policy competence had been achieved.

The judgment provided the basis for participation of the Community (and now the Union) alongside member states in international negotiations. Both were allowed to be signatories to international undertakings, known as 'mixed agreements'. In negotiations it is possible for either the Commission or the Presidency to take the lead in representing the Union, depending upon their competences, and this has sometimes irritated and bewildered outsiders who have to interact with the EU. Furthermore, there is a need to attain agreement during a negotiation among the member states such that there is usually an internal EU negotiation being conducted within the international meeting. Much time, which arguably might be used more productively, is spent by the Commission and national officials in coordination meetings that mirror Council Working Groups *sur place* sometimes described as the 'EU bunker' (Alfonsi 2011, 346). With a rotating Presidency, shared competences, and an increasing number of member states, it might have been expected that the EU would be an ineffective environmental negotiator, hamstrung by its own internal deliberations and capable only of moving at the speed of the slowest member state. However, as we shall see, the EU was able to make credible claims to leadership in environmental diplomacy, although its internal arrangements can still cause difficulty. The entry into force of the Lisbon Treaty reopened debates about the extent of Union competence and the right to represent the EU in climate and other environmental negotiations. In climate and other negotiations there is now a pragmatic compromise whereby representatives of the Commission and of the member state 'president in office' sit behind a single EU nameplate and share representational duties.²

Even if the EU was able to organize itself for the conduct of environmental diplomacy, there remained the question of external recognition. The Community and now the Union enjoy international legal personality, that is to say they have the formal right to incur international obligations in the same way as the member states. However, although the Commission may assert the Union's right to

BOX 12.1**ERTA: from internal to external competence**

The case at issue covered relatively mundane road transport issues. It was the intention of the Treaty of Rome that a common transport policy should be developed and that this would involve the setting up of a common framework of rules (Article 71, Treaty establishing the European Community). Because road transport operated right across the European continent and involved member states and non-members alike, there was a clear logic to ensuring that common standards were maintained and that such issues as rest periods for drivers were not handled differently on either side of the Community's boundaries.

In 1962 the attempt to provide a set of Europe-wide regulations commenced with the signature of a European agreement concerning the work of crews and vehicles engaged in international road transport (ERTA). Among the signatories were five of the six EC states, but insufficient ratifications were obtained during the 1960s for the agreement to enter into force. Meanwhile the Community took the first steps towards the common transport policy, envisaged in the Treaty of Rome, when at the end of the decade it legislated on the harmonization of social legislation relating to road transport (Regulation 543/69). The matters covered, involving driver standards and rest periods, were essentially similar to those covered in the ERTA. New negotiations to revise and ratify the latter had begun in 1967 and, aware of this, the member states agreed in a Council meeting of May 1970 to concert their national approaches to the negotiations and ensure they were in line with the new Community regulation. The Commission reacted to this apparently sensible arrangement by taking legal action against the Council at the ECJ, calling for the Council's decision on the negotiations to be annulled. Thus began the legal proceedings, known as the ERTA case, that were to define the relationship between internal and external competence and which served as the basis for much subsequent external policy development by the Community (ECJ case 22/70, 31 March 1971).

The argument of the Council was that the member states were quite within their rights to continue to negotiate the ERTA on an intergovernmental basis because the Treaty did not so provide in the area of transport and that 'authority to enter into agreements with third countries cannot be assumed in the absence of an express provision in the Treaty' (ECJ 22/70). On the issue of principle, the Court disagreed and sided with the Commission. It found that the authority to negotiate externally 'arises not only from an express conferment by the Treaty but may equally flow from other provisions of the Treaty and from means adopted' (ECJ 22/70, 16). Once the Community has laid down common rules in whatever form, the member states 'no longer have the right, acting individually or even collectively, to undertake obligations with third countries which affect those rules or alter their scope' (ibid., 17). Thus 'the system of internal Community measures may not be separated from that of external relations. This doctrine of 'parallelism' between internal and external policy, and that competence for one implies the other, has been of critical importance in the development of EU external relations.'

participate in international organizations, this has not always been accepted by outsiders and the Union is recognized as a full member of relatively few international organizations.

These include the World Trade Organization (WTO) and the UN Food and Agriculture Organization but not the United Nations Environment Programme (UNEP)

or the UN General Assembly. Thus an important part of the history of the EU in international environmental politics has been the struggle for recognition.

The ERTA judgment allowed environmentally minded Commission officials (in the Environment and Consumer Protection Service in DG III—a dedicated Environment DG was set up only in 1981) to assert the external competence of the Community alongside the member states.³ This first occurred at a regional level with the 1975 Bonn Convention for the protection of the Rhine against chemical pollution, to be followed by the Barcelona Convention of 1976 for the protection of the Mediterranean Sea. The Community could bring to the table not only its policy competences but more persuasively, a budgetary contribution.

By the end of the decade the Community was engaged on a broader scale with international attempts to deal with transboundary air pollution and acid rain. The negotiations for a convention on Long-Range Transboundary Air Pollution (LRTAP) under the auspices of the United Nations Economic Commission for Europe were themselves, in part, a consequence of the changes in East–West politics and the Helsinki process that had helped to stimulate the development of European Political Cooperation during the 1970s. Just as the EC had competence for the trade aspects of East–West relations, so it had competence for questions of atmospheric pollution and for the implementation of any agreement arrived at. Previously the Soviet Union and its allies had refused to recognize the Community, a practice that involved avoiding eye contact with Commission officials at UN meetings and leaving the room when they spoke. Now, in the hope that the Council for Mutual Economic Assistance (COMECON) would achieve similar recognition, a special status of Regional Economic Integration Organization (REIO) was agreed for the EC, which has ever since served to allow the participation of the Community alongside the member states. The Union remains the only extant example of an REIO but most recent global environmental conventions on biodiversity, desertification, persistent organic pollutants, climate, etc. contain an REIO clause. This allows the Union to be a full participant and signatory according to its competences and to cast the votes of all the member state parties, but not to vote in addition to them. By contrast, energy questions were rarely subject to international cooperation, rather to the dictates of an often erratic market sometimes subject to political manipulation. In 1974 as a direct result of the oil crisis the International Energy Agency (IEA) was formed to agree on the stockpiling of reserves. It has subsequently provided a forum for research and analysis in which the EU participates, but not as a full member. Much later, in 2009, the only other formal attempt at global energy governance, the International Renewable Energy Agency, was created with the EU as a full member alongside the member states (Van de Graaf 2013).

Internal environmental legislation gathered pace during the 1980s, and Community competence was definitively established through the treaty amendments agreed under the SEA of 1986, which also introduced QMV in the Council. These events coincided with a series of significant external opportunities for the development of environmental policy. From 1985 to 1987 the Montreal Protocol to the Vienna Convention, to combat depletion of the stratospheric ozone layer, was negotiated. The

Community was heavily involved, although not always productively, because its position was too often dominated by the interests of European chemical industries that wished to continue production of ozone-depleting chemicals (chlorofluorocarbons, CFCs). US negotiators complained that constitutional wrangling within the European delegation hampered the conduct of negotiations (Benedick 1991). Nonetheless, agreement was achieved on what has become probably the most successful and effective international environmental regime. This was also the last occasion, until the Obama presidency in 2009–16, that the USA, as opposed to Europe, could lay claim to global environmental leadership.

Sustainable development

The late 1980s was a period of intense international environmental activity leading to the negotiation of global conventions on climate, biodiversity, and desertification, all of which were scheduled to be signed at the 'Earth Summit', to be held in Rio in 1992, formally the United Nations Conference on Environment and Development (UNCED). In 1987, in preparation for this landmark meeting, the Brundtland Report (World Commission on Environment and Development 1987) popularized the concept of sustainable development. Sustainable development has become a very significant idea for the EU and for the wider discussion of the linkages between economic activity, development, and environmental degradation. There are many different and changing interpretations, but its political essence is that there can be no progress without a political and financial accommodation between the desire of the north to avoid ecological degradation and collapse and the urgent demands of the south for development and poverty reduction. Since Rio the Union has embraced the concept as one of its primary objectives, to be 'mainstreamed' in its policies. The extent to which sustainability can go beyond more conventional and limited ideas of environmental protection is evident from the European Council's own definition:

It is about safeguarding the Earth's capacity to support life in all its diversity and is based on the principles of democracy, gender equality, solidarity, the rule of law and respect for fundamental rights, including freedom and equal opportunities for all. It aims at the continuous improvement of the quality of life and well-being on Earth for present and future generations. To that end it promotes a dynamic economy with full employment and a high level of education, health protection, social and territorial cohesion and environmental protection in a peaceful and secure world.

(European Council 2006a)

One need not go quite this far to recognize that once environmental policy was reframed in terms of sustainability, the common commercial, agricultural, and fisheries policies of the Union and its extensive development activities could hardly be excluded. They often provided a source of embarrassment because of the ecological and developmental consequences of the Common Agricultural Policy (CAP) and the

way in which fisheries policy, for example, not only served to deplete European fish stocks, but did actual damage to sustainable livelihoods elsewhere.⁴ A major challenge remains in attempting to integrate external environmental policy with fisheries, trade, development, and transport policy in pursuit of the commitments to sustainability contained in the Treaty on European Union and expressed in the revisions to the Community Treaty from 1987 onwards. The problem is often described in terms of policy 'coherence', both horizontal (between the different activities of the Union) and vertical (between the priorities of the member states and the Union). The Common Fisheries Policy (CFP) is now undergoing a process of transformation to a regime for the sustenance rather than exploitation of fish stocks. Trade policy has only been marginally affected by environmental concerns for WTO and bilateral negotiations continue to be dominated by a set of zero-sum commercial assumptions. While it is easy to be cynical about these matters, it remains the case that the EU is almost alone among WTO members in taking issues such as animal welfare, trade impact assessments, and eco-labelling seriously.

There is, here, a key sustainability issue in the 'coherence' of the Union's policies where trade, development, and environment frequently appear to pull in opposing directions. Coherence between the Union's approaches towards energy and climate, which we shall discuss, overlaps significantly with these other areas. There has, for example, been pressure for border tax adjustments to shield industries subject to the higher energy costs imposed by the EU's internal ETS from external competition. Substantial efforts were made in the Cardiff process (launched in 1998) and elsewhere to encourage 'horizontal' policy coherence in the pursuit of sustainable development, although it is difficult to judge their success and there has been 'no significant impact' on climate and energy coherence (Adelle, Pallematters, and Chawari 2009, 50). Sustainable development was the keynote theme of the 1992 Rio conference, and the EU has continued to be a leading player in subsequent UN follow-up conference diplomacy. At Rio, much effort was devoted to drafting Agenda 21, a massive compendium of good sustainable development practice, which still has currency. It was clear that much of its content was covered by Community competence, but the Commission was burdened with the problem of its lack of status at the UN. The latter remained an organization of sovereign states and the EC was only admitted by the General Assembly in 1973 as an observer without speaking or voting rights. Great effort was extended by the Commission in advance of UNCED to improve this situation, sometimes in the teeth of member state opposition. As a result the following footnote was added to Agenda 21:

When the term Governments is used, it will be deemed to include the European Economic Community acting within its areas of competence.

In contrast to practices established by the Conventions including those signed in Rio, where the Union has the status of an REIO, the UN General Assembly, and its conferences and commissions continue to deny full representation to the Union alongside the member states (Vogler and Stephan 2007).

EU leadership

During the 1970s the EU was extensively involved in international environmental diplomacy, despite the negotiating difficulties typically encountered where competence is shared between the Community and the member states and agreements are 'mixed'. Indeed, the European Community has been a leading player in the field. Indeed, the European Community has been a leading player in the field. Indeed, the European Community has been a leading player in the field. Indeed, the European Community has been a leading player in the field.

The Union has consistently aspired to leadership in global environmental governance (Vogler and Stephan 2007, Wurzel and Connely 2010). Leadership involves both structural and normative components and may be conceptualized in terms of three categories: power based, directional, and intellectual (Skudvyn and Andersen 2006). Power based or structural leadership involves the use of both incentives and

BOX 12.2 Some major international environmental agreements to which the Union is a party

- Barcelona Convention for the Protection of the Mediterranean 1976
- LFAR Convention 1979 and protocols
- Convention on the Conservation of Antarctic Marine Living Resources 1980
- United Nations Convention on the Law of the Sea 1982
- Vienna Convention on the Protection of the Stratospheric Ozone Layer 1985 and Montreal Protocol 1987
- Convention for the Prevention of Marine Pollution from Land-Based Sources and Bunkers 1986
- Basic Convention on the Control of the Transboundary Movement of Hazardous Wastes and their Disposal 1989
- United Nations Framework Convention on Climate Change (UNFCCC) 1992 and Kyoto Protocol 1997
- United Nations Convention on Desertification 1992
- United Nations Convention on Biological Diversity 1992, Cartagena Protocol on Biosafety 2000 and Nagoya Protocol on Access and Benefit Sharing 2011
- Rotterdam Convention on Prior Informed Consent Procedure for Hazardous Chemicals and Pesticides 1998
- Aarhus Convention on Access to Environmental Information 1998
- Stockholm Convention on Persistent Organic Pollutants 2001
- Minamata Convention on Mercury 2013

penalties. Traditionally the EU has been able to provide incentives because of the leadership and other funding that it can employ, and these are numerous examples of EU funded environmental initiatives, both industrial and non-industrial. As the case now, one of the major contributions made by the EU to the setting of environmental standards has been through the accession process, where aspiring candidates are required to accept and implement its rules (Stephens 2009). Directional leadership involves heavily on the demonstration effect and credibility deriving from the success of the EU's internal environmental policies, which is closely related to intellectual leadership. The latter describes the way in which the EU can determine the way that agendas are set and would include the widespread acceptance of its policy ideas such as the precautionary and polluter pays' principles. As we shall see, the exercise of such leadership, based on its targets and internal policies, was a key component of the Union's approach to the climate change convention.

The leadership that the EU has been able to provide has occurred within a specific political context. The ending of the Cold War and the upsurge of global environmental concern in the late 1980s provided a political space within which the EU could begin to assert its leadership based upon its internal policy achievements. However, there is also little doubt that the international prominence of EU environmental policy was in many ways the reciprocal of US abatement. It should always be remembered that the USA virtually invented modern environmental policy and was up until the late 1980s a clear leader. There is probably no other area that can rival that of climate change in terms of the profile attained by the EU at the expense of the USA (Vogler and Bretherton 2006).

The climate and energy problem

The issue of climate change emerged on to the international agenda at the end of the 1980s. For the EU it represented both a profound challenge and an opportunity. The problems associated with the enhanced greenhouse effect were very different from those that could be more narrowly classified under the heading of environmental policy although DG for Environment and the environmental formation of the Council of Ministers were to take the lead. Mitigating emissions of GHGs and adapting to the likely consequences of increases in mean global temperatures set the most severe and varied challenges to policy and, unlike other environmental problems, such as stratospheric ozone depletion, potentially touch almost every aspect of the economy and society. The problem was compounded by lack of scientific certainty as to predicted temperature rises and associated climatic impacts. The Intergovernmental Panel on Climate Change (IPCC) was created in 1988 to provide authoritative reviews of the evidence. Over the period of the EU's involvement in climate politics, IPCC assessments have steadily narrowed the range of uncertainty at least as far as the probability of substantial rises in mean temperatures consequent on human

activities are concerned. Taking this into account, the EU has been committed since 1996 to holding the mean increase in global temperature (since pre-industrial times) below the 'dangerous' level of 2°C (in 2016 the increase is at 1°C). The EU has always stressed that, in contrast to many other governments, its policy is based upon the best available scientific evidence. However, the 2°C threshold has been widely criticized as vague and inadequate (Victor and Fennel 2014).

Climate change has been an international issue because the atmosphere may be regarded as a global common and the preservation of atmospheric quality and a stable climate has the characteristic of a public good. Accordingly, concerted international action is necessary if only to prevent 'free-riding', a situation where some countries might benefit from pollution controls adopted by others without bearing the costs involved. There are other requirements for cooperative international action as well—the funding of scientific investigation and, most important, the transfer of funds and technology to allow developing nations to participate in mitigating emissions and to adapt to climate change. There is also a key element of compensation here for any restrictions on their growth that may be required to restrain GHG emissions. The UN climate regime that has developed from the Convention on Climate Change of 1992 attempts to cope with these problems. It has a somewhat narrow territorial approach to the changing climate, recognizing six GHGs but prioritizing reductions in carbon dioxide (Vogler 2016, 13–34).³ With shipping and aviation excluded from the current UNFCCC regime, this places a heavy emphasis on reducing energy-related carbon dioxide emissions. Thus from the beginning of EU involvement, climate policy has been related to energy policy and the EU has sought not only to abide by the agreements that it has signed but more than that, to establish credibility through leadership by example. This effort has been beset by a number of difficulties because although climate and energy policy may be seen as complementary to one another, there are also contradictions. These can be usefully explored by considering the various concepts of security that underpin the EU's approach. Security, defined as the avoidance of a range of physical threats, economic scarcities, and related politico-military dangers will, we can assume, be the ultimate end of Union policy.

Climate and energy security

In classical accounts of international relations, security typically implies the absence of, or the ability to resist, a threat of armed attack across borders. In the search for security the struggle for scarce energy resources characterized a large number of 20th century conflicts. Less well understood in the academic and policy literature was the way in which a changing climate could not only stimulate conflict over diminishing resources but also lead to various other forms of instability and war (Barrett 2001). Such an awareness of what we may call the orthodox security implications of climate change has now become part of the approach adopted in the European Security and Defence Policy. Climate change was placed on the UN Security Council agenda by the UK in 2007 and again by Germany in 2011. It was also conceptualized

in CISP documents as a 'threat multiplier' (European Council 2008a). Thus a changing climate could serve to exacerbate existing conflicts with, for example, increasing desertification in Africa, or even to create new ones such as those presaged by the melting of Arctic ice. Over the longer term, the predictions of the effects of global mean temperature increases including sea-level rise, forest die-back, and loss of agricultural land, have direct security implications for Europe.

Energy security is a treaty objective of the Union (Article 194(1), TFEU). Confusingly—although obviously related to the other notions of security—it tends to have a rather different meaning. As Yergin (2006, 70) points out, it is defined in the developed world as simply 'the availability of sufficient supplies at affordable prices' but elsewhere it may be seen in terms of 'security of demand' for energy exports or in the Russian case 'the reassertion of state control over "strategic resources"'. The EU has been faced with a security-of-supply problem over many years. Dependence on imported energy has been recognized as a source of EU vulnerability since the oil-price shocks of the 1970s and was re-emphasized by the interruption of gas supplies from Russia in the winters of 2006 and 2009. The Union currently depends upon hydrocarbon imports to meet approximately 50 per cent of its needs, a proportion that could rise dramatically over the next 20–30 years. A standard response to energy insecurity is to diversify sources of supply. For the EU this has proved to be a problem because it is heavily dependent upon Russia, Norway, and Algeria for vital imports of hydrocarbons. With the decline of the UK's North Sea oil reserves, all member countries share an acute dependence on imported oil mainly sourced from the Organization of the Petroleum Exporting Countries states in the Middle East (see Table 12.1). Just a mention of many of the countries listed in Table 12.1 serves to highlight the way in which there is a volatile and difficult interaction between the EU's energy requirements and ongoing conflicts within the EU's 'neighbourhood'.

Also, the levels of vulnerability of the member states differ sharply. Some are almost self-sufficient in gas and coal, others such as France have extensive nuclear power generation sectors, while still others such as Romania and Bulgaria are dependent upon a single Russian supplier as a consequence of infrastructure transiting Ukraine that dates from the era of the Cold War. In 2006 and then again in 2009 and 2014 this vulnerability was starkly underlined by disputes between Russia and the Ukraine over the pricing of natural gas, which led the former to shut off supplies. The knock-on effect was that EU members reliant on the same pipelines also suffered and interdependence in the supply of gas was a continuing element in deteriorating relations with the Russian Federation. The Commission's response is revealing in that it highlights the continuing absence of coordination and transparency between the member states over energy issues and the lack of a properly functioning internal energy market, both of which would be required to ensure an effective response to the kind of energy security challenges encountered in the Russian relationship (European Commission 2009b). From the 1990s the Commission has been involved in a long struggle with the member states over the 'unbundling' of energy production and transmission networks and their efficient interconnection. Steps towards this

TABLE 12.1 Sources of EU energy imports 2013

	Crude oil	Natural gas
Russia	33.5	39.0
Norway	11.7	29.5
Libya	5.6	12.8
Saudi Arabia	8.6	6.7
Nigeria	8.1	1.8
Kazakhstan	5.8	1.8
Azerbaijan	4.8	0.8
Iraq	3.6	0.5
Algeria	2.9	0.2
Others	14.4	6.9

Figures are percentages of total EU energy imports.

Source: Eurostat 2015, 'Main origins of primary energy imports, EU 28, 2003-2013, EU 28, 2003-2013', http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Main_origins_of_primary_energy_imports_EU_28_2003-13

have been achieved in the 'third energy package' but in 2014 the EU still lacked the fully integrated electricity and gas markets that it deems vital to a functioning internal energy market' (Schubert, Pollak and Kreuder 2016, 166). The development of new nuclear plant and the controversial adoption of fracking technology could help to lessen energy dependence alongside the Union's policies on renewable resources and energy saving, but a resort to external policy is still unavoidable.

[E]nergy must become a central part of all external EU relations: it is crucial to geopolitical security, economic stability, social development and international efforts to combat climate change. The EU must therefore develop effective energy relations with all its international partners.

(European Commission 2006a, 17)

Within this remit there have essentially been two policy approaches to energy security. The first involved an attempt to create a common regulatory space around the EU effectively extending its own market rules into a pan-European energy community. Unfortunately, individual member states continued to negotiate their own energy supply deals with the Russian government, which in its turn was happy to profit from divisions within the EU and to resist Brussels's calls, in the Energy Charter Treaty, for liberalization of its own energy industry. The other European strategy for security of energy supply has a more geopolitical intent. The word is often employed rather loosely as a synonym for international politics, but in this case it is appropriate because

it refers to the critical geographical location of oil and gas pipelines. The objective is to seek security through avoiding dependence on a single supplier or route through support for the building of new pipelines. In reality this has spawned a number of complex and controversial struggles for economic advantage and regional dominance involving and confronting member states and corporations and Middle Eastern, Caspian and Russian consortia of member states and corporations and supply networks. In the view of one commentator, there is here a debate between two 'storylines', one stressing 'markets and institutions'—the Commission's preferred approach—and the geopolitical alternative that highlighted 'regions and empires' (Youngs 2009, 6).

Energy and climate security can complement each other. EU policymakers, since 2000, appear to have begun to understand the interconnections: 'intensifying discussions on the security of future energy supplies to Europe have lent strong support to the development of stringent climate policies' (Oberthür and Pallmaers 2010b, 15). Also, there are clear synergies and sought-after 'win-win solutions potentially available in the development of renewable energy sources that do not emit GHGs: climate change and energy security are two sides of the same coin. The same remedies must be applied to both problems' (Priebalgs 2009). The pursuit of renewable energy sources and demand reduction can serve not only to achieve energy and climate security objectives, but also contribute to achieving the economic objectives of the Lisbon Agenda—setting 'the pace for a new global industrial revolution' (European Commission 2007a, 20). There is evidence that, in the Commission at least, there is a willingness to think through the benefits of aligning energy, climate, and security policies (Vogler 2013). Strategies for energy security that merely ensure that large quantities of hydrocarbons continue to be burned, thus adding to the greenhouse effect, are in the long run self-defeating and there remain contradictions between EU energy and climate policies. Substituting gas for coal-powered generation, for example, yields a reduction in GHG emissions, but runs up against the supply dependencies outlined in this chapter. Another example is provided by the exploitation of Arctic resources, made accessible by the melting of the ice. In a malign positive-feedback loop the burning of these fossil fuels contributes to further warming, ice melt, and a diminished albedo effect, which in turn allows further extraction of fossil fuels. This does not appear to have prevented serious consideration of improving EU energy security through access to Arctic hydrocarbon resources (European Commission 2012b). At the same time, climate policy, in response to international ambitions and obligations, became a key driver of the EU's attempts at internal energy policy.

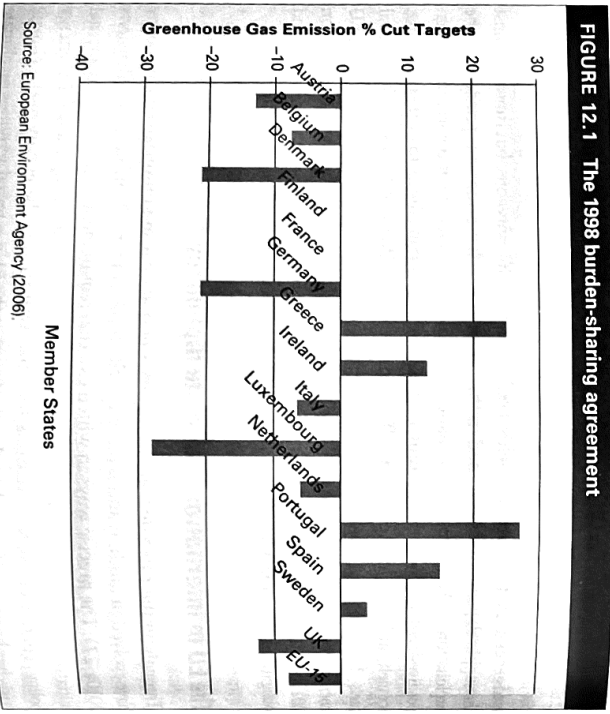
The EU in international climate diplomacy

Throughout their two decades of history, international and European climate policy have evolved in tandem and have fed back on each other (Oberthür and Pallmaers 2010a, 27). The precise ways in which external requirements have related to internal initiatives have varied but at least until 2008 climate leadership framed EU energy policy. There were several reasons for this. Awareness of the gravity of the climate crisis has been significant, but also the fact that the EU's external activities on climate

change retain a consistently high level of popular support across the Union (Eurobarometer 2009) and energy policy successfully 'piggybacked' on the more popular climate policy (Adelle, Pallemaerts, and Chiavari 2009, 58). Climate leadership has also provided an identity and indeed a palpable success for the Union during a difficult period of constitutional change—from the convention that drew up the constitution in 2003, through its rejection in the referendums of 2005, until the final adoption of the Treaty of Lisbon in late 2009.

The Union has played a central role in the development of the UNFCCC. Its long-term approach has been to call for ambitious emissions reduction 'targets and timetables'. Prior to the signature of the UNFCCC, it clashed with the first Bush Administration over the critical question of whether the new agreement should contain a binding target for developed world emissions reductions (to reduce emissions to 1990 levels by 2000). US rejection led to a watered-down aspiration (Article 4.2) in a convention that imposed no obligations on its parties other than to provide national inventories and reports. The first conference of the UNFCCC Parties (Conference of the Parties, COP (COP 1) in Berlin gave itself a mandate to negotiate, by 1997, a protocol that would bind Annex I (developed) countries to make real cuts in their emissions.

While the EU had already failed to back up its proposed targets with a carbon tax (Skjaereth 1994), it now had to consider internal policies to support ambitious external targets. In the event this was done with relative ease upon an internal burden-sharing agreement, popularly known as the EU 'bubble' (see Figure 12.1).



This arrangement allowed some less developed member states to enjoy very large increases in their permitted emissions while at the same time delivering an overall EU reduction (first of 10 per cent and subsequently 8 per cent). It was only achievable because of the highly fortuitous circumstances attending the use of a 1990 baseline, allowing painless but large reductions by Germany through the closure of inefficient plants in the old German Democratic Republic, and by the UK, through its transition from coal-based power generation to gas (Ringius 1999).

In the Kyoto Protocol negotiations, other developed countries agreed a range of commitments which aggregated to a 5.2 per cent reduction and the USA insisted upon 'flexibility mechanisms'. These sought to provide a less painful way of reducing emissions through carbon trading and international offsets—joint implementation and the Clean Development Mechanism (CDM). This was already part of US environmental policy and had been much discussed as an economically efficient way of using market forces to bring about the desired cuts in carbon emissions. Prior to Kyoto such mechanisms were opposed by the EU as being antithetical to its own regulatory tradition—usually described as one of 'command and control' where environmental targets were set for member states and they were required to comply.

The ratification process for the 1997 Kyoto Protocol was to extend until 2005. It was in these years that the EU was called upon to display leadership if the nascent climate regime was to survive. Even before the ink was dry on the Kyoto signatures it was clear that there would be a problem with US ratification. Not only was the target of 7 per cent difficult and costly to achieve, but the senate had already made it clear in its 1997 Byrd-Hagel Resolution that it would not ratify an agreement that allowed the developing-world economic competitors of the USA to avoid making cuts in their own emissions. The 2000 COP at the Hague revealed the depths of disagreement between the EU and the USA (Grubb and Yamin 2001). In March 2001 the incoming Administration of George W. Bush formally denounced US signature and then proceeded to pursue a campaign of outright opposition to the Protocol.

At the June 2001 Gothenburg European Council, the EU took the momentous decision to proceed without the USA. The challenge was very substantial. Could a regime, much of which only existed in draft form, work without the participation of what was then the world's largest emitter of carbon dioxide and when the 55 per cent rule applied to ratification? In the event the Union was able, in successive COPs, in Berlin and Marrakesh, to turn the Kyoto Protocol into an agreement capable of ratification and implementation. This was no mean achievement because of the sheer complexity and novelty of some of its provisions relating to, for example, monitoring and compliance with the rules of the CDM. Furthermore, there was the need to counter US opposition and to gather sufficient ratifications. This required a concerted diplomatic effort by the Union to ensure that Japan ratified but also to persuade the Russian government; some Russian ministers had expressed open scepticism about the validity of climate science, and a warming climate might be regarded as bringing benefits. Russian ratification was achieved in 2004, in part on the basis of promising EU support for Russian entry into the WTO (Bretherton and Vogler 2006, 109).

The year 2005 was an important one for the Union, marking both the ratification of the Protocol and the initiation of the Union's key mechanism for achieving around half of its 8 per cent reduction target—the ETS. During the Kyoto ratification process the previous discontinuity between internal energy policy and climate leadership began to erode, with the realization that strong internal measures would be required if the Union was to remain a credible leader (Oberthür and Pallemans 2010a). ETS represented a major reversal in the EU's approach, from opponent to principal advocate of an international market-based approach to emissions reduction and one driven by external commitments (Cass 2005; Weitsstad 2005). That ETS should be seen to function became essential to the EU's exemplary strategy and, in the absence of a new climate agreement, there were even hopes that a substitute could be found by extending the ETS market to individual US states and elsewhere. Unfortunately it continued to be beset by problems reflected in the collapse of the carbon price and underwent successive attempts at reform.

By 2005 it was clear that, even if the Kyoto targets were to be achieved, which was far from certain, they fell far short of what would be required to give a reasonable chance of climate stability. Above all, the large developing countries would have to participate in restricting their projected emissions. The differences in relation to energy use and levels of development within the EU are mirrored to a much greater extent across the rest of the world economy (see Table 12.2). Developing countries can claim that their per capita GHG emissions are a fraction of those existing among

TABLE 12.2 Comparative carbon dioxide emissions 2014

	Carbon dioxide in billion m. t.	% global emissions	m. t. per capita
China	10.5	29.5	0.76
USA	05.3	14.9	16.5
EU	03.4	09.6	06.7
India	02.3	06.5	0.18
Russia	01.7	04.8	12.4
Japan	01.3	03.6	10.1
Brazil	05.0	01.4	02.5
Australia	04.1	01.1	17.3
South Africa	04.0	01.1	02.5

m. t. = metric ton

Source: European Commission Joint Research Centre (2016) *EDGAR Emissions Database for Global Atmospheric Research*. CO2 Time Series 1990–2014 per region/country and per capita for world countries' <http://edgar.jrc.ec.europa.eu/overview.php?V=CO2ts1990-2014>.

the Organisation for Economic Co-operation and Development countries. Furthermore, GHGs have an atmospheric lifetime of up to 100 years, so there is also the question of the historical burden imposed upon the earth by the industrial development of the advanced economies. Under these circumstances the UN framework convention would not have been negotiable without agreement on the principle of common but differentiated responsibilities and respective capabilities'. This required that developing countries as well as the EU take the lead in making emissions cuts and was reflected in the terms of the Kyoto Protocol. However, it rapidly became apparent that the average 5.2 per cent cuts that were promised against a 1990 baseline were woefully inadequate when seen against the requirement to avoid a 2°C temperature increase. Effective action after 2012, when the first commitment period of Kyoto ended, would require not only more cuts in developed-country emissions but major contributions from the fast-developing economies of the south. Whereas in 1992 the EU had been second only to the USA in its carbon emissions, by 2007 both had been surpassed by China in terms of current (but not cumulative) emissions, and by 2014 the gap had widened (see Table 12.2).

In 2007 the European Council committed to a 20 per cent emissions reduction by 2020 and a 30 per cent reduction if other developed-country parties were prepared to match them, plus an internal target of a 20 per cent share for renewables. At the end of the year the Union was prominent in the negotiation of the Bali Plan of Action envisaging broad-ranging discussions to produce a new climate agreement on mitigation, adaptation, finance, and technology by COP 15, scheduled to be held in Copenhagen at the end of 2009. Most significantly, by splitting negotiations into two tracks, one on the future of Kyoto and the other on the Convention itself, US participation was ensured.

Providing the internal means to implement the EU's stated targets and timetables was regarded as critical to its continued climate leadership. Unlike the approach to Kyoto, it involved the development of new common energy policies with potential costs (Vogler 2009). It also coincided with the global economic crisis of 2007–8. On the one hand the economic slowdown meant that emissions targets were easier to achieve, on the other it raised acute issues of competitiveness which were accompanied by worries about energy security highlighted by the gas crises in the east. The IEA (2014, 3) commented that 'in 2008 sustainability—notably mitigating climate change—was the key driver for EU energy policies' but the context of policy changed dramatically... concerns of energy security and competitiveness have become much more pressing'. This began to be reflected in the legislative process to agree the internal means to achieve the targets set in March 2007. The 'climate and energy package' (Box 12.3) wound its way through co-decision prolonged by extensive lobbying by industrial interests, who saw their competitiveness eroded by potential rises in energy prices and by member states aggrieved at their treatment under the new arrangements to reform the next phase of the ETS. The final amended package was piloted, with some difficulty, through the December 2008 European Council by the French Presidency (see Box 12.3).⁶

BOX 12.3**The EU climate and energy package**

Provides the means to achieve the EU's 20-20-20 climate and energy targets and was finally agreed at a European Council held in December 2008, entering into force in June 2009. The key elements were as follows:

- A revised ETS to commence from 2013. National allocation plans will be replaced by a single EU-wide emissions cap. This will be progressively reduced in order to yield a 21 per cent reduction in emissions by 2020 relative to 2005. The auctioning of allowances will be introduced to replace the system of free allocation, although derogations from this rule were negotiated to assist some coal-dependent power generators and to counter the risks of 'carbon leakage' where foreign competitors might otherwise take advantage of relatively high EU energy prices. A limited use of joint implementation and CDM credits will continue to be allowed (Directive 2009/29/EC amending Directive 2003/87/EC).
- An 'effort-sharing' decision to cover emissions from transport, agriculture, housing, and waste not controlled under the ETS (which covers power generation and from 2012, aviation). Member states have agreed to binding national targets that vary according to their level of development in much the same way as the previous burden-sharing agreement. The overall 2020 target is for a 10 per cent reduction from 2005 levels but within this new EU 'bubble' there are wide variations. Denmark is committed, for example, to a 20 per cent reduction and the UK to 16 per cent, while Bulgaria is allowed a 20 per cent increase (Decision 406/2009/EC).
- There are similar binding national targets for the introduction of renewable energy sources to achieve an EU average of 20 per cent by 2020. Again there are substantial differences reflecting national circumstances: the Finnish target is 38 per cent while that for Malta is only 10 per cent (Directive 2009/28/EC).
- The promotion of carbon capture and storage technology is the final part of the package—whereby it is hoped that the carbon dioxide released by burning coal can be prevented from adding to the greenhouse effect through capture and then storage underground. This technology is as yet unproven on a large scale and is the subject of EU collaboration with China (Directive 2009/31/EC).

There were high expectations for the 2009 COP at Copenhagen. The election of President Obama enabled a convergence of positions with the USA at the expense of the EU's previous commitment to the continuation of the Kyoto Protocol. The objective was a comprehensive, ambitious, fair, science-based and legally binding global treaty (European Commission 2009a). The EU set out to reassert its exemplary leadership with its 20-20-20 target, plus a substantial €7.2 billion start-up funding package to be provided to least developed countries before 2013.

It would be an understatement to say that for the EU the outcome of the long-awaited Copenhagen meeting was a disappointment. Without a final agreed text after 2 years of preparatory negotiation the USA and the newly formed BASIC

(Brazil, South Africa, India, and China) group cut a last minute deal without the EU—the non-binding Copenhagen Accord. In retrospect by acknowledging the 2 degree threshold and inviting voluntary emissions pledges from Parties, the Accord provided some foundations for the 2015 Paris Agreement. But at the time the Swedish Presidency characterized the conference as 'a disaster' while Chancellor Merkel put the best gloss on proceedings—'a step, albeit a small one, towards a global climate architecture' (Egenhofer and Georgiev 2009, 1). That the EU was 'the biggest victim of the Copenhagen failure' (Lardi 2010) was an opinion widely shared in press commentary.

The Commission developed a 'road map' to a competitive, low carbon economy that made the case for the economic and energy security benefits of ecological modernization through developing 'cost efficient pathways' in key economic sectors. The target was for an overall emissions reduction of 40 per cent by 2030, 60 per cent by 2040, and no less than 80 per cent by 2050 (European Commission 2011a). According to the IEA there has already been 'strong progress' in this direction (IEA 2014, 4). Partly as a result of the economic downturn, GHG emissions had by 2012 decreased by 19.2 per cent and the share of renewables in final energy consumption had increased to 14.1 per cent (ibid.). On the other hand the ETS, beset by surplus allowances and low fuel prices, had failed to perform as intended with a 2014 carbon price of just 6 euro per tonne, and there were continuing internal political difficulties with attempts at reform through the 'backloading' of allowances. This meant that it was national subsidies, rather than the stimulus of a high carbon price, that supported the introduction of renewables and energy saving. An attempt to incorporate international aviation emissions within the ETS also stalled. From 2012 airlines using EU airspace were to have been required to buy ETS credits to cover their emissions. However, under strong international pressure and threats of trade sanctions leading to opposition by Germany, France, and the UK, the European Parliament was persuaded to postpone the external operation of the scheme until 2017, pending a decision of the International Civil Aviation Organization to institute alternative arrangements for taxing aviation emissions (Keating 2014). In the same period, high gas prices and relatively cheap supplies of coal on world markets had the counterproductive effect of putting old coal-burning power stations back on stream. Sufficient progress had been made towards the 2020 targets to allow the EU to enter into a second Kyoto commitment period but there were doubts about the achievement of longer term objectives. As the IEA (2014, 5) commented '... there has been a lack of integration of climate and energy policies at EU level and between EU and national energy policy decisions, which could not address the interplay and trade-offs between different targets and policy measures.'

The uncertain development of the EU's long-term de-carbonization strategy coincided with a highly significant reassertion of EU leadership demonstrated at the 2011 Durban COP where the Union could take credit for brokering agreement on the Durban Platform. This set of guidelines for a new comprehensive agreement involved both the USA, BASICs, and other developing countries. It essentially

removed the 'firewall' between Annex I and the rest, although arguments about the continuing relevance of the Annexes and the meaning of 'common but differentiated responsibilities and respective capabilities' remained. On the other hand a new agreement for 2020–30 would comprise 'contributions' rather than 'commitments' and would not operate according to a pre-imposed global plan. In formulating this North–South agreement the willingness of the Union to participate in a second commitment period of the Kyoto Protocol appears to have been crucial. Renewing Kyoto, which mandates GHG reductions by developed countries and allows beneficial transfers under the CDM, was a key requirement of the G77 countries if they were to accept participation in a comprehensive agreement. The EU, which had mistakenly appeared to drop its support for Kyoto mark II prior to Copenhagen, was almost alone in supporting it in 2011, as Canada, Japan, and Russia refused to renew their participation. (Unlike some other participants in the first commitment period the EU had also achieved its 8 per cent reduction target.) The renewal of the Kyoto Protocol was formalized in the Doha Amendment of 2012 and its quantified emissions reduction commitments for the EU, over the period 2013–20 were met by the targets of the climate and energy package, where the headline goal of a 20 per cent reduction had already almost been achieved. The EU commitment was important because there was a need to continue to reduce emissions in the period prior to the entry into force of a new climate agreement in 2020.⁷

The EU position in advance of the Paris COP where an agreement for 2020 was to be concluded, stressed the need for a new Protocol under the Convention, which was ambitious, legally binding, multilateral, rules-based with global participation and informed by science' (European Union 2013). Of all the major Parties, the EU was most insistent on establishing timely and verifiable national emissions pledges sufficient to provide certainty and mutual confidence in the achievement of an ambitious agreement. After the usual internal negotiations and concessions to national energy interests, the October 2014 European Council was able to announce its Conclusions on a 2030 Climate and Energy Policy Framework (European Council 2014: Keating 2014). Included was a binding 2030 overall target of a 40 per cent reduction in GHG emissions, against a 1990 baseline, as the Union's 'intended contribution'. Less impressive were 'non-binding' targets of 27 per cent increases in energy efficiency and the share of renewables over the same period. This was a Union-wide target, member states refused to surrender control over their national energy mix.

The 2015 Paris COP 21 did not repeat the mistakes of Copenhagen, indeed the outcome was rather more successful than many had anticipated. A notable achievement was text that included reference to the aspiration to constrain global mean temperature increase to 1.5°C, something long demanded by small island developing states. The agreement also included a new 'transparency' framework for the review of nationally determined contributions by all parties alongside some subtle variations in what was expected of developed as opposed to less developed countries. 2023 was agreed as the date for the first of regular five yearly 'global stocktakes' on the adequacy of national efforts. This constituted a vital part of what was a

procedurally, rather than substantively, binding agreement where the Secretariat had indicated that the 'nationally determined contributions' announced by the parties would result in a 2.7°C mean temperature increase.

The EU as climate negotiator

In some ways the EU's leadership in the climate regime was surprising. In this area of shared competence, which involves taxation and energy policy, leadership and representation falls to the rotating Presidency. The EU will negotiate 'at 28' involving the Commission and 27 member states. There have been real problems in ensuring continuity across a complex range of issues in successive negotiation rounds (van Schaik and Egenhofer 2005). In order to cope, particular member states have been allowed to lead on issues on which they have specialized, and the working practice of the Council has been to involve Presidencies over an 18-month cycle (Oberthur and Roche 2008). As with other external policy areas, coordination within the negotiation is required that can take up excessive amounts of time, and irritate interlocutors of the EU. The EU can appear cumbersome and there has sometimes been a lack of agility and flexibility. Climate Conferences of the Parties involve long and complex negotiating sessions at official level but end with a high-level segment in which final political deals are done over outstanding issues arising from an agreed text. High-level involvement can become problematic if there are unresolved issues and attempts are made to short circuit the UN process through an informal deal. Ministers and heads of government can interfere with the EU's operating procedures. The 2009 Copenhagen COP provides evidence of the manifold difficulties faced by the Union.⁸ The Presidency was held by Sweden, but the appearance of heads of government Brown, Merkel, and Sarkozy tended to divert attention and they pursued their own lines of negotiation. When President Obama conferred with the EU it presented itself in the form of Commission President Barroso, Swedish President in Office Reinfeldt, and the UK, French, and German leaders. In these circumstances the previous ability of the EU to function as an entity, to supervise the negotiation of the terms of the Kyoto Protocol, and make a credible claim to climate leadership appear remarkable, but the Copenhagen conference appears to have placed too much strain on the Union's coordinating capabilities. As the Danish chair of the COP and incoming EU Climate Commissioner for Climate Action, Connie Hedegaard remarked:

There are very important lessons from Copenhagen. In the last hours, China, India, Russia, Japan each spoke with one voice, while Europe spoke with many different voices. ... A lot of Europeans in the room is not a problem, but there is only an advantage if we [all] sing from [the] same hymn sheet. We need to think about this and reflect on this very seriously, or we will lose our leadership role in the world.

(Phillips 2010)

Difficulties of internal coordination were far from being the only reason for the EU's disappointing performance in Copenhagen. Much more significant than any organizational or tactical shortcomings were profound changes in the structure of

the international system that had begun to work themselves out in the political dynamics of the climate change regime. The EU's initial rise to prominence in global environmental politics depended to a great degree on the favourable international conditions that flowed from the ending of the Cold War. EU leadership was sustained by the willingness of the countries of Eastern Europe to associate themselves with its policies and by the special position that it held as the largest donor of development aid (when both EU and national programmes are counted) with a set of long-standing relationships with the African, Caribbean, and Pacific Group of States (ACP) countries. Furthermore, its role in climate politics was firmly anchored to its position in the international economic structure—the Union being second only to the USA in the league of carbon emitters. The abdication of the USA from its previous role of environmental leadership left the field open for the EU to assert itself and to emphasize its identity as climate leader. As we have seen, this opportunity was seized in the EU's successful campaign to turn the Kyoto Protocol into a functioning international regime.

However, even at the point of Kyoto ratification it was becoming evident that the underlying international structure was shifting. In general terms this has been associated with the rise of the so-called BRIC countries, Brazil, Russia, India, and China, to which South Africa should also probably be added (see Chapter 17). At the WTO the kind of duopoly that had previously existed between the USA and the EU was no longer evident, reflected in the emergence of the G20. In terms of climate politics even an enlarged EU found itself in third place in terms of current carbon emissions, China having overtaken both Europe and the USA. Up until this point both China and India had been relatively quiescent in climate politics, protected by the common but differentiated responsibilities' formula, which did not require them to make any emissions reductions under the Kyoto Protocol. In the post-2012 discussions this was no longer a tenable assumption and the USA would, in any case, never accept it. The other critical development was the re-engagement of the USA under the Obama Administration. The logic of the situation appeared to suggest that any future climate arrangements would require a comprehensive agreement that abandoned the 'firewall' between Annex I developed countries and the rest. Furthermore, although the G77 and China as non-Annex I countries had previously negotiated as a bloc (and the EU often attempted to mediate between them and the Annex I countries), there was now a clearer distinction between the least developed countries, likely to be the first victims of climate change, and fast-developing new economic powers of the south.

After Copenhagen came a revival of EU climate diplomacy, centred upon the Cartagena Dialogue (van Schaik 2012) which brought together 'progressive' Parties from all the main negotiating groups and provided the basis for the 2011 Durban Platform. This agreement, brokered with some skill by EU delegates, provided the framework within which the 2015 Paris Agreement was formulated. Commentators have detected that the EU's role was increasingly that of a mediator (Bäckstrand and Elgström 2013). Sensitivity towards the development needs of the South and a

willingness to build bridges between them and the harder-line developed countries of the Umbrella Group had long been part of the EU's negotiating repertoire. In the context of a new agreement this was not only significant on account of the need to negotiate with the BASIC countries but also because of an awareness that the impacts of climate change in a vulnerable South required that adaptation be treated as seriously as mitigation.

The French government made a major diplomatic effort to ensure that Paris would succeed where Copenhagen had failed and for its part the EU began the conference by announcing a joint strategy with the 79 ACP countries. EU representatives were soon involved with a 'coalition of high ambition' including the USA and which successfully promoted the inclusion of reference to the 1.5°C target. Paris represented a major departure from the EU's previous commitment to Kyoto-like targets and time-tables and its 'nationally determined contributions' probably represent the only feasible way of constructing a truly comprehensive agreement. Whether it represents anything more than a symbolic success will depend upon the procedures for the encouragement of greater efforts towards de-carbonization and adaptation in which the EU's influence will still be of critical importance.

Conclusion

Environment and climate change have been areas in which the Union has managed to carve out for itself a position of international leadership. The foundation of this achievement was the development of the EU's internal environmental *acquis*, which allowed the attainment of external competences. Over the years the Union has been more successful than might have been predicted in the light of the problems of coordination, competence, and coherence that continue to afflict its external activities even after the entry into force of the Lisbon Treaty.

Climate change poses a very different challenge because of the high economic stakes involved if effective action is to be taken and because of the ways in which it impacts upon the security of the Union. Most particularly it conjoins environmental and energy policy. In the initial stages of involvement in the climate regime the EU was able to claim leadership without the assistance of an internal carbon tax and to agree the Kyoto Protocol under the rather favourable circumstances of the burden-sharing agreement. Kyoto implementation and the search for a post-2012 successor, however, required the serious development of internal energy policy in the ETS and subsequently the 2008 climate and energy package. The latter was only achieved with some difficulty and compromise because of the differing interests of member states. There are evident opportunities and contradictions in EU climate and energy policies and a need to fully involve the European External Action Service in their pursuit. This has received belated recognition in the adoption by the Foreign Affairs Council of a Climate Diplomacy Action

plan' (European Council 2015). The wider context is provided by an attempt to integrate the elements of energy security, economic competitiveness, sustainability, and climate change discussed in this chapter within a new Energy Union (European Commission 2015a).⁹

The evidence in this chapter provides strong support for the three key themes around which this volume centres. First, it is clear that the ways in which the EU has evolved as a (sub)system of international relations have played a key role in conditioning its ability to operate on a broader stage. The development of an internal regime for environmental policymaking and the emergence of an embryonic energy security policy show in different ways the effects of the internal balance of interests and forces on EU external policy. Not only this, but the interaction of environmental and energy policymaking with broader processes of international relations shows the ways in which the EU system is penetrated by broader forces. This leads to our second theme: that the EU has become an indispensable part of the broader processes of regime building and negotiation in climate change and has helped to shape as well as be shaped by these processes. The picture is less clear in energy, partly at least because the development of institutionalized processes in that area is less advanced than in climate change and environmental politics more generally.

Climate diplomacy has also clearly provided an arena in which the EU is a power that compares very favourably with other areas of external action.¹⁰ It proved capable of executing an exemplary strategy of targets and timetables and took responsibility for turning the Kyoto Protocol into a functioning international agreement. This was no mean achievement when operating under shared competence. The ratification process demonstrated an ability to deploy diplomatic assets and to use trade instruments in pursuit of climate policy objectives. As the economic crisis of the European economies deepened, the experience of Copenhagen in 2009 appeared to reveal how far the EU's previous climate leadership rested upon some peculiarly favourable domestic and international circumstances. Confronting many expectations, the Union was again able to play a central role in setting the course towards a new climate agreement in Paris in 2015.

The 2016 decision of the UK electorate to leave the Union will certainly diminish the weight and significance of the EU in international environmental and energy politics. This may become particularly evident in climate negotiations where the UK, alongside Germany, has been a lead state bringing substantial diplomatic, scientific, and technical resources to the Union's collective endeavour. On the other hand, Britain cannot simply be 'unplugged' from European energy and environmental systems and real connections will persist. Here, as elsewhere, much will depend upon the forms of coordination that will be worked out between the Union and the UK in such areas as the continuation of existing environmental directives and emissions trading. The UK government will have to strike a balance between the attractions of independent action and the enhanced power and effectiveness that come from working in consort with the Union.

Notes

- 1 This is also the case for energy policy (Article 4(i)).
- 2 The arguments hinge upon the interpretation of articles in the Lisbon Treaty, Article 216(1), TFEU apparently gives the Union and hence the Commission the right to conduct negotiations where the conclusion of an agreement is necessary to achieve the objectives referred to in the Treaty. A proposed UNEP agreement on mercury provided a test case and internal disagreement meant that the EU failed to state its position at the opening meeting (Frankin 2010).
- 3 This usually proved to be possible but in some instances the existing parties to an agreement failed to alter their rules to admit the Community as well as the member states. A good example is provided by the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora where Union competence is clear. After 40 years the Parties approved the Gaborone Amendment, which admits the Union as an REIO.
- 4 The reference here is to the notorious 'southern agreements' of the CFP where West African governments were persuaded to sell fishing rights to EU trawlers to the detriment of the sustainable development of their own coastal populations. Both the CAP and CFP have been subject to extensive reform to render them more sustainable but both continue to damage the EU's reputation.
- 5 The gases are carbon dioxide, nitrous oxide, and methane, along with three additional industrial gases. The CFCs are also GHGs but are separately controlled under the Montreal Protocol. The Convention also covers reduction by 'sinks', but their inclusion is controversial if it allows avoidance of actual emissions cuts.
- 6 The climate and energy package was subject to co-decision procedures and the final details were negotiated at the level of the European Council with significant concessions being granted to Poland and other East European countries.
- 7 If all the pledges made by Parties under the Copenhagen Accord—including those of the Kyoto second commitment period—are taken together and fully implemented, then the effect by 2020 would be to reduce the 'emissions gap' between the present position and the required trajectory for climate safety (as calculated by UNEP 2013) by more than half, to 8 GtCO₂e (carbon dioxide equivalent). Achieving this would require that conditional pledges are fulfilled and that rule changes are strictly adhered to.
- 8 The chair of the conference was the host state Denmark, which controversially floated its own informal text (widely regarded as embodying the Union's real negotiating position), and replaced its environment minister in the chair by its prime minister, who was himself removed in the final hours by a coalition of countries, including an EU member state.
- 9 This was also reflected in the reorganization of the Juncker Commission in 2014. In 2010 Climate responsibility had passed from DG for Environment to a new DG for Climate Action under Connie Hedegaard. In 2014 this was merged into a DG Climate Action and Energy led by Commissioner Miguel Cabrele, itself part of an Energy Union project team under vice president Maroš Šefčovič.
- 10 This was the conclusion of the European Council for Foreign Relations (2012: 122) that publishes an annual scorecard rating the success or failure of EU external action. The EU achieved a B+ for the Cancun COP in 2010 and a rare A- for the 2011 Durban COP.

FURTHER READING

Deloux (2011) is a book length study of the EU as an international environmental negotiator, while Schubert, Polak, and Kreutler (2016) provide an up-to-date and detailed general study of EU energy policy including a chapter on its external dimensions. A number of collections on climate leadership are beginning to appear—Oberthur and Pallemarts (2010a) along with Wurzel and Connolly (2010) are good examples. Damro (2006), Lightfoot and Burdill (2004), and Vogler (2005) cover the EU in international environmental politics. Falkner (2007) considers biotechnology negotiations and Hadfield (2008a) and Youngs

- (2009) the EU's difficult energy relationship with Russia and other suppliers. The internal dimensions of international leadership is a key theme examined by Schreurs and Tiberghien (2007), while Brertherton and Vogler (2006) consider this from an actor perspective. Jordan *et al.* (2010) brings together some of the latest research on EU climate policymaking along with useful general and historical surveys.
- Brertherton, C. and Vogler, J. (2006) *The European Union as a Global Actor*, 2nd edn, Chapter 4 (Abingdon: Routledge).
- Damico, C. (2006) 'The EU and International Environmental Politics: The Challenge of Shared Competence', in K.V. Laatikainen and K.E. Smith (eds), *The European Union and the United Nations* (Basingstoke: Palgrave Macmillan), 175–92.
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- Falkner, R. (2007) 'The Political Economy of "Normative Power": Europe: EU Environmental Leadership in International Biotechnology Regulation', *Journal of European Public Policy* 14/4: 507–26.
- Hadfield, A. (2008a) 'Energy and Foreign Policy: EU–Russia Energy Dynamics', in S. Smith, A. Hadfield, and T. Dunne (eds) *Foreign Policy: Theories, Actors, Cases* (Oxford: Oxford University Press).
- Jordan, A., Huitma, D., Van Asselt, H., Rayner, T., and Berkhout, F. (eds) (2010) *Climate Change Policy in the European Union: Confronting the Dilemmas of Mitigation and Adaptation* (Cambridge: Cambridge University Press).
- Lightfoot, S. and Burchill, J. (2004) 'Green Hope or Greenwash? The Actions of the European Union at the World Summit on Sustainable Development', *Global Environmental Change* 14/4: 337–44.
- Oberthür, S. and Pallemarts, M. (2010a) 'The EU's Internal and External Climate Policies: an Historical Overview', in S. Oberthür and M. Pallemarts (eds) with C.R. Kelly, *The New Climate Policies of the European Union: Internal Legislation and Climate Diplomacy* (Brussels: VUB Press), 27–63.
- Schreurs, M. and Tiberghien, Y. (2007) 'Multilevel Reinforcement: Explaining European Union Leadership in Climate Change Mitigation', *Global Environmental Politics* 7/4: 113–37.
- Schubert, S.R., Pollak, J., and Kreutler, M. (2016) *Energy Policy of the European Union* (London: Palgrave Macmillan).
- Vogler, J. (2005) 'The European Contribution to Global Environmental Governance' *International Affairs* 81/4: 835–49.
- Wurzel, R. and Connolly, C. (eds) (2010) *The European Union as a Leader in International Climate Change Politics* (Abingdon: Routledge).
- Youngs, R. (2009) *Energy Security: Europe's New Foreign Policy Challenge* (Abingdon: Routledge).



WEB LINKS

The Europa website, <https://europa.eu>, provides the essential point of entry from where you can navigate to the relevant parts of the Commission, DGs Environment, CLIMA, and Energy, as well as the Council and Parliament. There are also useful web pages on specific

topics such as climate change or the marine environment. The European Environment Agency is a mine of information at <http://www.eea.europa.eu>. EU activities and communications on climate change can be found at the official UNFCCC site, <http://unfccc.int>, while this and all other major environmental negotiations are reported in detail by the Earth Negotiations Bulletin, which can be found at the International Institute for Sustainable Development site <http://www.iiisd.org>. For energy and environmental questions there are also two key international organizations, the IEA at <http://www.iea.org> and UNEP at <http://www.unep.org>.