EU Environmental Law and the Internal Market

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OXFORD
UNIVERSITY PRESS

PART I

INTRODUCTION TO EU ENVIRONMENTAL LAW

Part I Introduction

In Part I, we shall analyse the place occupied by environmental requirements in the Treaty on European Union (TEU), the Treaty on the Functioning of the European Union (TFEU), the Charter of Fundamental Rights (EUCFR), and the European Convention on Human Rights (ECHR).

Chapter 1 addresses the environmental requirements set out in both the TEU and TFEU. In particular, a great deal of attention is paid to different EU and TFEU provisions enshrining cross-cutting concepts that are likely to enhance environmental values. Specifically, there will be a discussion of the concept of sustainable development, the various integration clauses, as well as the obligation to achieve a high level of protection with respect to a number of non-tradable interests. As will be seen, these obligations are to a great extent intertwined. In so doing, we shall address the curious relations between environment policy and other policies likely to oppose the internal market.

Environmental issues cannot be restricted merely to technical standards: they prompt important questions of human rights. As will be discussed in Chapter 2, although fundamental rights and environmental interests have developed in parallel, these subjects intersect with increasing frequency.

Chapter 3 addresses the nature of environmental competence as well as the external relations of the EU in the environmental field. It deals with procedurals issues related to the enactment of legislative measures under Article 192 TFEU. Whilst the expansion of EU regulatory action aimed at environmental protection dates back to the start of the 1970s, it has, however, suffered, following the entry into force of the Single European Act, from differences in interpretation regarding the legal basis on which legislation adopted in this area is grounded. Given that environmental issues are entangled with the internal market, health, consumer, industrial, and agricultural issues, a number of legal bases are likely to be considered for adopting environmental measures. However, this debate is not neutral since the choice of legal basis is not simply a question of form but, instead, a question of substance, given that it has a considerable impact on the

directives, regulations, and decisions, which are
asily found on the internet, but to set out the principle sectors and instruments.

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1. Introduction

The discussion in the first chapter will be structured as follows.

Before commenting on each of the TEU and TFEU provisions referring to the environment, it is necessary to consider, in Section 2, what exactly the elusive concept of environment covers.[1]

Section 3 then offers a brief historical perspective of environmental policy in relation to the internal market policy.

In view of Article 3(3) TEU, sustainable development, and hence the objective of environmental protection, cannot be dissociated from the internal market. Paragraph 3 of this provision places these objectives on an equal footing. Consequently, they must be analysed more in terms of reconciliation than of opposition. Moreover, environmental concerns are not isolated; they overlap with other policies that were originally regarded as ancillary to or liable to counter the goals of economic integration. In particular, consumer, health, and environmental policies share a range of common features, up to the point that one can speak of cross-fertilization between them.[2] Sections 4 to 5 offer the opportunity to consider the extent of cross-fertilization between different areas of EU law and, in so doing, they place special emphasis on the bonds uniting environment, consumer, and health policies.

Entirely devoted to the environment, Title XX of the TFEU does not limit itself to confirming the EU's competence in environmental matters: it sets out goals, states principles, and establishes criteria. Accordingly, that title calls for EU action to grow in strength and coherence. It is thus the aim of Sections 6 to 8 to examine in depth the series of goals, principles, and criteria guiding this policy encapsulated in Article 191 TFEU 'which the EU legislature must respect in implementing environmental policy'.[3]

2. Concept of Environment

What exactly is the environment? What is meant by this open concept is, indeed, ripe for discussion. Dating back to the start of the 1970s, the concept of environment is the implicit result of a compromise between two approaches which do not sit comfortably together. Taking things to extremes, one might say that there is, on the one hand, an objective dimension based on scientific criteria (state of species conservation, pollution thresholds, ecosystem approach, sustainable yields, total allowable catches, etc), which seeks to protect the biosphere per se. Thresholds have been established pursuant to scientific analysis classifying ecological risk. Clearly, nature protection law as well as most of water law aim at protecting ecosystems as such. This scientific approach stands in opposition to a subjective vision of relations between mankind and his surroundings (including economic, aesthetic, cultural, and recreational aspects), which focuses more on the quality-of-life dimension than the conditions favourable for life. Consequently, a species may be protected not by virtue of the role it plays within an ecosystem, but on account of its appeal to a broader public or its economic value. As a result, the protection of the biosphere is justified as a function of the interests of mankind.

In this respect, it should be pointed out that measures aiming to reduce noise, odours, air pollutants, as well as radiation, aim chiefly at improving the quality of

[2] As will be shown later, an understanding of the key role played by the precautionary principle in the area of environmental protection calls for a digression into public health. Conversely, the principle would not have been established as a guiding principle in the area of public health had it not originally been established in relation to environmental matters. By the same token, sustainable development appeals to consumer law.

[3] Case C-341/95 *Bettati v Safety Hi-Tech* [1998] ECR I-4355, para. 34.

shrined under the ECHR are first generation rights. By the same token, in recogniz- ; that 'the environment is not an abstraction but represents the living space, the ality of life and the very health of human beings, including generations unborn', the ernational Court of Justice (ICJ) has also endorsed an anthropocentric approach.[4] Leaving aside this latent tension between two opposing viewpoints, one could well : what is still natural about a heavily 'artificialized' world. How can we distinguish : environment from nature, from ecology, or from biology? Anxious to consume ural products, the uninitiated will fall into the depths of confusion on reading some the judgments handed down by the Court of Justice in that regard.

For instance, the use in most Member States of the term 'bio' for goods not produced m organic agriculture will not mislead Spanish consumers, since goods produced m this type of agriculture are in general referred to using the term '*ecológico*'.[5] ilarly, notwithstanding the presence of traces of lead, cadmium, and pesticides, the m 'naturally pure' used on jars of jam will not be misleading for Austrian con- ners.[6] In addition, the accidental presence of material derived from certain genet- ly modified organisms (GMOs) not exceeding a particular level in baby food is not ject to specific labelling requirements.[7] Finally, although it adversely affects the egrity of a Natura 2000 site, the conversion of a natural fluvial ecosystem into a gely man-made structure in Northern Greece can be justified on the ground that it y, in some circumstances, have beneficial consequences of primary importance for environment'.[8] Given the severity of the impact of irrigation projects on the natural ironment, the position of the Court on this question is controversial.[9]

As far as Treaty law is concerned, the concept of environment appears in several visions of Treaty law—Articles 3(3) and 21(2)(d)–(f) TEU, Articles 11, 114(3), (4), (5), 191–193, and 194(1) TFEU—without, however, being defined, no doubt out of of circumscribing its scope to overly specific areas. Likewise, EU secondary law s little attention to defining what is meant by the term 'environment'. Attempts to ne the boundaries of the concept often involve its enumeration through examples.[10]

Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion [1996] ICJ Rep. 29.
Case C-135/03 *Commission v Spain* [2005] ECR I-6906, paras 36–41.
Case C-465/98 *Adolf Darbo* [2000] ECR I-2321, para. 33.
Case C-132/03 *Cadocons* [2005] ECR I-4167.
Case C-43/10 *Nomarchiaki Aftodioikisi Aitoloakarnanias e.a.* [2012] OJ C355/2, para. 125.
Indeed, 'irrigation and drainage projects invariably result in many far-reaching ecological changes', of which 'cover the entire range of environmental components, such as soil, water, air, energy, and the economic system'. See the Food and Agriculture Organization (FAO) and Overseas Development inistration (ODA), *FA O Irrigation and Drainage Paper 53* (Rome: FAO, 1995) 1.
But a few EU secondary law acts determine what the concept of environment should encompass. See ctive 2011/29/EU on the assessment of the effects of certain public and private projects on the onment [2012] OJ L26/1, Art. 3; Commission Regulation (EC) No. 800/2008 declaring certain gories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty ieral block exemption Regulation) [2008] OJ L214/3, Art. 17; European Parliament and Council ulation (EC) No. 1107/2009 concerning the placing of plant production products on the market 9] OJ L309/1, Art. 3(13). See also the Aarhus Convention on Access to Information, Public Participa- in Decision-making and Access to Justice in Environmental Matters (Aarhus, 25 June 1998), Art. 2(3).

everyone may be agreed on the core of what is meant by the concept of environment, disputes arise about the boundaries surrounding the core content. If there is a catch-all concept, then this is it. Immune to all efforts at legal classification, this chameleon-like concept may be limited under a narrow reading to NIMBY (not in my back yard) factors, whilst read more broadly it may be coterminous with the biosphere. Furthermore, it continuously overlaps with other concepts, such as ecology, nature, biodiversity, public health, worker protection, land use, living surroundings, or sustainable development, which nevertheless have not succeeded in taking its place. Despite this, EU institutions as well as Member State authorities continue to rely on the concept of environment.

From a legal perspective, the concept may not be ideal but it is the best we can do under the circumstances. First, the fact that the boundaries of this policy are not marked out with even a basic degree of precision enables EU lawmakers to extend their initiatives to a broad array of areas, reaching from nature conservation to the fight against global warming. However, such a broad scope is likely to give rise to conflicts with other EU policies.[11] Second, the use of a flexible notion has turned out to be indispensable because an excess of detail would render it quickly obsolete. In effect, this relative notion is strongly dependent on its context and its historical setting. Indeed, as understood in the twenty-first century, the concept of environment is much more substantial than that of the twentieth century. The issue now covers questions that were ignored until a short time ago, such as global warming, GMOs, product life-cycle analysis, or electromagnetic radiation. Last, but not least, given that natural habitats are shrinking, sea levels are rising, glaciers are melting, fish stocks are fished to the limits of their reproductive capacity, and rare natural resources are depleted, new issues are likely to gather momentum in the near future.

3. Stages of Integration of Environmental Requirements in Treaty Law

The relatively complex legal framework in which EU action in environmental matters is carried out requires a brief discussion of the principal stages of the integration of environmental concerns into the Treaty establishing the European Economic Community (EEC Treaty) and later into the European Community Treaty (EC Treaty) and the TFEU, taking into account the amendments which have been made to primary law since the late 1980s (the Single European Act (SEA), Maastricht, Amsterdam, Nice, and Lisbon).[12]

[11] See the discussion in Ch. 3, Section 4 below.
[12] See J. Holder and M. Lee, *Environmental Protection Law and Policy*, 2nd edn (Cambridge: CUP, 2009) 155–71; J. Jans and H. Vedder, *European Environmental Law*, 4th edn (Groeningen: Europa Publishing, 2012) 3–13.

3.1 From the Treaty of Rome to the Single European Act: the shaping of the environmental policy

The original Treaty of Rome was drafted at a time when environmental questions did not arise as such. Whereas the original objectives of the Treaty emphasized an essentially economic project,[13] it contained no general reference to consumer, health, or environmental protection. The absence of such provisions reflected the unimportance of these issues at the time the Treaty was drafted.

Given that many contemporary environmental problems—acid rain, transboundary watercourse management, eutrophication, conservation of migratory species, ozone depletion—are transboundary in nature, it came as no surprise that in the 1970s the EEC became the most relevant regional organization to address these issues.[14] The absence of provisions establishing specific Community competence over the fight against pollution did not prevent the Heads of State and Government from agreeing on the necessity to take action to save the environment when that issue became salient. The Declaration of the Council of the European Communities and of the representatives of the Governments of the Members States of 22 November 1973 stressed that the promotion of 'a harmonious development of economic activities and a continuous and balanced expansion' cannot be imagined 'in the absence of an effective campaign to combat pollution and nuisance' or 'the improvement in the quality of life and the protection of the environment'.[15] As a result, economic expansion, expressly mentioned as a goal of the Community under former Article 2 EEC, had to go hand in hand with environmental protection. Hence, economic growth was not to be assessed exclusively in quantitative terms but also qualitatively.

The 1973 Declaration marked the beginning of EU environmental policy. Against that background, the Commission enacted the first environmental action programme[16] and the Council adopted, at the beginning of the 1970s, the first directives which paved the way for the expansion of Community environmental policy. In the absence of specific legal bases, and prior to the entry into force of the SEA, the Council was obliged at times to base its intervention on Article 100 EEC (Art. 94 EC, Art. 113 TFEU),[17] and at other times on Article 235 EEC (Art. 308 EC, Art. 352 related to the functioning of the common market, that legal basis was chosen by the Council in order to adopt a number of environmental directives laying down technical standards for the placing on the market of hazardous products. Clearly, environmental issues have been intricately related to the functioning of the common market since the early 1970s.

However, both Articles 100 and 235 EEC also represented a significant obstacle to the expansion of a policy area which became mired in disputes; the requirement of unanimity within the Council placing a considerable brake on the implementation of an ambitious EU policy.[19] This explains why Community law was first of all the result of compromises between, on the one hand, Member States supporting a reinforced environmental policy and, on the other, States in favour of a less integrated policy. Furthermore, the adoption of environmental directives on the basis of these provisions was criticized on the ground that the EEC did not enjoy any genuine competence to deal with such matters, since it was not listed under the tasks conferred on the EEC pursuant to former Article 3 EEC and, at most, its competence was limited to regulating questions directly associated with the elimination of restrictions on intra-Community exchanges.[20] The European Court of Justice (ECJ) rapidly put an end to the doubts that hung over the legality of this competence. In a landmark judgment, the Court held that 'it [was] by no means ruled out that provisions on the environment may be based upon Article [115 TFEU]' (ex Art. 100 EC).[21] In any event, the intervention of the Community was justified by the fact that 'provisions which are made necessary by considerations relating to the environment and health may be a burden upon the undertakings to which they apply and if there is no harmonization of national provisions on the matter, competition may be appreciably distorted'.[22] Later, the Court of Justice had to solve the question whether environmental considerations could override one of the fundamental principles of the EEC, the free movement of goods. The Court expressed the view that a directive on the disposal of waste oils had to be 'seen in the perspective of environmental protection, which is one of the Community's essential objectives'[23] and, thus, justified that restrictions were imposed on the 'fundamental principles of Community law',[24] which consist of the 'principles of free

[13] Pursuant to Art. 2 EEC, the European Economic Communities were aiming at 'an harmonious development of economic activities, a continuous and balanced expansion ... an accelerated raising of the standards of living'.

[14] It should be recalled that other international organizations have played a key role in Europe as regards environmental protection. Eg the 1979 Geneva Convention on Long-Range Transboundary Pollution has been adopted under the auspices of the UN Economic Commission for Europe and the 1979 Berne Convention on the Conservation of European Wildlife and Natural Habitats has been adopted under the auspices of the Council of Europe.

[15] Bulletin EC 1972, No 10.

[16] Five additional programmes have been enacted, setting out roadmaps for EU environmental policy. By virtue of Art. 192(3) TFEU, the environmental programme has to be adopted pursuant to the ordinary legislative procedure. With the exception of research and trans-European networks (Arts 172 and 182 TFEU), no other EU policy programmes are subject to the ordinary legislative procedure.

[17] Several directives were enacted under Art. 100 EEC, see Council Directive 73/404/EEC relating to the approximation of the laws of the Member States relating to the detergents [1973] OJ L347/51 and Council Directive 76/769/EEC on dangerous substances [1976] OJ L262/201.

[18] This allowed the Council to adopt, on the basis of ex Art. 234 EEC, measures less directly bound to the common market, such as those relating to the protection of flora and fauna. See, eg, Council Directive 79/409/EEC on the conservation of wild birds [1979] OJ L103/1.

[19] The rule of unanimity required by Arts 100 and 235 EEC allowed each Member State to block or delay the adoption of any Commission proposal, or even to negotiate its adherence by obtaining important concessions. However, Member States opposing harmonization were more keen on gaining concessions rather than vetoing the Commission's proposal. See D. Chalmers, 'Inhabitants in the Field of EC Environmental Law' in P. Craig and Gráinne de Búrca (eds), *The Evolution of EU Law* (Oxford: OUP, 1999) 658.

[20] E. Grabitz and C. Sasse, *Umweltkompetenz der Europäischen Gemeinschaften* (Berlin: E. Schmidt, 1977) 93; G. Close, 'Harmonization of Laws. Use or Abuse of Power under the EEC Treaty' (1978) 3 *EL Rev* 461.

[21] Cases C-91 & 92/79 *Commission v Italy* [1980] ECR I-1099 and 1115.

[22] *Commission v Italy* (n 21).

[23] Case C-240/83 *Association de Défense de Brûleurs d'Huiles Usagées (ADBHU)* [1985] ECR I-531, para. 13.

[24] *ADBHU* (n 23), para. 15.

judgment lies in the fact that the Court had for the first time recognized environmental protection as an 'essential objective'. Later, as with the areas of health and consumers, the case law of the ECJ listed environmental issues as one of the mandatory requirements authorizing restrictions to be placed on the free movement of goods enshrined in ex Articles 30–36 EEC (Arts 34–36 TFEU).[26] These societal values were thus recognized at the expense of market integration.

3.2 The Single European Act: the recognition of a new Community competence

Although there was already, in the course of the 1980s, extensive secondary legislation covering water and air, noise, chemicals, waste, and nature protection, there were no specific environmental competences in the Treaty. With a view to filling this gap, the SEA baptized in 1987 EEC environmental policy as a new Community competence under three heads:

- pursuant to ex Article 3 EEC, as autonomous EEC action, the protection of the environment was now recognized as a fully fledged EEC objective;
- pursuant to ex Article 130r EEC (Art. 191 TFEU), as a compulsory element of other policies pursued by the EEC;
- and, finally, pursuant to ex Article 100a(3) EEC (Art. 114(3) TFEU), as a specific element in the completion of the internal market.

For the first time, environmental obligations were encapsulated in the Treaty. The SEA clarified to some extent the choice of the legal basis: environmental measures not related to the common market no longer needed to be founded on Article 235 EEC. They had to be adopted by the Council under a specific new legal basis: Article 130s EEC (Art. 192 TFEU). This provision allowed for a shift away from the classical common market integration process towards a much more flexible and decentralized process at the cost of uniform harmonization.[27] However, environmental policy lagged behind the internal market because of the unanimity rule in the Council. In many instances, the unanimity requirement was forcing the Council to decide on the basis of the lowest common denominator. In particular, the unanimity rule hampered the development of a consistent regulatory approach to the release of hazardous substances into surface water.[28]

That aside, the SEA was of major significance for the internal market. First, ex Article 14 EEC provided that the activities of the Community shall include an internal market characterized by the abolition, as between the Member States, of obstacles to the free movement of goods, persons, services, and capital. Second, harmonization was

[25] *ADBHU* (n 23), para. 9. [26] See the discussion in Chapter 5, Sections 4 and 6.
[27] I. von Homeyer, 'The Evolution of EU Environmental Governance' in J. Scott (ed.), *Environmental Protection. European Law and Governance* (Oxford: OUP, 2009) 15.
[28] M. Pallemaerts, *Toxics and Transnational Law* (Oxford: Hart Publishing, 2003).

the other, by cooperation procedure making the European Parliament a key institutional player. Third, economic integration gathered momentum on account that the SEA took stock of the Commission's willingness to complete the internal market before 1992. As a result, thanks to the implementation of the White Paper, *Completing the Internal Market*,[30] a swathe of directives adopted prior to 1992 removed physical, technical, and fiscal barriers to trade whereas environmental law obviously lagged behind. Moreover, given that the new Article 100a(3) EEC required the Commission's proposal to seek a high level of environmental protection, the genuine internal market basis—Article 100a(1) EEC—has been increasingly used for much of the harmonization of environmental product standards.[31] As discussed in Chapter 3, these institutional discrepancies led to boundary disputes between ex Article 100a(3) EEC and other Treaty provisions, among which was the environmental legal basis. As a result, a number of concerns were voiced regarding the continuous expansion of economic integration to the detriment of other policies, including the new environmental policy.[32]

3.3 From Maastricht to the Lisbon Treaty: the consolidation of EU environmental policy

Subsequently, competences over environmental matters as well as the internal market were expanded in 1992 by the Maastricht Treaty, when the EEC became the EC. Two developments deserve attention.

First, environmental policy made headway through a clearer statement of objectives and, within the Council, the replacement of unanimity by qualified majority voting according to cooperation procedure. Thus, the national veto was dropped from the new Article 175(1) EC, replacing ex Article 130s EEC, although some environmental matters still remain subject to unanimous Council decisions. However, environmental policy was still lagging behind the internal market. Indeed, the new co-decision procedure applied to internal market harmonization (Art. 95 EC, replaced by Art. 114 TFEU) was more favourable to the European Parliament than the cooperation procedure applied to environmental harmonization (Art. 175 EC, replaced by Art. 192 TFEU). Accordingly, in institutional terms, the European Parliament was therefore more keen on the internal market harmonization process than on the environmental one.[33] Furthermore, Member State powers to derogate from internal market measures were clarified, although their powers remain quite limited. As regard other societal values, account must be taken of the fact that the Maastricht Treaty introduced a

[29] Given that unanimity was previously required under Art. 100 EEC, common market harmonization was often victim 'to the varying interest and preferences of Member States, and the bargaining and horse-trading, that often led to lowest common denominator decisions'. Eg M. Egan, *Constructing a European Market* (Oxford: OUP, 2001) 66.
[30] White Paper, *Completing the Internal Market*, COM(85) 310.
[31] Von Homeyer (n 27), 11–14.
[32] P. Craig, 'The Evolution of the Single Market' in C. Barnard and J. Scott (eds), *The Law of the Single European Market* (Oxford: Hart Publishing, 2002) 25–7.
[33] Case C-187/93 *European Parliament v Council* [1994] ECR I-2857.

their lifestyles impact on the environment, consumers can play a key role.

Second, the Maastricht Treaty has also introduced a general subsidiarity principle applicable to all areas of Community activities,[34] the impact of which would be to decrease in the long run the involvement of the Union in environmental matters.[35]

In 1997, thanks to the replacement under the Treaty of Amsterdam[36] of the co-operation procedure with co-decision, which has a decidedly more democratic character, environmental policy has finally been placed, from an institutional point of view, on an equal footing with internal market policy. Whereas the European Parliament's amendments were previously ignored by the Commission and the Council, thanks to its new legislative powers, the European Parliament sought rather successfully substantial amendments of the Commission's proposals. Nonetheless, the unanimity clause for some environmental competences (land planning, ecotaxes, etc) still remains.

Neither the Treaty of Nice, nor the draft Constitution, nor the Lisbon Treaty (TEU and TFEU)[37] introduced any significant developments to these arrangements.[38]

As will be seen in the following section, the TEU as amended by the Lisbon Treaty has been slightly recasting the concept of sustainable development. For its part, the TFEU simply endorses, as far as environmental protection is concerned, the institutional choices adopted by the framers of the reforms stretching from the SEA to the Treaty of Nice. It should be stressed that the *passerelle* clause which is set out in Article 192(2) TFEU could allow the application of the ordinary legislative procedure to matters that are currently covered by the special legislative procedure. Of particular salience is the fact that a new common energy policy saw the light of the day under the Lisbon Treaty. Pursuant to Article 191(1), fourth indent TFEU, the energy policy has thus to 'promote energy efficiency and energy saving and the development of new and renewable forms of energy'—issues that have so far been harmonized by virtue of environmental competence.[39] Finally, the inclusion of judicial cooperation in criminal matters in the first pillar (Arts 82–89 TFEU) should put an end to the institutional controversies opposing the partisans of the first and third pillar.[40]

Whilst they may not amount to a revolution, these successive adjustments are testament to the growing importance which environmental protection enjoys within the European project, an issue which touches directly on the lives of European citizens, on behalf of whom the EU claims to be acting. As a result, the EU Courts have

[34] Prior to the Maastricht Treaty, the subsidiarity principle was applicable by virtue of Art. 130r(2) exclusively to EEC environmental policy.

[35] See the discussion in Chapter 3, Section 2.2.

[36] The Treaty of Amsterdam led to the renumbering of Treaty provisions.

[37] The concept of European Community has been replaced throughout the Treaties by the EU. In addition, the Treaty of Lisbon led to a second renumbering of the provisions embodied in these two Treaties.

[38] Indeed, these arrangements were little changed by the Lisbon Treaty. See M. Lee, 'The Environmental Implications of the Lisbon Treaty' (2008) 22:2 *Env L Rev* 131–8; H. Vedder, 'The Treaty of Lisbon and European Environmental Law and Policy' (2010) 22:2 *JEL* 285–99.

[39] European Parliament and Council Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport [2003] OJ L123/43.

[40] See Chapter 3, Section 4.7.

environmental protection has become one of the essential objectives of the EU.[41] In so doing, the European Courts have been endorsing the same line of reasoning as both the ICJ[42] and the ECtHR[43] which had also recognized the importance of the environment. Additionally, this brief historical analysis highlights the extent to which the development of environmental policy with other societal values, such as in the areas of health and consumers, has been intricately related to the establishment and functioning of the internal market, even if this may be at its expense.

4. Sustainable Development

4.1 Introductory remarks

The initial task of environmental law was, during the first three decades of its existence, to curb impacts, contamination, and pollution through the harmonization of administrative regulations and practices. In this regard, the law governing listed installations and industrial pollution still occupies a core position within this branch of law.

However, this initial approach sidelined issues concerning, first, the extraction of natural resources—since the potential for exploitation appeared to be unlimited—and, second, the incessantly growing consumption of goods and services. However, the availability of natural resources is not unlimited and the absorption capacity of sinks may quickly be exceeded. The record of environmental policy remained modest precisely as a result of its inability to regulate the exploitation of natural resources and the consumption of goods and services. What, indeed, is the point of equipping cars with new technologies if the number of cars and of kilometres travelled is constantly on the increase? What interest is there in subjecting aviation to a regime of greenhouse gas emission quotas if air transport continues to grow? What interest is there to designate nature sanctuaries around cities if land planning policies fall short of preventing urban sprawl? Conversely, environmental protection measures have been criticized on account that they are at best indifferent, and at worst hostile, to economic development and social aspirations.

At the outset, the concept of sustainable development has been forged in an attempt to reconcile the needs of development with environmental protection. Sustainable development has been defined by the World Commission on Environment and Development (WCED) as 'a development that meets the needs of the present without compromising future generations to meet their own needs'.[44] The underlying idea was

[41] Case 240/83 *ADBHU* [1985] ECR 531, para. 13; Case 302/86 *Commission v Denmark* [1988] ECR 4607, para. 8; Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, para. 32; and Case C-176/03 *Commission v Council* [2005] ECR I-7879, para. 41. See also Opinion AG Misho in Case C-513/99 *Concordia Bus Finlandia* [2002] ECR I-7213, para. 92; and Opinion AG Geelhoed in Case C-230/03 *Commission v Austria* [2005] ECR I-9871, para. 2.

[42] The ICJ held that it had 'no difficulty in acknowledging that the concerns expressed by Hungary for its natural environment in the region' affected by a dam project related to an 'essential interest' of that State (*Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* [1997] ICJ Rep. 41, para. 53).

[43] See *Hamer v Belgium*, 27 November 2007, para. 79.

[44] WCED, *Our Common Future* (Oxford: OUP, 1987) 86.

development projects providing jobs and amenities for the present generation and, on the other, the need to conserve a sufficient amount of natural resources for future generations. Since its proclamation in 1987, sustainable development has been gathering momentum from a swathe of international declarations and academic writings. Since then, it has been encapsulated into a flurry of international and national law.[45] Given the challenges related to energy security, rising climate change, food safety, biodiversity loss, illegal immigration prompted by natural disasters, and the limited amount of natural resources that are heavily exploited, the importance of sustainable development is even more obvious today than 20 years ago.

Sustainable development obliges us to rethink environmental law, although according to the academic literature, in international law this concept bears a greater resemblance to a political objective than a legal principle.[46]

Since it is made up of three heads (social, environmental, and economic), sustainable development represents a delicate balancing of competing social, economic, and environmental interests. Indeed, according to the ICJ's case law, 'this need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development'.[47] As a result, sustainable development requires commercial law, competition law, consumer law, environmental law, and worker protection law to interact. Similarly, the dialogue between law and science, economic development and the preservation of natural resources, and the regulation of access to resources and our consumer society, must find the green shoots of a solution under the egis of this type of rule that is dedicated par excellence to the reconciliation of competing interests. What is more, given that 'environmental law and the law on development stand not as alternatives but as mutually reinforcing', there is a duty under international law 'to prevent, or at least to mitigate' significant harm to the environment.[48]

We are taking the view that acting under the impetus provided by sustainable development, environmental law should intervene at times more upstream and at other times more downstream. We will consider first upstream intervention. Since the exploitation of natural resources is not infinite, it is necessary to exploit them in a sensible manner since it is senseless to squander precious resources. Hence, Article 191(1) TFEU requires 'a prudent and rational use of natural resources'. However, despite much debate and a flurry of political initiatives, the EU still lacks a clear political and legal approach regarding natural resource use.[49] Turning now to

[45] M.-C. Cordonier Segger and A. Khalfan, *Sustainable Development Law* (Oxford: OUP, 2004).

[46] V. Lowe, 'Sustainable Development and Unsustainable Arguments' in A. Boyle and D. Freestone (eds), *International Law and Sustainable Development* (Oxford: OUP, 1999) 19; D. French, 'Sustainable development' in M. Fitzmaurice et al. (eds), *Handbook on International Environmental Law* (Cheltenham: Edward Elgar, 2010) 56.

[47] *Gabčíkovo-Nagymaros Project* (*Hungary v Slovakia*) [1997] ICJ Rep. 7, 140. See also *Arbitration regarding the Iron Rhine Railway* (*Belgium v Netherlands*), Arbitral Award of 24 May 2005, para. 222, *Pulp Mills on the river Uruguay* (*Argentina v Uruguay*) [2010] ICJ Rep. 7, 177.

[48] *Arbitration Regarding the Iron Rhine Railway* (*Belgium v Netherlands*), Arbitral Award of 24 May 2005, para. 58.

[49] The 2002 6th Environmental Action Programme (6EAP) identified natural resources and waste as one of four key priority areas for the next decade. With the aim of fleshing out the 6th EAP objectives, in 2005, the Commission alongside a Thematic Strategy on Waste Prevention and Recycling, to take forward these aims. These thematic strategies form the cornerstone of EU natural resources policy to date. More recently, the EU's economic strategy, 'Europe 2020', focuses on resource efficiency ('Resource Efficient Europe'). However, this strategy falls short of explaining how efficiency is to be understood or how it can be achieved. A resource efficiency 'roadmap' to 2050 is expected from the European Commission. Furthermore, few legislative acts on products place emphasis on natural resource management. On a more positive note, the Ecodesign Directive (2009/125/EC) replacing Directive 2005/32/EC includes provisions relating to resources aspects, such as water consumption in the use phase, the quantities of a given material incorporated in the product, or a requirement for minimum quantities of recycled material.

exploitation of natural resources and the succession of negative impacts on the environment which this exploitation engenders. Accordingly, sustainable development impinges upon consumption of goods and services.

4.2 Legal status

Despite the success which it has met in international circles, the concept of sustainable development has encountered difficulty establishing itself under Treaty law. At the outset, under the Maastricht Treaty, the Union was called on to promote 'sustainable and non-inflationary growth' rather than 'sustainable development' in its own right.[50] However, with the entry into force of the Treaty of Lisbon, the concept of sustainable development was later recognized as one of the main objectives pursued by the EU. The concept is currently enshrined in Articles 3(3)–(5) and 21(2)(d)–(f) TEU, Article 11 TFEU, as well as Article 37 EUCFR.[51]

The third paragraph of Article 3 TEU runs as follows: 'The Union ... shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.' Moreover, pursuant to paragraph 5 of that provision as well as Article 21(2)(d) TEU, sustainable development is one of the cornerstones of EU external policy.

In addition, sustainable development is also encapsulated in both Article 11 TFEU and Article 37 EUCFR without, however, being defined. Under these two provisions, sustainable development is set out as the objective that environmental policy must pursue. Article 11 TFEU (ex Art. 6 EC) provides that: 'Environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development'. By the same token, by virtue of Article 37 EUCFR 'a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the

[50] Formerly, sustainability was linked to economic growth. That link was maintained under the Maastricht and the Amsterdam Treaties. Pursuant to the Maastricht Treaty, 'The Community shall ... promote sustainable and not-inflationary growth respecting the environment' (Art. 2 EC). Similarly, pursuant to the Amsterdam Treaty, sustainable development was linked to economic activities (Art. 2 EC). However, new economic treaties do not enshrine sustainability requirements. Eg the inter-governmental treaty adopted on 1 March 2012 on Stability, Coordination and Governance in the Economic and Monetary Union refers to 'economic growth through enhanced convergence and competitiveness' (Art. 9).

mentions 'policies' and not 'activities'.

Six issues arise for comment here.

First, in contrast to the dissipation and lack of precision in the references to sustainable development in the previous Treaties, this third paragraph of Article 3 TEU expresses the tripartite nature of the concept in much clearer terms. However, Treaty law is silent as regards the equitable allocation of resources both within the present generation and between the present and future generations, as well as other duties such as the right to development.

Second, it should be stressed that sustainable development does not appear in Title XX TFEU on environmental policy but in different provisions of the TEU, in Article 11 TFEU, and in the EUCFR. By introducing a social and economic dimension, sustainable development thus broadly moves beyond traditional environmental issues.[52] What is more, whereas environmental protection involves a defensive stance against the depletion of natural resources and pollution, sustainability entails a proactive approach in requiring the integration of environmental requirements into economic growth.

Third, the fact that sustainable development is encapsulated in three different provisions situated at the apex of the EU legal order does not mean that its legal status is not dogged by controversy.[53] For instance, given that sustainable development has been coined both as an objective and a principle, there was obviously no clear concept of what sustainable development meant from a legal point of view when these various provisions were drafted.[54]

Fourth, the Treaty provisions do not determine the substantive and procedural components of sustainable development. Nonetheless, it could be argued that Articles 11 and 191(1) TFEU already encapsulate some elements, such as the duty to integrate environmental concerns into other policies and the 'rational' utilizations of natural resources.[55]

Fifth, clearly this concept is characterized by a strong degree of indeterminacy. Though few institutions and Member States will contend with the proposition that development should be sustainable, they might disagree on how to flesh out this proposition in individual cases. Given the significance of the social, economic, and environmental value judgements involved in deciding what is sustainable,[56] institutions are indeed endowed with broad discretion in giving effect to Article 3(3) TEU,

[52] The somewhat confusing dividing line between sustainable development and traditional economic development is likely to impinge on the choice of legal base. By way of illustration, the Council granted a Community guarantee to the European Investment Bank against losses under loans and loan guarantees for projects outside the Community. In a case regarding the legal base of that decision, the Court of Justice held that the act at issue fostered the sustainable economic and social development of developing countries, notwithstanding the fact that other components of that act concerned economic, financial, and technical cooperation with third countries other than developing countries. As a result, the decision fell under Art. 179 EC (Art. 208 TFEU) as well as under Art. 181a EC (Art. 212 TFEU). See Case C-155/07 *Parliament v Council* [2008] ECR I-8103, para. 67.

[53] As regard international law, see eg P. Birnie, A. Boyle, and C. Redgwell, *International Law and the Environment*, 3rd edn (Oxford: OUP, 2009) 124.

[54] L. Krämer, 'Sustainable Development in EC Law' in H.-C. Bugge and C. Voigt (eds), *Sustainable Development in International and National Law* (Groeningen: Europa Law, 2008) 378.

[55] See the discussion in Section 5.

[56] Birnie, Boyle, and Redgwell (n 53), 126.

Article 3 TEU may not impose binding obligations, it nevertheless spells out a political imperative: the 'high level of protection and improvement of the quality of the environment' now has the same status as the objective, for example, of 'economic growth and price stability' (economic pillar) as well as with that of 'full employment and social progress' (social pillar of sustainable development). Given that these three components must be seen as interdependent and mutually reinforcing, the main objective of promoting economic growth and social progress must be viewed from a balanced and sustainable perspective. Since no hierarchy is provided for between these different pillars, they constitute an inseparable whole and cannot therefore be interpreted in isolation from one another. As a result, economic growth cannot be achieved without the promotion of the two other components, and environmental protection should constitute an integral part of that development. By the same token, both environmental and labour protection requirements are likely to reinforce each other. By way of illustration, energy from biofuels should be taken into account only if it fulfils different sustainability criteria.[57]

This interpretation appears to be consistent with settled case law. Account must be taken of the fact that the Court of Justice has already held that the Union has not only an economic but also a social purpose.[58] Accordingly, the rights under the provisions of the Treaty on the free movement of goods, persons, services, and capital must be balanced against the objectives pursued by social policy.[59]

The sixth issue to be addressed is whether sustainable development necessarily enhances environmental protection. In fact, the main attraction of this concept is that 'both sides in any legal argument will be able to rely on it'.[60] The interpretation given by Advocate General Léger to sustainable development in his Opinion in *First Corporate Shipping*, a case on development taking place in protected birds habitats, is testament to a conciliatory approach. Indeed, the Advocate General stressed that 'the concept "sustainable development" does not mean that the interests of the environment must necessarily and systematically prevail over the interests defended in the context of the other policies pursued by the Community... On the contrary, it emphasizes the necessary balance between various interests which sometimes clash, but which must be reconciled'.[61] In addition, the manner in which Article 3(3) TEU has been

[57] Both for third countries and Member States that are a significant source of raw material for biofuel consumed within the EU, the Commission has been called on to issue a report addressing the respect of land use rights and the implementation of various ILO conventions. See European Parliament and Council Directive 2009/30/EC amending Directive 98/70/EC as regards the specification of petrol, diesel, and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions [2009] OJ L140/88, Art. 7b(7).

[58] Case 43/75 *Gabrielle Defrenne v Sabena* [1976] ECR 455, para. 12.

[59] See Case C-438/05 *Viking Line* [2007] ECR I-10779, para. 79; Case C-341/05 *Laval* [2007] ECR I-11767, para. 105; and Case C-319/07 *3F* [2009] ECR I-5963, para. 58.

[60] Birnie, Boyle, and Redgwell (n 53), 116. Under Art. 12 of the Kyoto Protocol, Clean Development Mechanisms (CDM) have to fulfil a sustainability test set out by the receiving State. In spite of their significant environmental impact, large hydroelectric projects in China and India made up more than a quarter of all CDMs and accordingly were deemed to be sustainable. See A. Vassa, *The Effectiveness of the Clean Development Mechanism. A Law and Economic Analysis* (Rotterdam, 2012) 142.

[61] Opinion AG Léger in Case C-371/98 *First Corporate Shipping* [2000] ECR I-9235, para. 54.

drafted does not reflect the postulate that each pillar has to be oriented towards the needs of future generations. As a result, these needs do not necessarily trump the right to economic development. It follows that environmental concerns risk being laid aside in the name of reconciliation stemming from the three-pillar structure.[62] By way of example, in the event of conflict between growth and environmental protection, compromise must be found and necessary environmental measures could be discarded. That aside, it is submitted that sustainable development should not water down basic environmental requirements. In effect, pursuant to Article 3(3) TEU and Article 191(2) TFEU, the tasks of the EU include the requirement to attain a 'high level of protection and improvement of the quality of the environment'. Section 7.2 will provide a detailed analysis of the legal status of the obligation to achieve a high level of environmental protection.

4.3 Case law

So far, the Court of Justice and the General Court have barely referred to sustainable development. By way of illustration, according to the Court of Justice, preventing further accumulation of small arms and light weapons in Africa permits the promotion of sustainable development in the region.[63] More recently, the Greek Council of State sought to ascertain whether the Habitats Directive, interpreted in the light of the objective of sustainable development, could allow the conversion of a natural fluvial ecosystem into a largely man-made fluvial and lacustrine ecosystem, irrespective of the negative impacts on the integrity of sites that are part of the Natura 2000 network. The Court of Justice took the view that the Habitats Directive, and in particular its mechanism allowing projects likely adversely to affect the integrity of a Natura 2000 site interpreted in the light of the objective of sustainable development, permits such a project.[64] Nonetheless, the Court stressed that such a project can be authorized inasmuch as the conditions for granting the derogation were satisfied—conditions which have so far been interpreted rather narrowly.[65]

It is doubtful whether the concept of sustainable development is akin to the general principles of EU law, such as proportionality and subsidiarity, that enable the EU Courts to review the powers of the institutions. However, it may be akin to the concept of constitutional objective found in French and Belgian constitutional law.[66]

4.4 Secondary law

Since 1992, sustainable development issues have become pre-eminent on the policy agenda. For instance, the Europe 2020 Strategy is geared towards a green vision of the economy. As a consequence, a flurry of [illegible] related to sustainable development.[67]

Although the establishment of the concept amounts to an important step forward in taking ecological imperatives into account, it still needs to be endowed with a content that measures up to its ambitions and which can actually be applied within the various EU policies likely to contribute to the deterioration of the environment. As far as secondary legislation is concerned, sustainable development and its offshoot, the integration clause,[68] tend to favour the establishment of rules intended to protect the environment beyond the confines of environmental law in more peripheral domains such as research, agriculture, energy, and transport, as well as the internal market. So far, the approach endorsed by the EU institutions has been somewhat patchy.

To make matters worse, since it is not defined under Treaty law, few pieces of secondary law define this concept;[69] and even when the concept is proclaimed, its content has barely been fleshed out. Although the Water Framework Directive 2000/60/EC stresses that water management must promote 'sustainable water use based on a long-term protection of available water resources',[70] it does not impose on the Member States any specific method of defining sustainability. With respect to waste management, when applying extended producer responsibility, Member States shall take into account the three pillars of sustainable development, for example 'the overall environmental, human health and social impacts' as well as 'the need to ensure the proper functioning of the internal market.'[71]

Furthermore, the manner in which some environmental provisions were drafted or are implemented is testament to the ambiguous nature of sustainable development. For instance, Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources provides striking evidence of this ambiguity. On the one hand, the directive establishes mandatory national targets consistent with a 20 per cent share of energy from renewable sources and a 10 per cent share of energy from renewable sources in transport in EU energy consumption by 2020. On the other hand, it sets out sustainability criteria ensuring that biofuels and bioliquids can qualify for the incentives only when they can be guaranteed not to come from land with high biodiversity value or with high carbon stock.[72] The question is whether these criteria will be

[62] G. Winter, 'A Fundament and Two Pillars' in H.-C. Bugge and C. Voigt (eds), *Sustainable Development in International and National Law* (Groeningen: Europa Law, 2008) 28.

[63] Case C-91/05 *Commission v Council* [2008] ECR I-3651, para. 98.

[64] *Nomarchiaki Aftodioikisi Aitoloakarnanias e.a.* (n 8), paras 134–9.

[65] Case C-538/09 *Commission v Belgium* [2011] OJ C211/5, para. 53.

[66] [illegible]

[67] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions—Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development (COM/2009/0400 final).

[68] See Section 5.

[69] Eg with regard to the conservation of tropical forests, sustainable development is defined as 'the improvement of the standard of living and welfare of the relevant populations within the limits of the capacity of the ecosystems by maintaining natural assets and their biological diversity for the benefit of present and future generations'. See European Parliament and Council Regulation (EC) No. 2494/2000 on measures to promote the conservation and sustainable management of tropical forests and other forests in developing countries [2000] OJ L288/6, Art. 2(4). Clearly, such a definition is extremely broad.

[70] European Parliament and Council Directive 2000/60/EC establishing a framework for Community action in the field of water policy [2000] OJ L327/1, Art. 1(b).

[71] European Parliament and Council Directive 2008/98/EC on waste [2008] OJ L312, Art. 8(3).

[72] Directive 2009/28/EC on the promotion of the use of energy from renewable sources [2009] OJ L140/16,

deforestation in developing countries and to increase intensive agriculture of biomass crops.

By the same token, the Common Fisheries Policy (CFP) also illustrates the inherent ambiguity of sustainable development. Pursuant to Article 2(1) of Council Regulation (EC) No. 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources, the general objectives of the CFP consist of ensuring 'exploitation of living aquatic resources that provides sustainable economic, environmental and social conditions' and that the environmental impact of fishing shall be limited.[73] The tri-dimensional aspect of sustainable development and the simultaneous character of the pursuit of those aspects are thus underscored. Needless to say, the fixing of total allowable catch proposed by the Commission on the basis of scientific data has generally been raised by the Council on account that the different interests at stake had to be balanced in the context of sustainable development, among others safeguarding jobs and food security.[74] At first glance, the Council's argument seems compatible with the three-pillar structure of sustainable development. Given that conflicting interests must be weighed, biodiversity concerns are deemed to be merely one aspect of the problem. Admittedly, such a short-term vision has been downgrading environmental concerns at the expense of an ecosystemic approach and the sustainable exploitation of fish stocks.[75]

Another piece of evidence for this are the objectives of the Regional Fund, the Social Fund, and the Cohesion Fund setting out that these funds 'must be pursued in the framework of sustainable development'.[76] However, no indication is given as to how this should be achieved. For instance, the question arises as to what 'sustainable tourism'[77] means as regards land planning, water and energy consumption, ecotourism, transport, coastal zonal management, and a flurry of other indicators.[78]

To sum up, there has been no serious attempt to operationalize this popular piece of EU political jargon and to take measures with a view to reversing unsustainable environmental trends.[79]

[73] Council Regulation (EC) No. 2371/2002 on the conservation and sustainable exploitation of fisheries resources [2002] OJ L358.

[74] See N. de Sadeleer and C.-H. Born, *Droit international et de l'UE de la biodiversité* (Paris: Dalloz, 2004) 684, no. 740; J. Wakefield, 'Fisheries: A Failure of Values' (2009) 46 *CML Rev* 439 and 440; Winter (n 62), 28; Krämer (n 54), 379–81.

[75] T. Markus, *European Fisheries Law. From Promotion to Management* (Groeningen: Europa Law, 2009).

[76] Regulation (EC) No. 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund [2006] OJ L210/25, Art. 17. See also Regulation (EC) No. 1080/2006 on the European Regional Fund [2006] OJ L 210/1, Arts 4, 5(2)(d), 6(2)(b)(d), 9, and 10; Regulation (EC) No. 1081/2006 on the European Social Fund [2006] OJ L210/12, Art. 3(1)(b) and (c); Regulation (EC) No. 1084/2006 on the European Cohesion Fund [2006] OJ L210/79, Art. 2(1).

[77] Regulation (EC) No. 1080/2006 on the European Regional Fund [2006] OJ L210/1, Arts 6(2)(b) and 10.

[78] Krämer (n 54), 392.

[79] Krämer (n 54), 392.

5. Environmental Integration Clause

5.1 Introductory remarks

Environmental protection has more often given way to socio-economic considerations. For instance, in cases involving the overlap of administrative regulations, the solutions adopted by the EU and national courts generally lean in favour of economic development rather than the conservation of natural resources.[80] Nature has thus paid a weighty tribute to the absence of any incorporation of environmental requirements into other policies.[81] As discussed in Section 4, one of the key features of sustainable development is precisely to integrate environmental concerns into socio-economic policies. In other words, curbing unsustainable trends thus requires the integration of environmental requirements across policies such as energy, agriculture and fisheries, forestry, industry, transport, regional development, land use, and land planning. Unless this is achieved, environmental degradation will continue apace. Standing alone, environmental policy has no chance to achieve its objectives.

Although international treaties rarely provide for the obligation to integrate environmental requirements into other policies,[82] principle 4 of the Declaration on Environment and Development provides that 'environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it'. In the *Iron Rhine* Arbitration, a dispute involving nature conservancy as well as the

[80] For the convenience of representation, the impact of transport infrastructures on protected habitats have been chosen. Eg the construction of a highway across a Natura 2000 site in order to alleviate traffic was deemed to be an imperative reason of overriding public interest that justifies, by virtue of Art. 6(4) of the Habitats Directive, encroachments on priority habitats and species (BVerwG A 20.05 of 17 January 2007, BVerwGE 128 1). By the same token, the enlargement of a protected area within an existing industrial plant in order to complete the production of a jumbo jet was deemed to fulfil an imperative reason of overriding public interest on account that 'the German authorities have demonstrated that the project is of outstanding importance for the region of Hamburg and for northern Germany as well as the European aerospace industry' (Commission, C(2000) 1079 of 14 April 2000). In spite of the fact that a number of specimens of the most endangered mammal in Europe, the Iberian lynx (*Lynx iberica*), were killed due to an increase in traffic, the conversion of a by-road into a regional motorway across a national park did not infringe the Habitats Directive's obligations on the protection of that rare species (Case C-308/08 *Commission v Spain* [2010] ECR I-4281). See also G. Garcia Ureta, 'Habitats and Environmental Assessment of Plans and Projects' (2007) 2 *JEEPL* 84–96; L. Krämer, 'The European Commission's Opinions under Article 6(4) of the Habitats Directive' (2009) 21:1 *JEL* 70.

[81] EU policies have been criticized for being inconsistent, in particular in respect of nature conservation. In an infringement case brought by the Commission against France regarding the destruction of the wetlands of the *Marais poitevin*, the French authorities submitted that the Community aid package for intensive agriculture ran contrary to the policy of safeguarding wetlands pursuant to Directive 2009/147/EC on the conservation of wild birds [2009] OJ L20/7 (Wild Birds Directive). In answer to those allegations, the ECJ held that even assuming that that was the case, and a certain lack of consistency between various EC policies was shown to exist, that would not authorize a Member State to depart from its obligations under the Wild Birds Directive (Case 96/98 *Commission v France* [1999] ECR I-8531, para. 40).

[82] Declaration on the Human Environment (Stockholm, 16 June 1972), Principle 14; Declaration on Environment and Development (Rio de Janeiro, 14 June 1992), Principle 4; UN World Charter for Nature (28 October 1982), paras 7 and 8; Convention on Biodiversity (Rio de Janeiro, 5 June 1992), Art. 6(b); Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification (Paris, 17 June 1994), Art. 4(2). With respect to integration of more specific nature protection concerns, see the Protocol to the Alpine Convention on Conservation of Nature and the Landscape Protection (Chamberry, 20 December 1994), Art. 4; and Framework Convention on the Protection and

principle of general international law' which applies not only in autonomous activities but also in activities undertaken in implementation of specific treaties between the parties.[83]

As far as EU law is concerned, it was also indispensable, alongside the recognition of sustainable development, to make provision for the decompartmentalization of different policies in line with environmental considerations. Against this background, a number of Treaty provisions require the integration of environmental concerns.

As discussed previously, Articles 3(3) and 21 TEU promote sustainable development: a concept calling for reconciliation of the economic, social, and environmental objectives pursued by the EU.

In addition, by virtue of Articles 13 and 21(3) TEU as well as Article 7 TFEU, the Union ensures consistency between all its policies and activities.[84]

In particular, Article 11 TFEU requires that: 'Environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development'. Moreover, Article 11 TFEU must be read in combination with Article 37 EUCFR that, in much the same vein, requires the integration of 'a high level of environmental protection and the improvement of the quality of the environment'. That said, it must be noted that with the sole exception of the new energy policy encapsulated in Article 194 TFEU, the other policies impinging upon the quality of the environment—industry, agriculture, transport, tourism, etc—do not contain reference either to the environment or to sustainable development.

5.2 Relationship between Article 11 TFEU and other integration clauses

Before attempting to set out the legal nature of this provision, the following paragraphs will discuss several observations regarding the positioning of Article 11 within the TFEU. In effect, the obligation to integrate environmental requirements is no longer an exclusive priority,[85] as other provisions of the TFEU proclaim the cross-cutting nature of the legitimate interests of EU citizens, whether it be in the areas of culture, regional policy, animal welfare, industry, health, consumer protection, or development cooperation (see Table 1.1).

Conversely, the Treaty drafters have been calling on the EU institutions to integrate societal concerns into hard-core economic policies. Pursuant to Article 114(3) TFEU, the Commission's proposals which have as their object the establishment and functioning of the internal market, must pursue a high level of protection, when they concern health, safety, environmental protection, and consumer protection. Accordingly, health, safety, environmental protection, and consumer concerns have to be fully integrated into the internal market harmonization process.

[83] *Arbitration Regarding the Iron Rhine Railway (Belgium v Netherlands)*, Arbitral Award of 24 May 2005, para. 59.

[84] C. Franklin, 'The Burgeoning Principle of Consistency in EU Law' (2011) *YEL* 66.

[85] When the environmental integration clause was inserted in ex Art. 130s(1) EEC by the SEA, it was a single horizontal clause.

Table 1.1 TFEU and EUCFR provisions requiring cross-sectoral approaches

EU Policy	TFEU provisions	EUCFR provisions
Equality between men and women	Article 8 TFEU	Article 23 EUCFR
High level of employment	Article 9 TFEU	
Combating discrimination based on sex, racial or ethnic origin, religion or belief, disability, age, or sexual orientation	Article 10 TFEU	Article 21(2) EUCFR
Environment protection	Article 11 TFEU	Article 37 EUCFR
Consumer protection	Article 12 TFEU	Article 38 EUCFR
Animal welfare	Article 13 TFEU	
Culture	Article 167(4) TFEU	Article 151(4) EC
Health	Article 168(1) TFEU	Article 35 EUCFR
Industry	Article 173(3) TFEU	
Regional policy	Article 175 TFEU	
Development cooperation	Article 208(1)(2) TFEU	
Internal market	Article 114(3) TFEU	

Finally, this cross-sectoral approach has been exacerbated by Articles 13 and 21(3) TEU and Article 7 TFEU; provisions that have been placing emphasis upon the 'consistency' between different EU policies and activities. The obligation to ensure consistency not only has a horizontal dimension, but also a vertical one on the account that national policies and Union policy must be mutually consistent.[86] In particular, secondary legislation may require a consistent approach between an EU policy, such as that combating climate change, and national policies.[87] In addition, according to the Court's case law, a national measure hindering a fundamental economic freedom is appropriate to ensure attainment of the objective pursued if it genuinely reflects a concern to attain it in a consistent and systematic manner.[88] Accordingly, in assessing whether an Austrian traffic prohibition is appropriate to attain the environmental protection objectives it pursues, it is 'essentially necessary to determine whether this traffic prohibition can contribute in a *consistent* and *systematic* manner to reducing NO_2 concentrations' along a motorway.[89]

This flurry of cross-sectoral obligations calls for four observations.

First, these TFEU and EUCFR provisions foster a more holistic approach. Indeed, the different integration clauses require decision-makers to take into account, as part of the decision-making process, not only the full range of interests affected by their decision but also a number of interests that have so far not received any degree of priority. It follows that the EU institutions must reconcile the various objectives laid

[86] See in particular Art. 181(1) TFEU.

[87] According to recital 23 of Directive 2003/87/EC establishing a scheme for green house gas emission allowance trading within the Community (ETS Directive [2003] OJ L275/32), allowance trading should 'form part of a comprehensive and coherent package of policies and measures implemented at Member State and Community level'. See Case 127/07 *Arcelor Atlantic et Lorraine* [2008] ECR I-9895, para. 9.

[88] Case C-384/08 *Attanasio Group* [2010] I-2025, para. 51; and Case C-169/08 *Presidente del Consiglio dei Ministri* [2009] ECR I-10821, para. 42.

[89] Opinion AG Trstenjak in Case C-28/09 *Commission v Austria* [2010] OJ C49/2, para. 95.

objectives impossible.[90]

Second, one might ask whether all these integration clauses should be placed on an equal footing. The answer must be nuanced.[91] It should be noted that there are subtle differences between the wording of each of these clauses. Whereas the environment must be 'integrated' and the protection of health must be 'ensured', the other interests need only be taken 'into account'[92] or into consideration. Moreover, Article 11 TFEU is the only horizontal clause pursuing one of the objectives spelled out by Article 3(3) TEU. It follows that Article 11 TFEU lays down a stronger commitment than some of the other horizontal clauses.

Third, given this proliferation of cross-cutting concerns, one could ask whether these numerous integration clauses all end up cancelling each other out. This calls for a few words of explanation. There is no doubt that an EU act will never end up addressing all objectives cumulatively at the same time.[93] Sometimes it will emphasize one of them, sometimes another, whilst at other times both at the same time.

Fourth, given that the TFEU does not prioritize a specific clause, one policy objective or requirement could override the other policies. Hence, this flurry of integration clauses brings with it the risk of watering down the integration of environmental requirements and their replacement with good intentions.[94] Given that the EU institutions have wide discretionary powers as to how they shape their different policies, EU environmental policy is not likely to have been given priority over other policy areas. Indeed, it is settled case law that institutions have 'to strike a balance between the relative importance of the environmental objectives and other objectives as they proceed'.[95]

Nonetheless, it will not be possible for action carried out within the ambit of a policy to reject or disregard squarely the other interests in play. Therefore, even though it is not necessary to grant absolute priority to the interests protected by the different integration clauses, the EU institutions should nevertheless take due account of the impact caused by the act considered on lesser priority objectives. Put simply, they cannot remain blind to the concerns expressed by each of these policies. As far as environmental issues are concerned, this is particularly true when the action carried out may imperil key natural resources, endanger endemic or rare species, or cause irreversible damage. These values are too fundamental to be overridden by the

[90] See in particular the ECJ case law on CAP objectives. Joined Cases 197–200/80 *Ludwigshafener Walzmühle v Council and Commission* [1981] ECR 3211, para. 41; Case 59/83 *Biovilac v Commission* [1984] ECR 4057, para. 16; Case C-280/93 *Germany v Council* [1994] ECR I-4973, paras 47 and 51; Case C-122/94 *Commission v Council* [1996] ECR I-881, para. 24.

[91] Some authors take the view that there is no hierarchy between these various integration clauses. See H. Vedder, 'The Treaty of Lisbon and European Environmental Law and Policy' (2010) 22:2 *JEL* 289.

[92] Arts 9 and 12 TFEU.

[93] Several EU acts list a host of objectives without organizing them into a hierarchy. Eg in accordance with its Art. 1(a), European Parliament and Council Regulation (EC) No. 1829/2003 on genetically modified food and feed is deemed to ensure concomitantly 'a high level of protection of human life and health, animal health and welfare, environment and consumer interests in relation to genetically modified food and feed, whilst ensuring the effective functioning of the internal market' ([2003] OJ L268/1).

[94] J. Jans, 'Stop the Integration Principle' (2010) 33:5 *Fordham Intl LJ* 1547.

[95] Case C-341/94 *Giani Bettati* [1998] ECR I-4355, para. 35.

pate in a common project, namely of ensuring that the actions of the Union are guided by a quality-of-life project both for its inhabitants as well as its workers. These values are, indeed, a counterweight to the project of an essentially economic nature. Finally, a legal systematic argument supports this interpretation: the founding Treaties should be viewed as forming a consistent legal system.[96] Therefore, where possible, 'treaty provisions should be interpreted so as to help, and not hinder, the EU's other policy objectives'.[97]

5.3 Legal status

We now turn to the legal status of Article 11 TFEU. Five issues emerge as of particular importance.

First, having been progressively reinforced by the amendments made to the former EC Treaty,[98] the integration clause embodied in Article 11 TFEU now occupies a symbolic position amongst the introductory provisions of the TFEU.[99] Admittedly, it is important to point out that although the desire of the framers of the Treaty to place this clause in the part dedicated to 'Provisions having general application' is apparently devoid of any legal significance, this does not alter the fact that this logistical choice may have effects with regard to the position of the environment within the hierarchy of values and the resulting balance of interests.[100] As a result, this clause has been coined a 'general principle',[101] a 'legal principle',[102] and even a 'basic principle'.[103]

Second, in spite of the fact that the procedures for its application have not been specified, it should be pointed out that this provision is binding ('must'). Unlike sustainable development, which is a rather ambiguous objective, Article 11 TFEU poses a concrete obligation. Indeed, a literal interpretation of Article 11 TFEU suggests

[96] P. Pescatore, *The Law of Integration* (Leiden: Stijhol, 1974) 41.

[97] S. Kingston, 'Integrating Environmental Protection and EU Competition Law: Why Competition Isn't Special' (2010) 6 *ELJ* 781.

[98] The environmental clause has been progressively reinforced. Although the environmental protection requirements were originally 'a component of the Community's other policies' (Art. 130r(2) as it appears in the SEA), later they would have to 'be integrated into the definition and implementation of other Community policies' (according to the same article as it appears in the Treaty of Maastricht), as well as in 'the Community... activities' (Art. 6 as it appears in the Treaty of Amsterdam). In addition, under the Treaty of Maastricht, the aim of the clause has been specified: integration must be pursued specifically with a view to achieving sustainable development.

[99] M. Wessmaier, 'The Integration of Environmental Protection as General Rule for Interpreting Law' (2001) *CML Rev* 159–77; N. D'Hondt, *Integration of Environmental Protection into other European EU Policies. Legal Theory and Practice* (Groeningen: Europa Law, 2003); D. Grimmeaud, 'The Integration of Environmental Concerns into EC Policies: A Genuine Policy Development?' (2000) *EELR* 207–18; W. Lafferty and E. Hovden, 'Environmental Policy Integration: Towards an Analytical Framework' (2003) 3 *Environmental Politics* 1–22; R. Macrory, *Regulation, Enforcement and Governance in Environmental Law* (Oxford: Hart Publishing, 2010) 567–83; Jans (n 94), 1533–47.

[100] Case C-176/03 *Commission v Council* [2005] ECR I-7879, para. 42.

[101] M. Wessmeier (n 99), 161; Jans (n 94), 1537.

[102] D'Hondt (n 99), 143; N. Hervé-Fournereu, 'Le principe d'intégration des exigences de la protection de l'environnement: essai de clarification juridique' in *Liber amicorum Jean RAUX, Le droit de l'Union européenne en principes* (Rennes: Apogée, 2006) 661.

[103] S. Mahmoudi, 'Integration of Environmental Considerations into Transport' in R. Macrory (ed.), *Reflections on 30 Years of EU Environmental Law* (Groeningen: Europa Law, 2006) 185.

into account' the different environmental criteria, which are not binding.[104] It follows that EU institutions cannot ignore environmental protection requirements when pursuing other policies.

Third, also known as the principle of integration, the environmental integration clause is called upon to play a greater role, not only due to the fact that it makes it possible to avoid interferences and contradictions between competing policies, but also because it may enhance sustainable development in favouring the implementation of more global, more coherent, and more effective policies.

Fourth, given that 'environmental requirements' have to be integrated, the institutions cannot content themselves with the objectives of that policy. They also have to pay heed to the principles and the criteria guiding that policy.[105]

Fifth, the material scope of Article 11 is particularly broad ('definition and implementation of policies and activities'). This provision not only obliges the EU institutions to intervene, but also encourages them to extend the field of environmental action, given that 'policies and activities' embrace all regulatory and financial measures contemplated under that provision, including measures, programmes, regimes, and not only those specifically entitled 'policies' and 'activities'. In other words, environmental policy should now reach beyond the restricted area to which it is generally confined (listed installations, emission and quality standards, waste management, ecosystem management, etc). Furthermore, integration calls in any event for the abandonment of a vertical organizational model, according to which each policy is confined to a very specific field of action, in favour of a more cross-cutting approach.

However, the binding nature of Article 11 TFEU is hindered by several stumbling blocks. One of its drawbacks stems from the fact that the conceptual tools and the methods of integrating environmental requirements are not spelled out in the TFEU.

So far, many questions are left unanswered. Indeed, this provision refers to the integration of 'environmental policy requirements'. But what should be integrated into other policies: objectives, principles, procedural rights, emission standards, quality targets?

The environmental principles proclaimed in Article 192(2) TFEU[106] could provide the muscle for the obligation to integrate environmental considerations, but the EU Courts appear to be hesitant to head down this path.[107] Pursuant to Article 37 EUCFR, 'a high level of protection' should at least be integrated. But, as emphasized later, the determination of that level will always be mired in controversy. The degree of integration required is not specified at all in the TFEU and, in practice, it may vary substantially depending on the degree of openness of the different public policies which contribute to worsening the quality of the environment.

[104] Jans and Vedder (n 12), 17. See the discussion in Section 8.

[105] D'Hondt (n 99), 72–80; Jans (n 94), 1542. As regards the scope of the environmental principles and criteria, see the discussion in Sections 7 and 8.

[106] See the discussion in Section 6.

[107] The CFI took the view that the precautionary principle is 'the corollary of the principle that the requirements of the protection of public health are to prevail over economic interests'. See Case T-74/00 *Artegodan* [2002] ECR II-4945, para. 174.

requirements is supposed to promote, pursuant Article 11 TFEU, 'in particular... sustainable development' or, by virtue of Article 37 EUCFR, 'the principle of sustainable development'. Hence, integration is not a goal in itself but rather a means by which the EU should achieve a much more ambitious objective. Clearly, since sustainable development tends precisely to reconcile economic, social, and environmental interests, the environmental requirements risk being laid aside in the name of contradicting requirements. The result is at the very least paradoxical: since Article 11 TFEU appears to give priority to environmental protection, the promotion of sustainable development may, by contrast, water down or even weaken the scope of the integration clause.

To sum up, as with the concept of sustainable development, this provision is characterized by a strong degree of indeterminacy.

5.4 Case law

There is, indeed, a question as to the binding nature of Article 11 TFEU: does it set out an objective lacking in binding effects, a standard, or a Treaty obligation, the violation of which is likely to be reviewed by the EU Courts? Besides, there is a further aspect to Article 11 TFEU: it functions as a canon of interpretation. Furthermore, it also functions as a directing principle in that it obliges the EU institutions to define a framework for action with a view to mitigating the pressure put on the environment by other policies. We shall address these issues in the subsequent subsections.

5.4.1 *Judicial review*

The academic literature has underscored the difficulties which the EU Courts could come up against when reviewing the legitimacy of an act of the Council or the Commission regarding energy or rural development against this obligation.[108] Some commentators consider that the violation of Article 11 TFEU could not result in the annulment of the act in question except in exceptional circumstances.[109]

To date, a single measure has been challenged before the EU Courts on the ground that environmental requirements were absent or were insufficiently integrated. In 2004, Austria brought an action for annulment against Regulation (EC) No. 2327/2003 of the European Parliament and of the Council of 22 December 2003 establishing a transitional points system applicable to heavy goods vehicles travelling through Austria. In the context of this action, within the framework of a sustainable transport policy, Advocate General Geelhoed examined, among other things, the compatibility of the regulation with ex Article 6 EC (Art. 11 TFEU). Even though the case was removed from the register, the Advocate General took the view that 'although this provision is drafted in imperative terms,... it cannot be regarded as laying down a standard according to which in defining Community policies environmental protection must

[108] Jans and Vedder (n 12), 20.

[109] Macrory (n 99), 558 and 573.

and the Community legislature'[111] this provision is 'at most... to be regarded as an obligation on the part of the Community institutions to take due account of ecological interests in policy areas outside that of environmental protection *stricto sensu*. It is only where ecological interests manifestly have not been taken into account or where they have been completely disregarded that Article 6 EC [Art. 11 TFEU] may serve as the standard for reviewing the validity of Community legislation'.[112] At the end of the day, the Court of Justice did not adjudicate the case but if Advocate General Geeldhoed's Opinion were to be endorsed by the Court, the judicial review of EU secondary measures integrating environmental protection concerns would then be seriously limited to very exceptional cases, where institutions have 'manifestly' or 'completely' disregarded environmental concerns.

Without doubt, the indeterminate nature of the substantive content of the obligation to integrate environmental requirements means that judicial review is a more sensitive issue; however, this does not mean that review is precluded. We are taking the view that the wording of Article 11 TFEU does not represent an obstacle to review by the EU Courts, even though this review is narrow in scope insofar as the EU Courts generally limit themselves to condemning manifest errors of appraisal or misuse of powers.

Consequently, if it is manifestly clear, with regard to given objectives (scientific or technical), that where a contested measure does not take environmental concerns into account, even though they arise in very concrete terms, the Court will have to annul it. Such a review must, in any event, become more stringent where the institution adopting the contested instrument has not properly stated its reasons for not taking the environmental dimension into account. This would be the case, for instance, of an executive or a delegated act adopted by the Commission by virtue of a legislative act paying heed to the environmental dimension.

That said, in spite of the hurdles claimants are likely to face, Article 11 is not devoid of legal effects.

5.4.2 *Principle of interpretation*

Although judicial review is likely to be limited to whether institutions have committed a manifest error of appraisal or misuse their powers, Article 11 TFEU has been playing a greater role so far as a principle of interpretation.[113] Specifically, where the Court of Justice is called on to rule on hard cases, it resorts to Article 11 TFEU which comes in the form of a principle of interpretation. This can be illustrated by the following cases.

It is settled case law that the integration clause implies in particular that provisions other than Article 192 TFEU may operate as a basis for actions that are partially related to environmental protection. Accordingly, an international agreement providing for an

[110] Opinion AG Geelhoed delivered on 26 January 2006 in Case C-161/04 *Austria v Parliament and Council* [2006] ECR I-7183, para. 59.
[111] Opinion AG Geelhoed (n 110).
[112] Opinion AG Geelhoed (n 110).
[113] Case T-212/09 *Denmark v Commission* [2012] OJ C373/2, para. 76.

[207 TFEU]' even though 'it pursued, primarily or subsidiarily, objectives of an environmental nature'. Recourse to this type of legal basis may be justified on the basis of Articles 11 and 168(1) TFEU, according to which environmental protection requirements, and requirements relating to the protection of human health, must be integrated into the definition and implementation of Union policies and activities.[114] As a result, Article 11 TFEU broadens the other EU policies' objectives.

By the same token, Article 11 TFEU justifies a broad implementation of the precautionary principle even within policies that do not expressly proclaim it, such as health.[115]

Article 11 TFEU also requires the EU Courts to follow the interpretation that is most favourable to environmental protection when they are required to weigh up ecological interests against economic interests.[116] By way of example, in one of the numerous judgments concerning the traffic in goods travelling along the section of motorway in the Inn Valley in Austria, the Court of Justice upheld the justification for tariff barriers imposed by the Austrian authorities as compatible with imperative requirements relating to environmental protection, on the ground, in particular, that these considerations had to be incorporated into the definition and implementation of the policies and actions of the former Community.[117] Accordingly, preference should be given to the interpretation that is deemed to be the most favourable to environmental requirements.

The Court of Justice also relied on Article 11 TFEU when concluding that a framework decision—an act related to the former third pillar—defining a certain number of environmental offences, for which the Member States were called on to prescribe criminal penalties, had to be replaced by an act adopted on the basis of Article 175 EC (Art. 192 TFEU) and not on the basis of the ex Article 34 TEU.[118]

The General Court also relied implicitly on this clause in order to arrive at the following solutions. The Commission may recognize the compatibility of State environmental aids not only with reference to the framework dedicated to this type of aid, but 'directly on the basis of Article [107(3) TFEU], unless it has explicitly adopted a position on the question at issue in its framework'.[119]

5.5 Secondary law

As an instrument providing legal guidance, since 1993 the integration clause has been the object of an important debate within the EU institutions which have often come across as part of an organization essentially pursuing economic regional integration.

[114] Case C-94/03 *Commission v Council* [2006] ECR I-1, para. 26.
[115] See the discussion in Section 7.6.
[116] Opinion AG Jacobs in Case C-379/98 *PreussenElektra* [2001] ECR I-2159, para. 232.
[117] Case C-320/03 *Commission v Austria* [2005] ECR I-9871, para. 73.
[118] Case C-176/03 *Commission v Council* [2005] ECR I-7879, para. 42.
[119] Case T-375/03 *Fachvereinigung Mineralfaserindustrie* [2007] ECR II-121, para. 143. Judgment not available in English.

various communications and strategies. These non-binding instruments thus provide the modus operandi for the integration clause.[120]

There is no shortage of secondary law provisions referring to this obligation. For instance, the objectives of the Regional, Social and Cohesion Funds shall be pursued 'in the framework of sustainable development and the Community promotion of the goal of protecting and improving the environment as set out in [Article 11 TFEU].'[121] However, such statements may be ineffective where they not supplemented with more precise environmental requirements integrated into non-environmental legislation.[122] In this respect, it is worthy of note that the environmental integration clause has been transposed into secondary EU law, in particular through a number of harmonization measures obliging public and private actors to incorporate into their decisions certain basic rules and procedures which have the goal of contributing to environmental protection. In other words, EU secondary law progressively integrates environmental concerns. For convenience, a few examples have been chosen relating to land planning, the Common Agricultural Policy (CAP), transport, State aids, air transport, public tendering, structural funds, and international private law.

Inasmuch as land planning regulations allow the realization of public or private projects, environmental concerns must be taken into account at the earliest stage, when conceiving the land-planning regulation, not at the time of construction. It is certainly more effective first to assess the overall impact of all the roads encapsulated in a highways project than to single out every road without any broader assessment. On this account, Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment subjects the plans and programmes underlying the realization of particular projects to a preliminary environmental assessment procedure.

Furthermore, 'eco-conditionality' or 'cross-compliance' allows the granting of direct payments provided the recipients (farmers, fishermen, etc) abide by specific environmental requirements. The strength of this financial mechanism lies in the economic nature of the sanction it contains, which is the suppression of the advantage granted.[123] So far, agricultural aid has been the favoured field of this mechanism. By way of illustration, Regulation (EC) No. 1782/2003 establishing common rules for direct support schemes under the CAP and establishing certain support schemes for farmers encapsulates such a mechanism. Pursuant to that Regulation, farmers receiving direct

[120] See, notably, Commission Communications: Market and Environment. Communication from the Commission to the European Parliament and the Council, COM(99) 263 final; Elements of a Strategy for the Integration of Environmental Protection Requirements into the Common Fisheries Policy, COM(2001) 143 final; Directions towards Sustainable Agriculture, COM (99) 22 final; Integrating Environment and Sustainable Development into Economic and Development Cooperation Policy—Elements of a Comprehensive Strategy, COM(99) 499.

[121] Regulation (EC) No. 1083/2006, Art. 7.

[122] The integration requirement provided the basis for an action of annulment lodged by an Irish NGO against a Commission's decision financing through structural funds the construction of an interpretative centre in a national park. See Case T-461/93 *An Taisce v Commission* [1994] ECR II-733.

[123] B. Jack, *Agriculture and EU Environmental Law* (Farnham: Ashgate, 2009) 70–9.

hand, requirements relating to the respect of secondary environmental legislation; and, on the other, the obligation to maintain their land in 'good agricultural and environment condition'. It emerges from the regulation's genesis that the Council wanted to lend more weight to environmental considerations.[124]

As regards the integration of security and travellers' health considerations in air security policy, Article 6 of Regulation (EC) No. 1592/2002 of the European Parliament and of the Council of 15 July 2002 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, the legal basis of which is ex Article 80(2) EC (Art. 100 TFEU), sets out a number of measures in order to curb air and noise pollution. Moreover, in accordance with the proportionality principle, Directive 2002/30/EC of the European Parliament and of the Council of 26 March 2002 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports allows Member States progressively to eliminate the noisiest planes on the basis of an impact study.[125]

As discussed in Part III, the integration clause is also fleshed out in the European Commission's practice aiming to encourage State aids that are deemed to be favourable to environmental protection. Thus, as will be seen later,[126] undertakings may obtain State aids not to comply with existing environmental standards but exclusively in order to improve their environmental performance beyond the regulatory standards.

It is common ground that the choices made by public authorities in relation to tendering, have traditionally been influenced by the cheapest tender, or by other criteria having no link with protection of the environment. However, as soon as it is likely that environmental criteria may prevail over 'the most economically advantageous tender' criterion, it can be expected that every tenderer will integrate these requirements in its tender.[127] In a case relating to the conclusion of a contract concerning the acquisition of eco-friendly buses for the city of Helsinki, Finland, the ECJ referred to ex Article 6 EC (Art. 11 TFEU) to conclude that Council Directive 92/50/EEC of 18 June 1992 relating to the coordination of procedures for the award of public service contracts did not 'exclude the possibility for the contracting authority of using criteria relating to the preservation of the environment when assessing the economically most advantageous tender.'[128] Hence, the Court of Justice took the view that 'when assessing the economically most advantageous tender' the contracting authority could attach a weighting of 45 per cent to the environmental criterion on which it proposed to base the award of contract. The importance given to this criterion did not appear 'to present an obstacle to an overall evaluation of the criteria applied in order to identify the most economically advantageous tender'.[129] In requiring

[124] Opinion AG Trstenjak in Case C-428/07 *Mark Horvath v Secretary of State for Environment* [2009] ECR I-6355, paras 47 et seq.

[125] [2002] OJ L85/40. See Case C-422/05 *Commission v Belgium* [2007] ECR I-4749.

[126] Chapter 12.

[127] S. Arrowsmith and P. Kunzlik (eds), *Social and Environmental Policies in EC Procurement Law* (Cambridge: CUP, 2009); J. J. Pernas García, *Contratación pública verde* (Madrid: La Ley, 2009).

[128] Case C-513/99 *Concordia Bus Finland* [2002] ECR I-7213, para. 57.

[129] Case C-448/01 *ENV AG and Wienstrom GmbH v Austria* [2003] ECR I-4527, para. 42. In this judgment, the Court follows the same reasoning as in *Concordia Bus Finland* which concerned an electricity

equivalent of 16 per cent of GDP on the purchase of goods and services, one might expect the progressive greening of public procurement to enlarge markets for environmentally friendly products and services.[131]

Even though the conflict-of-law settlement principle set out in Article 4(1) of Regulation Rome II is that 'the law applicable to a non-contractual obligation arising out of a tort/delict shall be the law of the country in which the damage occurred...', Article 7 of the regulation allows the victim of environmental damage 'to base his or her claim on the law of the country in which the event giving rise to the damage occurred'. The victim may thus resort to the law that is most favourable to the protection of his or her interests: the law of the country in which the event giving rise to the damage occurred or the law of the country in which the damage occurred.[132] For water pollution, this mechanism entices the undertaking with a good environmental record, and which is based in an upstream Member State, to take into consideration the higher standards applied in its home State rather than the less comprehensive standards of the downstream Member State in which the damage is most likely to occur.

Given that the exhaustion of natural resources and the damage caused to the environment might thwart efforts aiming at reducing poverty in developing countries, the EU has defined, through environmental criteria, the modes according

supply contract. It should also be noted that the Court accepted an award criterion that did not refer to the physical characteristics or materials of the product (electricity), but instead to the method or process of production (renewable energy).

[130] See European Parliament and Council Directive 2004/18/EC on the coordination of procedures for the award of public works contracts, public supply contracts, and public service contracts ([2004] OJ L351/44), which 'clarifies how the contracting authorities may contribute to the protection of the environment and the promotion of sustainable development' (recital 5, see in particular, Art. 23). Regarding the extent to which contracting authorities can, under Directive 2004/18, make the environmental and social sustainability of the products to be supplied a condition for the award of a contract, see Case C-368/10 *Commission v Netherlands* [2012] OJ C 328. In addition, European Parliament and Council Directive 2006/32/EC on energy end-use efficiency and energy services ([2006] OJ L114/64) obliges Member States to adopt two measures from the group of measures provided in Annex VI, entitled 'List of eligible energy efficient public procurement measures'. By the same token, European Parliament and Council Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles ([2009] OJ L120/5) obliges contracting authorities to take into account the energy and environmental impact of vehicles during their useful life, including energy consumption and CO_2 and other pollutants, when they purchase vehicles for road transport (Art. 5). Finally, European Parliament and Council Regulation (EC) No. 106/2008 on a Community energy-efficiency labelling programme for office equipment ([2008] OJ L39/1) requires EU institutions and Member State authorities to purchase office equipment that meets certain energy efficiency requirements.

[131] See Public Procurement for a Better Environment, COM(2008) 400 final, para. 1.1. This EU strategy has been developed within the framework of the EU Strategy of Sustainable Development and the Action Plan on Sustainable Consumption and Production (2008). In 2005, the Commission contributed to promoting its environmental public procurement strategy by publishing a *Handbook on Environmental Public Procurement* (updated 25 October 2011).

[132] M. Bogdan, 'The Treatment of Environmental Damage in Rome II' in J. Ahern and W. Binchy (eds), *The Rome II Regulation on the Law Applicable to Non-Contractual Obligations* (Leiden/Boston: Martinus Nijhoff, 2009) 219–30; E. Guinchard and S. Lamont-Black, 'Environmental Law—the Black Sheep in Rome II's Drive for Legal Certainty?' (2009) 11 *Env L Rev* 161–72.

assistance.[133]

These regimes illustrate how the environmental clause has filtered into secondary law. However, one doesn't have to be a genius to acknowledge the extent of the disparity between the discourse of integration and hard facts.[134] Integration discourses in many respects go hand in hand with the replacement of action with good intentions, given the difficulties encountered in modifying policies deeply branded by a production-based ideology, whether it be the CAP[135] or transport policy.[136]

Also, the implementation of contradictory EU policies has the effect of exacerbating environmental problems.

6. Objectives of the EU Environmental Policy

6.1 Introductory comments

In the original Treaty of Rome, the only articles setting out specific objectives were those relating to the CAP and the association of overseas countries and territories. The framers of the Treaties certainly had the intention of enshrining within Treaty law the political guidelines to be followed in Community legislation. Setting these objectives did not fail to have an impact. Very early on, in fact, the Court of Justice established the principle that objectives had legal status on the same footing as the introductory articles to the Treaty.[137]

Starting with the SEA, and even more so after the Maastricht Treaty, numerous specific objectives of increasing detail were incorporated into the Treaties. Taking account of the principle that the EU may only act in accordance with the powers conferred upon it, the stating of objectives has helped to provide the Union's action with an indispensable legal basis. Moreover, given the proliferation of Union policies having their own objectives, the Court of Justice is working on objective criteria, among which are the objectives of the legislation, to rule whether the choice of legal basis for the

[133] European Parliament and Council Regulation (EC) No. 2493/2000 on measures to promote the full integration of the environmental dimension in the development process of developing countries [2000] OJ L288/1. This regulation has a double legal basis, consisting in ex Arts 175 and 179 EC (Arts 192 and 209 TFEU).

[134] As regards the lack of integration of environmental concerns in EU development policy, see Special Report No 6/2006 of the Court of Auditors concerning environmental aspects of the Commission's development cooperation, together with the Commission's replies ([2006] OJ C235/1–39). With respect to the use of EU funds jeopardizing a habitat deemed to be protected under the Habitats Direction 92/43/EC ([1992] OJ L206/7), see *An Taisce v Commission* (n 122). With regards to inadquate implementation of environmental requirements in the energy, agriculture, and transport policies, see D'Hondt (n 99), 442–4

[135] See the first objective of the CAP, namely the increase of the agricultural productivity (Art. 39(1)(a) TFEU).

[136] In the context of 'the establishment and development of trans-European networks in the areas of transport, telecommunications and energy infrastructures' (Art. 170(1) TFEU; ex Art. 154(1) EC), which is a full EU's policy, the 21 priority projects of the trans-European transport network (TEN-T) would cross no less than a thousand sites classified as protected in the Natura 2000 network in accordance with Directive 92/43/EC on the conservation of natural habitats and of wild fauna and flora (Birdlife International *Hundreds of Nature Sites at Risk from EU Transport Projects*, 2008), even though those sites harbour wildlife species which are extremely sensitive to the cutting effects of road-building.

[137] Case 8/57 *Groupement des hauts fourneaux et aciéries belges HFA* [1958] ECR 245.

contested act is appropriate. In addition, the objectives may also be regarded as a way of guiding the Court of Justice when interpreting the provisions of a directive or a regulation if it has been requested to provide an answer on a reference for a preliminary ruling.[138]

Accordingly, EU environmental law must be analysed in the light of the 'essential'[139] objectives set forth in the TEU and TFEU. By virtue of Article 3 TEU, the EU aims 'to promote... the well-being of its peoples' and, in particular, 'a high level of protection and improvement of the quality of the environment'.

As far as environmental policy is concerned, the competence is defined, since the entry into force of the SEA, in terms of objectives to be achieved, rather than areas of activities to be regulated. Indeed, pursuant to Article 191(1) TFEU, the EU environmental policy pursues four objectives:

- preserving, protecting and improving the quality of the environment,
- protecting human health,
- prudent and rational utilisation of natural resources,
- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

This provision calls for several observations.

First, by virtue of the extremely general and fluid nature of these four objectives, the EU lawmakers are left with a genuine discretionary power as to the fundamental choices of this policy. In effect, their general wording permits a degree of flexibility as well as adaptability in the aims pursued by the EU legislature when it wishes to provide for common action. For instance, in *Peralta*, the Court of Justice ruled that ex Article 130r (Art. 191(1) TFEU) 'confines itself to defining the general objectives of the Community in environmental matters.' 'Responsibility for deciding what action is to be taken' in order to achieve these goals is conferred on the lawmaker by [Article 192 TFEU]'.[140] Consequently, the priority areas of action are likely to change regularly in accordance with political willingness to ward off environmental risks. Given that the powers to act in environmental matters are so broad, EU environmental competence encompasses almost any environmental measure: biodiversity, water, soil, air, climate, hazardous substances, waste, oil spills, product life-cycle analysis, pesticides, listed installations, noise, impact assessments, procedural rights such as access to information and justice, etc. It thus proves difficult to draw the limits of this protean policy.

Second, whilst the objectives do contribute to delineating the scope of environmental policy, they also mark out its limits. If an act based on Article 192 TFEU fails to pursue one or more of these objectives, it will have to be ruled invalid.

Third, they are listed in a linear fashion. One could ask whether these four objectives are placed on a completely equal footing or whether, by contrast, any hierarchy could be envisaged. Since there is no hierarchy between them, one objective may prevail over the others;[141] it is not possible to infer any order of priority whatsoever. This therefore means that the EU institutions have to specify and hierarchically classify objectives within each given area of secondary law.[142] However, as noted later, there is no need to conceal the problem of possible contradictions between these objectives. The Court of Justice may therefore resolve any differences between them. Analogous reasoning could be followed regarding the case law of the Court of Justice on the objectives of the CAP.[143] Regarding that policy, nothing precludes the Court of Justice from giving priority to one over another.[144]

Fourth, environmental obligations set out in secondary law have to be read in the light of the objectives spelled out by Article 191(1) TFEU.[145]

Fifth, it should be noted that environmental objectives may also be taken into account by virtue of Article 11 TFEU and Article 37 EUCFR within the context of action conducted in relation to other EU policies.

Finally, it is a matter of regret that the health of consumers, which is placed in jeopardy by numerous pollutants, is not included amongst the objectives of environmental policy.[146] Without doubt, consumer protection law—which is older than environmental law—falls within the area of private law, whilst environmental law is an offshoot of public law. However, as a result of the effect of sustainable development and the integration clause,[147] this boundary is becoming increasingly blurred. Thus, public law is driven to interact with private law in this area. There is no doubt that environmental law, consumer protection law, and health protection law will one day be called upon to form a triple alliance.

A brief discussion of each of these four objectives is warranted to make clear the baseline against which the EU environmental policy unfolds.

[138] Case C-343/09 *Afton* [2010] ECR I-7027, para. 64; Case C-420/10 *Söll* [2012] OJ C118/3, para. 27.

[139] Case 240/83 *ADBHU* [1985] ECR I-531, para. 13; Case C-195/90 *Commission v Germany* [1992] ECR I-3141, para. 29; Case C-508/04 *Commission v Austria* [2007] ECR I-3787, para. 120; and Case C-487/06 P *British Aggregates v Commission* [2008] ECR I-10515, para. 91.

[140] ...

[141] With respect to Natura 2000 habitats, setting conservation and restoration objectives 'may in fact require decisions to be made on conflicts between various objectives'. Opinion AG Kokott in Case C-241/08 *Commission v France* [2010] ECR I-1697, para. 71.

[142] See, eg, the manner in which the waste management objectives have been classified under the waste hierarchy provided for under Art. 4 of Directive 2008/98/EC on waste [2008] OJ L312/3. With regards to other EU policies, nothing precludes environmental interests from prevailing over economic objectives, such as that of improving plant production (recital 24 of Regulation (EC) No. 1107/2009 concerning the placing of plant production products on the market [2009] OJ L309/1).

[143] Case 5/73 *Balkan Import-Export* [1973] ECR 1091; and Cases 279/84, 280/84, 285/84 & 286/84 *Rau* [1987] ECR I-1069.

[144] The Court has held that 'in pursuing the objectives of the common agricultural policy the Community institutions must secure the permanent harmonization made necessary by any conflicts between those objectives taken individually and, where necessary, give any one of them temporary priority in order to satisfy the demands of the economic factors or conditions in view of which their decisions are made.' See Case 203/86 *Spain v Council* [1988] ECR 4563, para. 10; Case C-311/89 *Joseph Hierl* [1988] ECR I-2079, para. 13.

[145] In much the same vein, CAP obligations have to be read in the light of the objectives spelled out by Art. 39(1) TFEU. See Case C-137/00 *Milk Marque Ltd and NFU* [2008] ECR I-7975, paras 98–9.

[146] Consumer health is one of the objectives of EU consumer policy under Art. 169(1) TFEU. *Afton* is a good case in point regarding the impossibility to draw a dividing line between consumer health and ... of a measure restricting the use of a chemical additive. See *Afton* (n 138).

6.2 The environmental objective

The first objective is the only one which concerns the environment, a concept which, as we saw earlier, is somewhat imprecise.[148] The policy must be both reactive ('protection')[149] as well as proactive ('improvement'). As will be seen in the next section, the principle of prevention underpins most of the regulatory devices.

Protection can entail either mitigation or compensatory measures.[150] Moreover, most of the EU measures aiming at protecting wildlife, conserving ecosystems, or managing natural resources are pursuing both a reactive as well as a proactive approach.

As far as a proactive approach is concerned, restoration of a degraded environment has become the thrust of the policy. Numerous illustrations can be found: for instance, given that the water quality is so poor in most of the Member States, the Water Framework Directive 2000/60/EC calls upon the national authorities to 'restore all bodies of surface water,..., with the aim of achieving [in 2015] good surface water status'.[151] By the same token, given that a number of species are on the brink of extinction,[152] Members States are obliged to restore 'at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest'.[153]

Lastly, environmental objectives pursued by the EU lawmaker can be subject to broad interpretation. This may be illustrated by the Court of Justice's case law on the definition of eutrophication.[154]

6.3 The human health objective

6.3.1 *Intertwined issues*

Health-related problems today are no longer confined to the discreet surroundings of medical surgeries or hospitals; they also manifest themselves in real estate, airports, foreign trade, control of foodstuffs, health crises, etc.

[148] See Section 2.

[149] However, there is no mention of the issue of conservation, a concept that is understood as the 'series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status' (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7, Art. 1(a)).

[150] See, eg, Art. 6(4) of Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7, and the CDM and Joint Implementation provided for under Directive 2003/87/EC establishing a scheme for green house gas emission allowance trading within the Community [2003] OJ L275/2.

[151] European Parliament and Council Directive 2000/60/EC establishing a framework for Community action in the field of water policy [2000] OJ L327/1, Art. 4(1)(ii).

[152] Nearly one in six of Europe's mammal species, a quarter of amphibians, one-fifth of reptiles, and 9 per cent of European butterflies are listed as threatened status in Europe. See the European Red List reviewing the conservation status of *c.* 6,000 European species according to the International Union for Conservation of Nature's regional Red Listing guidelines.

[153] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7.

[154] The Court held that the term 'eutrophication' defined in Directive 91/271 must be interpreted in the light of the Nitrates Directive's objective, which goes beyond mere protection of aquatic ecosystems. Accordingly, it encompasses a vast number of environmental issues. See Case C-280/02 *Commission v France* [2004] ECR I-8573, paras 13–17; and Case C-390/07 *Commission v UK* [2008] ECR I-7...

In addition, the environment plays a crucial role in people's physical, mental, and social well-being. Hence, environmental degradation, through air pollution, noise, chemicals, poor quality of water, and loss of natural areas, is likely to contribute to significant increases in rates of, for example, obesity, diabetes, diseases of the cardiovascular and nervous systems, and cancer.[155]

It comes as no surprise that environmental and health issues are constantly intertwined. For example, contamination of bovine animals by the BSE agent has been directly linked to recycling of animal carcasses. Since carcasses may no longer be consumed, they need to be burned, which contributes to an increase in atmospheric pollution. Similarly, when imports from Brazil of soya, a replacement for animal feed, rose considerably, this speeded up the destruction of the Amazonian rainforest.[156] This means that food safety issues and environmental impacts end up becoming entangled. Even the supply of drinking water is, in principle, to be included in considerations relating to human health.[157] This interpenetration has also made reconciliation of health-care concerns with environmental requirements inevitable.

6.3.2 *Secondary law*

Numerous directives—in particular in the areas of air, water, and waste management—also recognize public health protection amongst their objectives. It may even be the case that the EU lawmaker himself favours health protection over environmental protection, placing the former on a higher level in the hierarchy of values.[158] Moreover, the imposition of air quality standards which may not be exceeded, 'with a view especially to protecting human health' creates subjective rights which individuals must be able to rely on before the national courts.[159] As the review of the issue of access to justice has shown,[160] the possibility of relying directly on such rights applies particularly 'in respect of a directive ... which is designed ... to protect public health'.[161]

6.3.3 *Case law*

Given their importance, health issues are likely to reinforce environmental regulation. For instance, a standstill approach governing the placing on the market of GMOs

[155] EUGLOREH Project, *Report on the Status of Health in the European Union. Towards a Healthier Europe* (2009); European Environment Agency (EEA), *The European Environment 2010. State and Outlook* (Copenhagen: EEA, 2010) 91.

[156] V. Elferink, S. Nonhebel, and A. J. M. Schoot Uiterkamp, 'Does the Amazon Suffer from BSE Prevention?' (2007) 2–4 *Agriculture, Ecosystems & Environment* 467–9.

[157] *Nomarchiaki Aftodioikisi Aitoloakarnanias e.a.* (n 8), para. 126.

[158] Eg by virtue of Art. 4(7)(2) of the Water Framework Directive 2000/60/EC there is no breach of the Water Framework Directive when 'the benefits to the environment and to society of achieving' the environmental objectives as regards the quality of waters 'are outweighed by the benefits of the new modifications or alterations to human health' or 'to the maintenance of human safety' ([2000] OJ L327/1).

[159] Case C-361/88 *Commission v Germany* [1991] ECR I-2567; and Case C-237/07 *Dieter Janecek* [2008] ECR I-6221, para. 37. See the discussion in Chapter 2, Section 2.4.1.

[160] N. de Sadeleer and C. Poncelet, 'Protection Against Acts Harmful to Human Health and the Environment Adopted by the EU Institutions' (2012) *Cambridge Yearbook of EU Law* 177–208.

[illegible] objective of EU novel food regulation, the scope of ambit of an alternative procedure cannot be interpreted in such a way that it amounts to a relaxation of basic safety requirements.[162]

The Court of Justice has already taken the view that health protection objectives may prevail over those relating to nature protection. By way of illustration, a project jeopardizing a wild bird sanctuary protected under the Wild Birds Directive can be authorized insofar as it wards off the risk of floods[163] but, by the same token, irrigation and the supply of drinking water can be of such an importance that such projects can be weighed against the Habitat Directive's objective of conservation of natural habitats and wild fauna.[164]

Public health also occupies, as we shall see later, a preferential position at the level of general arrangements governing the free movement of goods, since Article 36 TFEU lists amongst the legitimate justifications capable of restricting the free movement of goods, the 'the protection of health and life of humans [and] animals'.[165]

Finally, as regard the placing on the market of hazardous substances, it is settled case law that the protection of human health, 'may justify adverse economic consequences' and 'take precedence over economic considerations'.[166]

6.4 The prudent and rational use of natural resources objective

The third objective, the prudent and rational use of natural resources, must be considered in the light of the promotion of sustainable development, which is one of the key tasks of the EU.[167] This objective should encourage lawmakers to place more emphasis on sustainable consumption[168] and, therefore, to bring about an interaction between environmental rules and consumer protection regulations.

[162] Case C-236/01 *Monsanto Agricultora Italia* [2003] ECR I-8105, para. 80.

[163] Case C-57/89 *Commission v Germany* [1991] ECR I-883, paras 20–3. As a result, EU law expressly cknowledges that 'human health considerations' may be raised by national authorities with a view to istifying a plan or project likely to jeopardize the integrity of a Natura 2000 site hosting priority species and abitats (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ 206/7, Art. 6(4)).

[164] *Nomarchiaki Aftodioikisi Aitoloakarnanias e.a.* (n 8), paras 121–2.

[165] See Chapter 5, Section 5.3.

[166] Order in Case C-180/96 R *UK v Commission* [1996] ECR I-3903, para. 93; Case C-320/93 *Ortscheit* 994] ECR I-5243; Case C-183/95 *Affish* [1997] ECR I-4315, para. 43; Case C-473/98 *Kemikalineinspek-nen and Toolex Alpha* [2000] ECR I-5681, para. 38; Case C-262/02 *Commission v France* [2004] ECR 5569, para. 24; Case C-170/04 *Rosengren and others* [2007] ECR I-407, para. 39; Case C-143/06 *Ludwigs-otheke* [2007] ECR I-9623, para. 27; and Case C-141/07 *Commission v Germany* [2008] ECR I-6935, ra. 46. With respect to General Court case law, see Case T-13/99 *Pfizer Animal Health v Council* [2002] CR II-3305, paras 456 and 457; Case T-392/02 *Solvay v Council* [2003] ECR II-4555, para. 122; and Case 158/03 *Metalaxyl* [2005] ECR II-2425, para. 134.

[167] See Section 4.

[168] Communication from the Commission of 25 June 2008 on the Sustainable Consumption and oduction and Sustainable Industrial Policy Action Plan, COM(2008) 397 final.

6.5 The international objective

We now turn to the last objective which is stressing the importance of international cooperation as well as the fight against climate change.[169] Article 191(1) TFEU allows the EU institutions to take action on an international level, which appears to be logical as a large number of problems have a regional, or even universal, dimension. Since the environment takes no notice of borders, regulatory initiatives may therefore transcend the territorial framework of the EU.[170] Therefore, nothing prevents the EU environmental policy from tackling new problems which may be detected outwith the EU. This possibility is expressly recognized by Article 191(4) TFEU.[171] Due to the international impact of a number of EU environmental measures, it is by no means certain that their importance will wane.

Furthermore, the territorial scope of EU secondary law obligations cannot be interpreted narrowly. Article 52(1) TEU provides that the Treaty 'shall apply' to the States listed therein. Since this provision does not make any reference to the territory of the Member States, it cannot be interpreted as limiting the territorial extent of the Treaty exclusively to the areas falling under the sovereignty of the Member States. The field of application of the Treaty, along with that of secondary EU law, may thus extend beyond the territory of the Member States insofar as public international law permits the Member States to exercise limited jurisdiction. This interpretation is of considerable importance from the point of view of the conservation and sustainable use of biodiversity, in particular as regards the continental shelf, fishing areas, and exclusive economic zones (EEZs). This interpretation results, in particular, from the case law of the Court, and more specifically the *Kramer* case, where the Court recognized—with regard to the EU's competence to adopt measures aimed at the conservation of marine biological resources—that the material powers of the EU extended to the high seas.[172] Thus, to the extent that a Member State has competence in relation to the continental shelf or the EEZ, so too does the Union. This judgment was subsequently confirmed in the *Mondiet* case, concerning the validity of a prohibition on the use of drift nets with a length greater than 2.5 kilometres.[173] Similarly, the Court held that the application of the provisions transposing the directive on habitats conservation into national law cannot be limited only to national territory. It should also encompass the EEZ and the territorial sea.[174] It follows that the EU is competent to adopt rules concerning the

[169] Prior to the Treaty of Lisbon which introduced the objective of the fight against climate change, the Court of Justice had already held that the use of renewable energy sources for producing electricity was useful for protecting the environment insofar as it contributed to the reduction in emissions of GHGs which are among the main causes of climate change which the European Community and its Member States have pledged to combat (Case C-379/98 *PreussenElektra* [2001] ECR I-2099, para. 73).

[170] The Court of Justice has found that the supervision and control procedures established by Regulation (EEC) No. 259/93 on the supervision and control of shipments of waste within, into and out of the European Community ([1993] OJ L30/1) are intended to protect the environment, not only within the Community but also in third countries to which waste is exported from the EU. See Case C-259/05 *Omni Metal Service* [2007] ECR I-4945, para. 30.

[171] See Chapter 3.

[172] Joined Cases 3, 4 & 6/76 *Cornelis Kramer and others* [1976] ECR I-1279.

[173] Case C-405/92 *Mondiet* [1993] ECR I-6133.

[174] [illegible]

Article 191 TFEU in any zone where the Member States have jurisdiction, under the terms of public international law, in order to protect the environment outwith their own territory.

Nevertheless, the exercise of extra-territorial jurisdiction in environmental matters must occur in accordance with the rules of international law.[175] With respect to the EU emissions trading schemes (ETS), the Court of Justice stressed in *ATAA* that the ETS Directive lays down a criterion for the greenhouse gases (GHG) allowances scheme to be applicable to operators of aircraft registered in a third State according to which the scheme is applicable when the aircraft is in the territory of a Member State. Accordingly, the EU lawmaker does not infringe either the principle of territoriality or the principle of sovereignty.[176]

7. Principles of the EU Environmental Policy

7.1 Introductory remarks

Article 191(2) TFEU is worded as follows:

> Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

Given that the environmental policy is the only EU policy to proclaim such a cluster of principles, this provision is somewhat exceptional. It thus comes as no surprise that practising lawyers are increasingly asking themselves what type of role these five principles have to play in legal practice. Two observations can be made at the outset.

First, given that most of these five principles were already embodied in international environmental agreements, they did not take root in virgin soil. For instance, prevention and precaution straddle both international and EU law. Nonetheless, there are a number of discrepancies between the two sets of principles. On the one hand, Article 191(2) proclaims principles that are particular to EU environmental law and policy, such as the principle of rectification at source as well as the principle of a high level of environmental protection. On the other hand, that provision does not embody all the principles laid down in international agreements. These are the cases of the principle of common but differentiated responsibility and of the principle of transboundary cooperation.

Second, several principles encapsulated in various directives and regulations, such as the principles of proximity and self-sufficiency of waste management and substitution, have not hitherto been incorporated in Article 191(2) TFEU.

[175] Case C-286/90 *Anklagenindighedenc Poulsen and Diva Navigation* [1992] ECR I-6019.
[176] Case C-366/10 *ATAA* [2011] OJ C49/7, para. 125.

Given that these five principles may justify EU and national environmental measures likely to hinder the internal market, we now take a close look at their role. It is the aim of the following subsections to determine the scope of each principle and how they have been fleshed out into more precise legal obligations and interpreted by the EU Courts. However, at this juncture a number of more general issues need to be addressed. The first question to be asked is why the Treaty drafters did not define these principles.

7.1.1 *Absence of definition*

Even though there are various definitions of these five principles in international environmental law, the five principles were not defined by the Treaty framers.

Broadly speaking, the lack of definition could be justified on the ground that their implementation across a wide range of policies is rather contextual. In some instances, the EU institutions have clarified the conditions under which some principles have to be applied.[177] That said, though, several regulations and directives provide for more comprehensive definition, while others are silent. By way of illustration, the General Food Law (GFL) Regulation offers a comprehensive definition of the precautionary principle[178] but neither the Environmental Liability nor the Waste Framework Directive define the polluter-pays principle. Although they are not defined in Treaty law, the EU Courts have also introduced extremely useful clarification on the application of these principles.

7.1.2 *Binding principles*

It is well known that the adoption of environmental measures owes more to political compromise than to tidy application of constitutional principles.[179] This statement does not mean that principles enshrined in the TFEU are devoid of legal effects. On the contrary, in contrast to other rules of indeterminate content, these five principles are mandatory.[180] Indeed, the use in paragraph 2 of the indicative rather than the

[177] To fill this gap, in February 2000 the European Commission issued a communication seeking to inform all interested parties of the manner in which the Commission applies or intends to apply the precautionary principle when taking decisions relating to the containment of risk (COM 2001/1).
[178] See Regulation (EC) No. 178/2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety [2002] OJ L31/1, Art. 7 ('GFL Regulation').
[179] C. Lister, *EU Environmental Law* (Chichester: Wiley, 1997) 21.
[180] Most academics regard Art. 192 TFEU principles as binding: G. Winter, 'Constitutionalizing Environmental Protection in the EU' (2002) 2 *YbEEL* 76 and 'The Legal Nature of Environmental Principles in International, EC and German Law' in R. Macrory (ed.), *Principles of European Environmental Law* (Groeningen: Europa Law, 2004) 19–22 et seq.; A. Epiney, *Umweltrecht in der Europäischen Union* (Cologne: Heymanns, 1997) 108; and 'Environmental Principles' in Macrory (n 103), 21; C. Hilson, 'Rights and Principles in EU Law: A Distinction without Foundation' (2008)15 *MJ* 209; contra L. Krämer, '30 Years of EC Environmental Law: Perspectives and Prospectives' (2002) 2 *YbEEL* 163; and *EC Environmental Law*, 6th edn (London: Sweet & Maxwell, 2007) 15; E. Fisher, *Risk Regulation and Administrative Constitutionalism* (Oxford: Hart Publishing, 2007) 212. See also M. Doherty, 'Hard Cases and Environmental Principles: An Aid to Interpretation?' (2002) 3 *YbEEL* 157–68; and 'The Judicial Use of the Principles of EC Environmental Policy' (2002) 2 *Env L Rev* 251–63.

principles are binding.[181] As a result, EU institutions have to abide by these principles.[182] It follows that EU measures not complying with these principles are likely to be subject to judicial review, although the EU Courts leave to the institutions a rather broad margin for discretion, provided a number of formal conditions are met. In addition, as discussed later, Member States are obliged to apply these principles when carrying out action in the environment field that has been harmonized by secondary EU law.[183]

One further point is worth making here. The unclear meaning of some principles alone is not sufficient to deny their legal effect. Indeed, their meaning has been crystallized through the sheer number of judgments that will be briefly discussed in the following text. Nevertheless, given their generality, these principles always allow for the possibility of accommodation. As will be seen, there is some discretion in the way in which they can be fleshed out in more concrete measures. In other words, the EU institutions are able to envision different regulatory devices with the aim of implementing these principles. That said, the discretion may become non-existent where a principle such as precaution has been fleshed out in a comprehensive authorization scheme.[184]

7.1.3 *The status of the principles in the Member State legal orders*

The fact that the EU environmental policy has given rise to a large number of directives prompts the question whether Article 192(2) principles apply at national level.[185]

Several hypotheses could be advanced by way of answer but the following distinctions should be made. A distinction must be drawn between areas covered by secondary law and those which are not. Furthermore, a second distinction should be drawn between principles that are explicit in EU secondary legislation and those that are implicit.

First, we shall address the issue of the impact of these principles in areas that have not been harmonized. Given that they are addressed to EU institutions, these principles cannot constrain national authorities and are therefore devoid of direct effect. As a result, Member State actions may not, in principle, be reviewed on the basis of these principles if they have not been fleshed out expressly or implicitly in secondary law.[186]

Second, it should be borne in mind that few areas of national law fall outside the scope of EU obligations. In effect, Member States are bound by a swathe of directives and regulations aiming at protecting the environment. The question arises whether the Member State authorities could eschew the Treaty principles in implementing environmental directives. The answer is straightforward: in areas that have been harmonized by directives or regulations, the Treaty's environmental principles may apply both directly and indirectly to Member States through secondary legislation. Hence, two hypotheses can be distinguished.

On the one hand, the principles may apply in an autonomous manner to national authorities if the latter are obliged to implement EU directives that recognize one or more of the principles contained in Article 192(2) TFEU.[187] There are relevant examples to illustrate this situation. The GFL Regulation expressly states that the precautionary principle applies to measures adopted at the national level.[188] Likewise, in both Directive 2001/18/EC on the deliberate release of GMOs and Regulation 1107/2009 on the placing on the market of plant protection products, the precautionary principle is explicitly mentioned.[189] In this connection, national authorities are called on to conduct risk assessments of GMOs and plant protection products due to the extent of lingering uncertainties. By the same token, when applying the waste hierarchy, the Member States 'shall take into account' a cluster of principles, among which 'the general environmental protection principles of precaution and sustainability...'[190]

On the other, the Article 192(2) TFEU principles can implicitly underpin the whole regulatory framework contemplated by the EU lawmaker. In effect, where a principle enshrined in that provision is not explicitly set out either in the operative provisions or in the recitals of the preamble to a directive or a regulation it may still apply to Member States. Admittedly, Article 4(3) TEU obliges the Member States to 'take all appropriate measures... to ensure fulfilment of the obligations arising out of this Treaty or resulting from action taken by the institutions of the Union' and 'facilitate the achievement of the Union's tasks' as well as 'abstain from any measure which could jeopardize the attainment of the objectives' of the Treaty. Article 4(3) thus imposes on national authorities

[181] This provision reads: 'Union policy on the environment... shall aim (and)... shall be based on...'

[182] In *Artegodan*, the General Court held that the precautionary principle constituted 'a general principle f EU law requiring the competent authorities to take appropriate measures' (*Artegodan* (n 107), para. 184). gainst this background, the principle 'requires', pursuant to the rules applying to the re-authorization of a edicinal product, 'the suspension or the withdrawal of marketing authorisation when new scientific idence give rise to serious doubt as to the efficacy and the safety of the product' (para. 192). In *Pfizer*, the eneral Court observed that a public authority can, by reason of the precautionary principle, be *required* to t even before any adverse effects have become apparent (Case T-13/99 *Pfizer* [2002] ECR II-3305, para. 4). However, pursuant to Art. 7(1) of the GFL Regulation, the Community may adopt precautionary easures ([2002] OJ L31/1).

[183] Case C-127/02 *Waddenzee* [2005] ECR I-7405, para. 44.

[184] Case T-229/04 *Sweden v Commission* [2007] ECR II-2437.

[185] At the outset, several authors took the view that these principles were not justiciable before national urts. See J. Holder, 'Safe Science? The Precautionary Principle in UK Environmental Law' in J. Holder d.), *The Impact of EC Environmental Law in the UK* (Wiley, Chi.)

[186] Case C-378/08 *Agusta* [2010] ECR I-1919, para. 46. See also *R v Secretary of State for Trade and Industry, ex p Duddridge and others* (1995) *Env L Rev* 151 and *JEL* 7. In *Duddridge*, a case where a decision to lay an underground high-voltage electrical cable close to a school, the applicants argued that the Secretary of State was under a duty imposed by the EC Treaty to apply the precautionary principle. Although the risk assessment of the link between exposure to an electromagnetic field and the increased risk of leukaemia among children was inconclusive, the High Court declined to interpret English law by referring to the EC principle. The precautionary principle was deemed to be merely a 'principle' but neither a 'rule' nor a binding Treaty obligation. Attention must be drawn to the fact that it was not disputed whether the Environmental Impact Assessment Directive 2011/29/EU had to apply to the installation of the power cable ([2012] OJ L26/1).

[187] N. D'Hondt, 'Environmental Law Principles and the Case Law of the Court of Justice' in M. Sheridan and L. Lavrysen (eds), *Environmental Law Principles* (Brussels: Bruylant, 2000) 141–55.

[188] Food Safety Regulation (EC) No. 178/2002 ([2002] OJ L31/1), recital 16.

[189] Directive 2001/18/EC on the deliberate release of GMOs [2001] OJ L106/1, recital 8 and Art. 1; Regulation 1107/2009 concerning the placing of plant production product [2009] OJ L309/1, Art. 1(4).

implement the principles of prevention and precaution.[191] Moreover, the national authorities are called on strictly to interpret the environmental obligations stemming from secondary law, irrespective of whether the directives or regulations encapsulate these principles. For instance, with respect to the assessment and authorization procedures within Natura 2000 sites laid down in the Habitats Directive, account must be taken of the principle of precaution referred to in Article 192(2) TFEU although the principle is not mentioned as such in that directive.[192]

Lastly, in order to justify the proportionality of their measures hindering the free movement of goods, Member States may invoke the precautionary principle.[193]

7.1.4 *Environmental principles: shield or sword?*

A principle enshrined in Article 191(2) TFEU is likely to be viewed as a double-edged sword.

On the one hand, the EU lawmaker may justify the validity of its regulatory measures in the light of the Article 192(2) TFEU principles. By way of illustration, the preventive and remediation measures flowing from the environmental liability directive are justified by the polluter-pays principle.[194] Accordingly, in actions for annulment brought by private parties pursuant to Article 263 TFEU against an EU measure aiming to limit health or environmental risks, the institutions have regularly been invoking principles such as precaution to justify the soundness of their measures.

On the other hand, in infringement cases brought by virtue of Article 258 TFEU by the European Commission against Member State health and environmental measures on the grounds that they are hindering—for instance, free trade in goods—the national authorities may invoke the principles as a shield in order to justify the validity of the measures.[195] Clearly, there has been increasing use of the precautionary principle by Member States to derogate from the principle of free movement of goods where the matter has not been harmonized or with a view to departing from internal market harmonization by virtue of Article 114(4) and (5) TFEU.[196] Thus, to some extent EU secondary law may encourage the use of a principle as a shield.[197]

[191] A. Doyle and T. Carney, 'Precaution and Prevention: Giving Effect to Article 130r Without Direct Effect' (1999) 8 *EEELR* 44.

[192] In *Waddenzee*, the Court of Justice assessed the validity of a Dutch project in the light of the EU precautionary principle (Case C-127/02 *Waddenzee* [2004] ECR I-7405, para. 44).

[193] Opinion AG Geelhoed in Case C-121/00 *Walter Hahn* [2001] ECR I-9193, para. 51; and Opinion AG Bisho in Case C-6/99 *Greenpeace France* [2000] ECR I-1676, para. 202. See the discussion in Chapter 5, Section 7.3.

[194] European Parliament and Council Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L43/56, Art. 1. See Case C-378/08 *Raffinerie Méditerrannée* [2010] ECR I-1919, para. 57.

[195] J. Zander, *Different Kinds of Precaution* (Cambridge: CUP, 2010) 113.

[196] Case C-3/00 *Denmark v Commission* [2003] ECR II-2643; and Joined Cases T-366/03 & T-235/04 *Germany v Austria* [2005] ECR II-4005. See the discussion in Chapter 7, Section 3.

[197] By way of illustration, pursuant to Regulation (EC) No. 1107/2009, 'Member States shall not be prevented from applying the precautionary principle where there is scientific uncertainty as to the risks with regard to human or animal health or the environment posed by the plant protection products [...] authorized in their territory.' See European Parliament and Council Regulation (EC) No. 1107/2009 concerning the placing of plant protection products on the market [2009] OJ L309/1, Art. 1(4).

It appears that the EU Courts are at their most deferential in cases in which the Commission invokes the precautionary principle. However, the grounds for judicial review will be set much higher when Member States invoke the same principle with a view to justifying measures which are restrictive of trade.[198]

7.2 The principle of a high level of environmental protection

7.2.1 *Legal status*

Pursuant to Article 3(3) TEU, Article 191(2) TFEU, and Article 37 EUCFR, EU policies shall aim at attaining a high level of environmental protection. With respect to measures related to the establishment and the functioning of the internal market, Article 114(3) TFEU lays down a similar obligation. Given that these obligations present a number of challenges for lawyers, some introductory thoughts on the matter are set out in the following text.

First, unlike the prevention or the precautionary principles, none of these provisions proclaim, as such, a 'principle' of a high level of environmental protection. That said, the EU Courts as well as several commentators have qualified this obligation as a principle.[199]

Second, since the requirement laid down by Article 3(3) TEU, Article 191(2) TFEU, and Article 37 EUCFR no longer concerns protection alone but also an 'improvement of the quality of the environment', this obligation has a dynamic nature. EU institutions are therefore expected to adopt a more interventionist than conservative stance. In other words, they are not only required to avoid degradation of the environment, but must also seek to improve its quality as well as their citizens' standard of living.

Third, nothing is said of the ways in which the EU should achieve such a high level of environmental protection: although Article 191(2) TFEU lists a number of other principles that could enhance the level of protection. As a result, both the Court of Justice and the General Court have combined the obligation to achieve a high level of environmental protection with the principles of prevention and precaution.[200] By the same token, in *Tatar v Romania*, the ECtHR stressed that the precautionary principle could be seen as a basis for the obligation to attain a high level of environmental protection.[201] In addition, other principles laid down in Article 191 also oblige the EU institutions to attain a high level of protection. These include the standstill principle[202]

[198] Opinion AG Poiares Maduro in Case C-41/02 *Commission v Netherlands* [2004] ECR I-11375, para. 30; Opinion AG Kokott in *Afton* (n 138), para. 74.

[199] D. Misonne, *Droit européen de l'environnement et de la santé: l'ambition d'un niveau élevé de protection* (Louvain: Anthémis, 2010); N. de Sadeleer, 'The Principle of a High Level of Environmental Protection in EU Law' in C. Zetterberg and L. Gipperth (eds), *Festskrift G. Michanek and J. Darpö* (Uppsala: Iustus, 2013).

[200] Cases C-418 & 419/97 *ARCO Chemie Nederland* [2000] ECR I-4475, paras 36–40; and Case C-252/05 *Thames Water Utilities* [2007] ECR I-3883, para. 27.

[201] *Tatar v Romania*, 27 January 2009, para. 120.

[202] Art. 2(4) OSPAR Convention (Council Decision of 7 October 1997, OJ [1998] L104/1); European

first, a stringent implementation of the obligations laid down in the Birds Directive[204] and, second, that ecological criteria guiding the classification of Natura 2000 bird sites should not be offset by economic considerations.[205]

Fourth, insufficient attention has hitherto been given to the level of stringency of EU measures in the light of this principle. Regardless of whether it relates to the internal market by virtue of Article 114(3) TFEU or environmental policy by virtue of Article 3(3) TEU and Article 191(2) TFEU, the wording of the obligation to seek a high level of environmental protection is perplexing. For instance, a measure proposed by the Commission may appear at the same time draconian in the eyes of the Member States where environmental policy is more lenient, and yet insufficient for other Member States. There is a question whether the EU should strive for maximal protection,[206] zero tolerance, or even zero risk.[207] Does it follow from these Treaty provisions that the level of protection must be calculated at the highest conceivable level? Or should lawmakers make do with an intermediate level of protection? The uncertainty in the scope of this obligation does not, however, mean that the EU institutions enjoy absolute discretion in this regard. It is beyond question that a non-existent or low level of protection would violate this Treaty law obligation.[208]

Nonetheless, with respect to the harmonization taking place in the environmental realm, a minimum degree of flexibility would appear to be permissible by virtue of Article 191(2) TFEU in view of the differences between regional situations. In addition, pursuant to Article 191(3) TFEU, the quest for high protection levels is tempered by the obligation to take into account differences between situations in various regions of the EU. Similarly, the ability of Member States to adopt enhanced protection measures pursuant to Article 193 TFEU[209] indicates that the benchmark need not necessarily be the highest possible. This seems to be logical: certain countries suffer from drought whilst others are prone to flooding and species endangered within the territory of one Member State are not necessarily under threat elsewhere.[210]

Reasoning by analogy, from the point of view of the establishment of the internal market, Article 27 TFEU, along with the provisions of Article 114(10) TFEU, confirm that it is not necessarily mandatory to obtain the highest level of protection.

However, this variation brings with it the risk of weakening protection levels. Due to the absence of uniform protection, one may fear à la carte exceptions and the toning down of obligations as a function of geographic area.[211]

Finally, in the absence of harmonization and to the extent that uncertainties continue to exist in the current state of scientific research, it is for the Member States to decide on their intended level of protection of human health and life.[212]

7.2.2 *High level of environmental protection and of other societal values*

At this point a number of legal issues relating to the implementation of similar obligations encapsulated in the TFEU and EUCFR will be enumerated (see Table 1.2). Indeed, public health and consumer protection policies reiterate this qualitative requirement[213] and, moreover, the EU is called on to promote a 'high level of employment'.[214] Conversely, the internal market policy must fully integrate these various concerns since, by virtue of Article 114(3) TFEU, the internal market Commission's proposals must pursue a high level of protection when they concern health, safety, environmental protection, and consumer protection.[215]

Be it for workers, patients, consumers, or the environment, the requirement to attain a 'high level of protection' has barely attracted any attention and has been the object of

of water policy [2000] OJ L327/1, Arts 4(9) and 11(6). Under certain circumstances, loss of protected habitats can be authorized provided that compensatory measures are carried out (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7, Art. 6(4)). As regards the prohibition of relaxation of health standards applicable to herds of domestic animals likely to be affected by transmissible spongiform encephalopathies, see Case T-257/07 P, order of 28 September 2008 and Case T-257/07 P II, order of 30 October 2008, paras 86 and 89.

[203] Pursuant to Art. 15 of the Convention on Nuclear Safety (17 June 1994), approved by Commission Decision 1999/819/Euratom of 16 November 1999 concerning the accession to the 1994 Convention on Nuclear Safety by the European Atomic Energy Community (OJ [1999] L318/20), 'Each Contracting Party shall take the appropriate steps to ensure that in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits.'

[204] It is clear on reading Art. 2 of the Birds Directive that 'ecological, scientific and cultural requirements' take precedence over 'economic and recreational requirements', the latter playing only an ancillary role (Case C-247/85 *Commission v Belgium* [1987] ECR 3029; and Case C-262/85 *Commission v Italy* [1987] ECR 3073). Furthermore, given that birds and habitats are considered a 'common heritage', Member States are being called upon accurately to transpose the directive's obligations. See Case C-247/85 *Commission v Belgium* [1987] ECR 3029, para. 9; Case C-38/99 *Commission v France* [2000] ECR I-10941, para. 53; Case C-6/04 *Commission v UK* [2005] ECR I-9017, para. 25; and Case C-508/04 *Commission v Austria* [2007] ECR I-3787, para. 57.

[205] Case C-44/95 *Regina* [1996] ECR I-3805, paras 23–5.

[206] With respect to the health and safety of workers, employers have 'to ensure that the risk from a hazardous chemical agent to the safety and health of workers at work is eliminated or reduced to a minimum' (Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work [1998] OJ L131/11, Art. 6(1)).

[207] In the field of food safety, the EU lawmaker has endeavoured to find a zero risk approach (Case C-286/02 *Bellio Flli* [2004] ECR I-3465). With respect to consumer protection, see Cases C-305/03 & C-229/04 *Schulte* [2005] ECR I-9215.

[208] A. Epiney, 'Environmental Principles' in Macrory (n 180), 28; D. Misonne (n 199), 63, 167, and 399.

[209] Chapter 7, Section 2.

[210] See Annex IIB to Directive 2009/147/EC on the conservation of wild birds [2009] OJ L20/7.

[211] The Waste Packaging Directive is a good case in point in this respect. Eg, because of their specific situation, some Member States in Southern Europe may decide to postpone the attainment of recycling targets (European Parliament and Council Directive 94/62/EC on packaging and packaging waste [1994] OJ L365/10, Art. 6(5)).

[212] See Case 174/82 *Sandoz* [1983] ECR I-2445, para. 16; Case C-192/01 *Commission v Denmark* [2003] ECR I-9693, para. 42; and Case C-24/00 *Commission v France* [2004] ECR I-1277, para. 49.

[213] By virtue of Art. 168(1) TFEU 'a high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities' whereas pursuant to Art. 169(1), 'in order to promote the interests of consumers and to ensure a high level of consumer protection', the Union shall contribute to safeguard various consumers' interests. In addition, Arts 35, 37, and 38 EUCFR require the achievement of a high level of health, environmental protection, and consumer protection.

[214] Art. 9 TFEU.

[215] However, in *Schulte* the Court of Justice held that the requirement for a high level of protection contained in ex Art. 95(3) EC (Art. 114(3) TFEU) was not directly applicable to national authorities, irrespective of its implementation under secondary law. This obligation was therefore not directly binding on the Member States. See Cases C-350/03 & C-229/04 *Schulte* [2005] ECR I-9215, para. 61, noted by E. Jerry (2007) 44 *CML Rev* 501–18.

Values	EU-TFEU provisions	EUCFR provisions
Environment	Article 3(3) EU, Articles 114 (3) and 191 TFEU	Article 37
Health	Articles 114(3) and 168 TFEU	Article 35
Consumers	Articles 114(3) and 169 TFEU	Article 38
Worker safety	Article 114(3) TFEU	—
Employment	Article 9 TFEU	—

only a few commentaries in the academic literature. These obligations have often been classed in the category of declarations of intent. They are considered at best as policy principles devoid of any binding force, or as a guarantee of legitimacy which is automatically placed on draft regulations, directives, and decisions.

There is initially a strong doctrinal resistance to the idea that the EU Courts may control compliance with the requirement for a high level of protection irrespective of the subject matter. It is argued that it is not a matter for the Courts to interfere with the margin of appreciation that is naturally reserved to the EU institutions. This is claimed to undermine the very idea of the separation of powers. Strictly speaking, institutions not the Courts are called on to determine the optimal level of protection. Accordingly, he obligation to improve living and working standards which is incumbent upon the Member States in the area of social protection has been interpreted as being of a general nd policy nature.[216]

By way of illustration, in a case concerning the safety of working conditions, with an vident environmental element since the danger threatening the health of workers ame from petrol vapours emitted by service stations, the Court of Justice held that it as not a matter for the Court to review the proportionality of a duty to reduce the use f a carcinogen at a place of work, without linking that requirement to the outcome of a sk assessment.[217] Admittedly, it is not for the Court of Justice to interfere with the erification of more stringent measures (more stringent thresholds, reductions in time nits, or extensions to the scope of application, etc) than those which form the subject atter of Community action. Review of the proportionality of these measures is a atter for the national courts.

That said, these obligations to attain a high level of protection are likely to become erpretative principles where a conflict between economic and antagonist societal jectives arises. The need to guarantee a high level of protection for health had already l the Court of Justice to emphasize the efficacy of a directive adopted pursuant to ticle 114 TFEU in order to justify its compatibility with the general principles of EU . For instance, in *Tobacco II*, the Court of Justice held that in situations where there risk of divergence resulting from differing levels of protection at the national level, common goal of achieving a high level of protection for health means that it is essary to harmonize national regulations.[218] Similarly, only a prohibition on the

[6] Case C-126/86 *Gimenez-Zaera* [1987] ECR I-3697; and Case C-72/91 *Sloman-Neptune* [1993] ECR 7.

[7] Case C-2/97 *Borsana* [1998] ECR I-8597, para. 40.

[8] Case C-380/03 *Germany v European Parliament and Council* [2006] I-11573, paras 40–1

pursuit of a high level of health protection, going beyond economic interests.[219] In other words, an effective policy of prevention will contribute to achieving a high level of protection. This assertion, made with reference to public health, is of course capable of applying to the environment.

7.2.3 *Secondary law*

If Article 3(3) TEU, Article 191(2) TFEU, and Article 37 EUCFR are not to be rendered ineffective, they must be fleshed out with more precise regulatory devices. As regards the place of the obligation to seek a high level of environmental protection in secondary law five issues arise for comment.

First, whilst it has taken care to do so rather sparingly for the polluter-pays and the precautionary principles, the EU lawmaker has not hesitated to proclaim the need for a high level of protection under a number of secondary law obligations.[220] For instance, compliance with this obligation is a prerequisite for the admissibility of State aids in environmental matters: in order to raise the level of environmental protection beyond that provided under national law, only aids which encourage such protection may benefit from an exemption.[221]

Second, the achievement of this principle is betrayed by a relatively heterogeneous terminology: 'significant improvement', 'adequate level of protection', 'optimal protection', 'good conservation status', 'good chemical and ecological status of water', and so on. Similarly, environmental law abounds with expressions that are testament to a search for optimization or excellence: best available technologies, energy efficiency, resource efficiency, etc.

Third, the lack of precision as to the meaning of these terms can lead to significant variations in their implementation. For instance, the obligation not to endanger human health or the environment while managing waste, which is laid down in the Waste Framework Directive, does not specify the actual content of the measures which must be taken by the Member States.[222] Nevertheless, it is settled case law that this provision is binding on the Member States as to the objective to be achieved, whilst leaving them a margin of discretion in assessing the need for such measures.[223]

[219] Case C-434/02 *Arnold André* [2004] ECR I-11825; and Case C-210/03 *Swedish Match* [2004] ECR I-11893, paras 56 and 57.

[220] The former IPPC 2008/1/EC Directive ([2008] OJ L24/8) refers at least ten times to the obligation to achieve a high level of protection. Such an obligation can require the promotion of 'high quality recycling' pursuant to Art. 11(1) of Directive 2008/98/EC on waste [2008] OJ L312/3.

[221] Environmental State Aids Guidelines 2008, paras 5.2.1.3 and 171; General Block Exemption Regulation (EC) No. 800/2008 [2008] OJ L214/3, Art. 8(1). See N. de Sadeleer, 'State Aids and Environmental Measures' (2012) *Nordic Journal of Environmental Law* 3–13.

[222] European Parliament and Council Directive 2006/12/EC on waste [2006] OJ L114/9, Art. 4(1); Directive 2008/98/EC on waste [2008] OJ L312/3, Art. 13. See Case C-236/92 *Comitato di Coordinamento per la Difesa della Cava* [1999] ECR I-485.

[223] Case C-365/97 *Commission v Italy* [1999] ECR I-7773, para. 67; Case C-420/02 *Commission v Greece* [2004] ECR I-11175, para. 21; and Case C-297/08 *Commission v Italy* [2010] ECR I-1749, para. 96.

should lead to regulatory intervention varies significantly from one regulation to another. Whereas several chemical regulations squarely prohibit the use of chemical substances, companies may under the REACH Regulation place on the market hazardous chemicals the risks of which can be 'adequately controlled'.[225]

A fifth issue emerges as being of particular importance. Most of the EU measures aiming to protect the environment do not seek an absolute level of protection.[226] The following illustrations are testament to the restricted approach endorsed by the EU lawmaker. For instance, EU institutions or national authorities are called upon to eliminate or to prevent the occurrence of:

- an '*unacceptable effect* on the environment' of residues of plant protection products;[227]
- the '*serious risk* to human or animal health or to the environment' of seeds treated with plant protection products;[228]
- 'a *serious risk* to human health, animal health or the environment' must be demonstrated in order to 'suspend or modify urgently an authorisation' on the placing on the market of genetically modified food and feed.[229] Moreover, 'the expressions "likely" and "serious risk" must be understood as referring to a significant risk which clearly jeopardises human health, animal health or the environment'. That risk must be established on the basis of new evidence based on reliable scientific data.[230] Departing from its previous case law, the Court of Justice did not invoke precaution at all with a view to softening these requirements.[231]

Similarly, Member States are obliged to assess 'projects likely to have *significant* effects on the environment'.[232]

It follows that insignificant risks are likely to fall outwith the ambit of a number of EU regulatory schemes.

[224] N. de Sadeleer, *Commentaire Mégret. Environnement et marché intérieur* (Brussels: ULB, 2010) 331–3.

[225] Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals [2006] OJ L396/1, Art. 57(2).

[226] However, under legislative acts regarding health protection EU intervention is not subject to a specific threshold. See, in particular, Food Safety Regulation (EC) No. 178/2002 [2002] OJ L31/1, Art. 7(1). Under that provision, with a view to ensuring a high level of health protection, 'provisional risk management measures' may be adopted in order to prevent 'the possibility of harmful effects on health'. No threshold has been set for the significance of these effects.

[227] European Parliament and Council Regulation (EC) No. 1107/2009 concerning the placing of plant protection products on the market [2009] OJ L309/1, Art. 4(2)(b).

[228] Regulation (EC) No. 1107/2009, Art. 49(2) (n 227).

[229] European Parliament and Council Regulation (EC) No. 1829/2003 on genetically modified food and feed [2003] OJ L268/1. See Cases C-58–68/10 *Monsanto* [2011] OJ C311/8.

[230] *Monsanto* (n 229), paras 69 and 76.

[231] *Monsanto Agricultora Italia* (n 162), para. 112. See M. Weimer, 'The Right to Adopt Post-Market Restrictions of GM Crops in the EU' (2012) *EJRR* 447 and 451.

[232] Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment [2001] OJ L197/30, Art. 2(1).

By the same token, the EU Courts are also requiring the EU institutions and the Member States to assess whether the environment risk is real or significant. There are various examples in the case law.

- 'A *significant deterioration* in the environment over a protracted period without any action being taken by the competent authorities' may be an indication that the Member State has exceeded the discretion conferred by a framework directive on environmental protection.[233]
- National measures restricting the trade in wild mammals and birds bred in captivity can be justified inasmuch as there is a '*real risk*' to animal welfare and biodiversity.[234]
- 'The *significant environmental effects* caused by the incorrect implementation of the urban wastewater directive must be substantiated by a certain amount of evidence'.[235]
- Another illustration of the threshold regarding the significance of the risk is the case law on eutrophication of water within the meaning of Council Directive 91/271/EEC concerning urban wastewater treatment.[236] Eutrophication is characterized by, among other conditions, an '*undesirable*' disturbance to the balance of organisms present in the water, which 'must be considered to be established where there are *significant adverse effects* on flora or fauna'.[237] It follows that an accelerated growth of algae is not sufficient, as such, to demonstrate such 'undesirable disturbance'. Hence, the Commission bears the brunt of the burden of proof to demonstrate 'loss of ecosystem biodiversity, nuisances due to the proliferation of opportunistic macroalgae and severe outbreaks of toxic or harmful phytoplankton'.[238]

Finally, it should be recalled that Article 8 ECHR is engaged where the alleged nuisance is 'sufficiently serious' adversely to affect the applicant's right to private and family life.[239]

That said, environmental directives can also be more ambitious. For instance, the scope of waste law encompasses every waste irrespective of whether it is subject to 'ecologically responsible treatment'.[240] Likewise, all threats to Natura 2000 habitats are subject to a preventive regime.

[233] Case C-365/97 *Commission v Italy* [1999] ECR I-7773, para. 68; Case C-420/02 *Commission v Greece* [2004] ECR I-11175, para. 22; Case C-297/08 *Commission v Italy* [2010] ECR I-1749, para. 101; and Case C-37/09 *Commission v Portugal* [2010] ECR I-76, para. 38.

[234] Case C-219/07 *Andibel* [2008] ECR I-4475, para. 36; Case C-100/08 *Commission v Belgium* [2009] ECR I-140, para. 100.

[235] Case C-508/03 *Commission v UK* [2006] ECR I-3969, para. 78; and Case C-390/07 *Commission v UK* [2009] ECR I-214, para. 46.

[236] [1991] OJ L135, Art. 40.

[237] Case C-280/02 *Commission v France* [2004] ECR I-8573, paras 22 and 23; and Case C-390/07 *Commission v UK* [2009] ECR I-214, para. 36.

[238] C-390/07 *Commission v UK* [2009] ECR I-214, paras 36 and 38.

[239] *Mileva v Bulgaria*, 25 November 2010, para. 91. See the discussion in Chapter 2, Section 4.3.2.1.

[240] Cases C-418/97 & C-419/97 *Arco Chemie* [2004] ECR I-4475, para. 67. In this judgment, the Court dismissed the reasoning of AG Alber who proposed excluding from the concept of waste any substances which did not 'pose a danger typical of waste' (para. 109).

Unknown probability of serious or irreversible damage	Precautionary measures aiming at achieving a high level of environmental protection
Probability of a significant risk	Preventive measures aiming at achieving a high level of environmental protection
Insignificant risks	Variable scenarios depending on the scope of the directives and regulations

Table 1.3 highlights the different regulatory approaches according to the level of gravity of environmental harm.

7.2.4 *Case law*

7.2.4.1 Reviewing the legality of EU acts

Since they are binding on the EU institutions, environmental and health measures may be subject to review in the light of this requirement. The Court of Justice has held that when adopting the prohibition on the use and marketing of hydrochlorofluorocarbon (HCFC), 'the Community legislature did not infringe the requirement of a high level of protection laid down in Article 130r(2) EC since no manifest error of assessment had been committed when determining the level of protection'.[241] In stressing that the requirement is compulsory, the Court departed from Advocate General Léger's Opinion. The Advocate General considered that the obligation to aim at a high level of protection 'must... be interpreted as a recommendation addressed to the Community legislature, under which the latter is called upon to ensure that the policy already being pursued is constantly improved'.[242] On the other hand, in 1999 Advocate General Cosmas asserted his view that the level of protection in environmental matters is binding on the legislator when it acts on the basis of ex Article 130r EC (Art. 192 TFEU). As a result, an EU measure that does not meet 'that qualitative criterion' could be annulled.[243]

Account must be taken of new case law developments regarding the placing on the market of chemical substances. In the *DecaDBE* case, the Court of Justice held that the prohibition on the use of certain hazardous substances in electrical and electronic equipment implies, in accordance with the requirement for a high level of protection, that the Commission may 'grant exemptions only in accordance with carefully defined conditions' and that the conditions for exemption be interpreted strictly.[244] In this case, the fact that the directive had been enacted on the basis of Article 95 EC (Art. 114 TFEU) did not have the effect of exempting the Commission from the requirement to respect the obligation for a high level of protection under Articles 152 and 174 EC (Arts 168 and 191(1) TFEU).

[241] Case C-341/95 *Safety Hi-Tech SRL* [1998] ECR I-4355, para. 53.
[242] Opinion AG Léger in Case C-341/95 *Safety Hi-Tech SRL* [1998] ECR I-4355, para. 67.
[243] Opinion AG Cosmas in Case C-318/98 *Fornasar* [2000] ECR I-4785, para. 32.
[244] Cases C-14/06 & 295/06 *Parliament and Denmark v Commission ('décaBDE')* [2008] ECR I-1649, paras 74 and 75.

Court of Justice does not require an immediate optimal level of protection. Given that the implementation of EU protective measures may be carried out gradually, the most stringent option does not prevail immediately. For instance, the prohibition of a substance which depletes the ozone layer does not necessarily entail the outlawing of other gases, even if the general application of the measure would have permitted a higher level of protection.[245] Similarly, the subjection of certain polluting plants to the EU ETS does not imply the immediate extension of this regime to all installations emitting such gases.[246] To conclude, the Court appears to be satisfied with an intermediate level of protection, in particular at the initial stage of the implementation of a new regulatory approach.

The obligation to achieve a high level of environmental protection also impinges on the manner in which the lawmaker complies with the principle of proportionality. In this respect, *Afton* is a case in point. The Court was asked to rule on whether an EU limit for the presence of a metallic additive likely to cause air pollution in fuel complied with the principle of proportionality. The Court stressed that 'the European Union legislature could justifiably take the view that the appropriate manner of reconciling the high level of health and environmental protection and the economic interests of producers of the substance' was to limit its content 'on a declining scale while providing for the possibility... of revising those limits on the basis of the results of assessment'.[247]

7.2.4.2 An interpretative principle of the scope of EU environmental regimes

The obligation to seek a high level of protection is also an interpretative principle as regards the validity of EU legislation. By way of illustration, the harmonization of criminal penalties in the context of the first pillar was justified by Advocate General Ruiz-Jarabo Colomer with reference to the obligation to achieve a high level of protection and to improve the quality of the environment, as provided for under ex Article 2 EC (Art. 3(3) TEU).[248] The registration of 'monomer substances' is confirmed by the objectives of the REACH Regulation, 'which consist in ensuring a high level of protection of human health and the environment'.[249]

7.2.4.3 An interpretative principle of the environmental obligations placed on Member States

The scale necessary in order to be successful in establishing an effective policy on the environment, taken together with the ongoing concern to eliminate barriers to the free movement of goods and services, evidently call for the adoption of harmonized rules. Indeed, harmonized rules have the advantage of putting all of the Member States on an

[245] Case C-341/95 *Safety Hi-Tech SRL* [1998] ECR I-4355, para. 47.
[246] Case C-127/07 *Arcelor Atlantique et Lorraine* [2008] ECR I-9895, para. 32.
[247] *Afton* (n 138), para. 64.
[248] Opinion AG Ruiz-Jarabo Colomer in Case C-176/03 *Commission v Council* [2005] ECR I-7879, para. 72.
[249] Case C-558/07 *SPCM and others* [2009] ECR I-5783, para. 35.

from the regulatory obligations.

One further point is worth making here. In contrast to the areas of health and consumer and employment protection, a number of environmental issues are distinctly less tied to concerns over the functioning of the internal market. Admittedly, with respect to wildlife, water, soil, air, and ecosystem protection, a high level of environmental protection may be achieved, independent of the need to eliminate technical barriers to the free movement of goods. Additionally, where the harmonization is, in principle, minimal in nature (Art. 193 TFEU), nothing prevents the Member States which so wish from reinforcing the EU standards of protection.[250]

However, since the harmonization process is replete with rather loose requirements and opt-out clauses, Member States are likely to be encouraged to follow the lowest common denominator. As has been seen in the fight against global warming, the possibility offered to the Member States to determine for themselves the number of allowances to allocate to each industrial sector concerned, has led national authorities to be very generous to their own industries.[251] As a result, derogatory regimes are likely to encourage some Member States to depart from the obligation to seek a high level of environmental protection.

Be that as it may, it is clear from the case law that the obligation to achieve a high level of protection inevitably impinges on the margin of appreciation of the authorities called upon to implement EU environmental law. According to the Court of Justice's case law, this is an interpretative principle. The following cases are illustrative of the ways in which the obligation can tilt the balance in favour of more rigorous interpretation of environmental regimes.

- This may be illustrated by the case law on the concept of waste. The term 'to discard' an object or substance liable to become waste and, accordingly, the scope of the framework directive on waste, must be interpreted not only in the light of the objectives set forth by the lawmaker, but also in the light of the obligation to achieve a high level of protection.[252] This means that the concept of waste cannot be interpreted restrictively.
- By the same token, the concept of biocide cannot be interpreted restrictively. Given that Directive 98/8 governing the placing of biocidal products on the market takes 'as a condition a high level of protection for humans, animals and the environment', such a level of protection could be seriously jeopardized if classification as biocidal products were to be interpreted too narrowly. Consequently, the directive's scope of application encompasses not only 'those products containing one or more active substances and having a direct chemical or biological effect on the target harmful organisms', but also 'products which... contain one or more active substances but exert only an indirect chemical or biological effect on those organisms'.[253]
- Given that the precautionary principle is one of the foundations of the high level of environmental protection, nature conservation requirements must be strictly interpreted.[254]
- In a similar vein, under the framework directive on waste, national water regulations applicable to domestic wastewater discharged from sewage works can be imposed as an alternative to EU waste law inasmuch as they guarantee a level of protection equivalent to that resulting from the application of EU waste law.[255]
- The determination of the relevant control procedure is also likely to be influenced by the principle. Regulation No 1013/2006 on shipments of waste establishes various procedures and control regimes for the shipment of waste depending, inter alia, on the origin, destination, and route of the shipment, and on the type of waste shipped. A German court asked the Court of Justice whether Regulation No 1013/2006 was to be interpreted as meaning that the export to Lebanon of catalyst waste is prohibited. The case arose from the fact that catalysts fall within two different categories, one of which means that export of the waste concerned is prohibited, whereas the other means that a special control procedure is to be implemented by the country of destination. Advocate General Bot took the view that where there is uncertainty regarding the treatment of waste being exported outside the EU, 'it is necessary to choose the narrowest approach, making it possible to limit shipments of waste: namely, the prohibition of exports. That is also the best approach for attaining the objective of protecting human health and the environment, which Regulation No 1013/2006 is designed to achieve.'[256] The Court of Justice endorsed that line of reasoning.[257]
- *Inter-Environnement Wallonie* raises similar issues, but in the context of an entirely different set of facts. The effects of a regional programme concerning the protection of waters against pollution caused by nitrates, adopted in accordance with Nitrates Directive 91/676, can be exceptionally maintained by a national court in spite of its annulment for reasons linked to the violation of another environmental directive.[258] In effect, the programme at issue had not been subject to a strategic impact assessment pursuant to Directive 2001/42. To justify the maintenance of the protective effects of the programme, the Court of Justice stressed that annulling the illegal order could result 'in a lower level of protection of waters against pollution caused by nitrates from agricultural sources, given that this would run specifically counter to the fundamental objective of that directive, which is to prevent such pollution'.[259]

[250] Art. 193 TFEU. See the discussion in Chapter 7, Section 2.

[251] A. Brohé, N. Eyre, and N. Howarth, *Carbon Markets* (London: Earthscan, 2009) 120–2; J. de Sépibus, 'Scarcity and Allocation of Allowances in the EU Emissions Trading Scheme—A Legal Analysis', NCCR Trade Working Paper 2007/32, 36.

[252] Cases C-418 & 419/97 *ARCO Chemie Nederland* [2000] ECR I-4475, paras 36–40; Case C-252/05 *Thames Water Utilities* [2007] ECR I-3883, para. 27.

[253] *Söll* (n 138), para. 27.

[254] Case C-127/02 *Waddenzee* [2004] ECR I-7405, para. 44; and Opinion AG Sharpston in Case C-258/11 *Peter Sweetman* [2012] OJ C156, para. 51.

[255] Case C-252/05 *Thames Water Utilities* [2007] ECR I-3883.

[256] Opinion AG Bot in Case C-405/10 *Garenfeld* [2011] OJ C25/14, para. 69.

[257] *Garenfeld* (n 256), para. 47.

[258] Cases C-105/09 & C-110/09 *Terres Wallones et Inter-Environnement Wallonie* [2012] ECR I-5611,

be relied on by the Member States in order to circumvent the obligations resulting from the implementation of environmental directives. Support for this proposition may be found in the following case. The Commission initiated an infringement action against Spain due to its failure to implement the former Integrated Pollution Prevention and Control (IPPC) Directive correctly, in particular with regard to its failure to require administrative authorization for existing listed installations. Spain had argued that this directive only had the goal of achieving a high level of environmental protection and not a maximum level. Since 88.53 per cent of installations existing in Spain would be operated in accordance with the directive on expiry of the time limit set in the Commission's reasoned opinion, the Spanish authorities argued that a high level of environmental protection had been achieved. The Court of Justice dismissed this argument on the ground that the directive required 'complete and total implementation' by the Member States.[260]

That said, the obligation to seek a high level of environmental protection can also be invoked by Member State authorities when enacting measures likely to hinder the free movement of goods. It hardly needs to be pointed out that the free movement of waste may be affected by waste management measures which may differ substantially from one Member State to another. In its *EU-Wood* judgment, the Court of Justice considered a German export measure in the light of the obligation to achieve a high level of protection pursuant to ex Article 2 EC (Art. 3(3) TEU). The Court accepted that the most stringent national criteria may prevail within the context of controls over the cross-border movement of waste. In order to appreciate the risks which the waste recovery operation in another country entails, the German competent authority of dispatch was entitled, in accordance with a teleological interpretation of the regulation in the light of the obligation to seek a high level of protection, to rely on the standards applicable to the recovery of waste within its national territory, even where its own standards were stricter than those in force in the Member State of destination (Italy).[261] The Court thereby accepted the extra-territorial application of the most stringent standards.

The polluter-pays principle

.1 *Genesis*

Given a name that is almost a slogan and the seeming clarity of its underlying logic, the polluter-pays principle easily wins approval. Its main function is to internalize the social costs borne by public authorities for pollution prevention and control. Accordingly, the principle serves as an economic rule according to which a portion of the profits accruing to polluters as the result of their activities must be returned to the public authorities responsible for inspecting, monitoring, and controlling the pollution these activities produce. However, as it attaches a price to the right to pollute, the distributive function has attracted criticism that is not entirely unfounded. Consequently, it is seen as accepting environmental degradation as inevitable, provided that

[260] Case C-48/10 *Commission v Spain* [2010] ECR

the polluter pays: I pay, therefore I pollute. For the polluting firm, [illegible] merely represents a supplementary tax. The result is to perpetuate pollution as long as charges cover the costs of the regulatory tasks relating to pollution control and abatement. Moreover, the purely distributive function may be subject to an even more fundamental criticism. To speak of a polluter is to evoke ecological damage, which in turn means that such damage has already taken place—that is, prevention is no longer of any use.

Of course, such criticisms must be nuanced.

First, polluter-pays and preventive principles could be viewed as constituting two complementary aspects of a single reality. Put at the service of prevention, the polluter-pays principle should no longer be interpreted as allowing a polluter who pays to continue polluting with impunity. The true aim of the principle would then be to institute a policy of pollution abatement by encouraging polluters to reduce their emissions instead of being content to pay charges. Indeed, the principle aims to correct market failure: the costs of pollution should be reflected in the price of services and products and be borne by the polluters and not society at large. This would create an incentive for producers to place environmentally friendly products on the market.

Second, whatever the importance or quality of preventive or redistributive measures, the risk of environmental degradation remains. Indeed, setting emission thresholds or establishing funds necessarily leads to degradation of water, soil, and air. One should therefore consider whether civil liability would be fertile ground for adding a new dimension to the principle: a curative function. If civil liability guarantees a form of redistribution *ex post*, it differs from the classical distributive function in that it is more individual than collective in character.

7.3.2 *Recognition within EU law*

The polluter-pays principle has gradually commanded recognition as one of the pillars of the EU's environment policy. It has successively been invoked to address distortion of competition, to prevent chronic pollution, and, finally, to justify the adoption of fiscal measures or strict liability regimes. The procedures for applying the principle were specified in Recommendation 75/436/Euratom, ECSC, EEC of 3 March 1975 regarding cost allocation and action by public authorities on environmental matters, which broadly takes up the rules elaborated by the OECD. Subsequent to the Recommendation of 3 March 1975, the polluter-pays principle recurred in all subsequent Environmental Action Programmes and in the EC Guidelines relating to State aids for the protection of the environment.[262]

Despite the recognition of the principle under Article 192(2), the TFEU in making public funds available for environmental measures departs from the logic of the internalization of the externalities. First, the Cohesion Fund established under Article 177 TFEU co-finances environmental projects in the poorer Member States. Second, Article 192(5) TFEU provides for national public intervention in the form of

[262] Information from the EC Commission: EC Guidelines 94/C 72/03 on State Aid for Environmental Protection, replaced by EC Guidelines 2001/C 37/03 on State Aid for Environmental Protection.

disproportionate.

The polluter-pays principle also appeared in secondary EC legislation throughout the 1970s and was expressly taken up in several waste management directives.[263] In condemning a prohibition on the export of waste oils outside France as incompatible with Article 34 TFEU, the Court of Justice rejected the economic argument invoked by the French authorities that an export ban was needed to avoid bankrupting recycling firms, since under the EC Waste Oils Directive Member States 'may, without placing restrictions on exports, grant to such undertakings "indemnities" financed in accordance with the principle of "polluter-pays".'[264] However, EU directives dealing with atmospheric pollution, water protection, nature protection, and noise do not expressly refer to the principle. Relatedly, the Habitat Directive recognizes that 'the polluter-pays principle can have only limited application in the special case of nature conservation'.[265]

We must now consider whether this principle is really capable of bringing about changes to two redistributive legal instruments: taxation (instrument of prevention *ex ante*) and civil liability (instrument of remediation *ex post*).

7.3.3 Ex ante *application of the principle: environmental charges*

7.3.3.1 Internalizing environmental costs

The main function of the polluter-pays principle is to internalize the social costs borne by public authorities for pollution prevention and control.[266] At this stage, the principle serves as an economic rule according to which a portion of the profits accruing to polluters as the result of their activities must be returned to the public authorities responsible for inspecting, monitoring, and controlling the pollution these activities produce. It is generally recognized that the polluter-pays principle implies setting up a system of charges by which polluters help to finance public policy to protect the environment.[267]

In obliging Member States to implement this environmental principle when carrying out pricing policy, several EU directives embrace this redistributive function in line with

[263] Several waste management directives recall that the principle must be respected when setting out economic instruments (Directive 75/439/EEC on the disposal of waste oils [1975] OJ L194/23, Directive 94/62/EC on packaging and packaging waste [1994] OJ L365/10).

[264] Case C-172/82 *Inter-Huiles* [1983] ECR I-555, para. 18.

[265] Eleventh recital of the preamble to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/1.

[266] H. C. Bugge, *Forurensnings-Ansvaret* (Oslo: Aschehoug, 1999); N. de Sadeleer, *Environmental Principles* (Oxford: OUP, 2002) 35; and 'The Polluter-Pays Principle in EU Law. Bold Case Law and Poor Harmonisation', *Pro Natura. Festskrift til H.-C. Bugge* (Oslo: Universitetsforlaget, 2012) 405–19. Directive 2011/76/EU amending the directive on the charging of heavy goods vehicles for the use of certain infrastructures (the Eurovignette Directive [2011] OJ L269/1) links the polluter-pays principle to the 'user pays' principle. See recital 3.

[267] According to the terms of the 1975 Council Recommendation regarding cost allocation and action by public authorities on environmental matters, this is in fact the most appropriate instrument for carrying out the polluter-pays principle. The Commission Communication of 26 March 1997 on taxes, fees and environmental charges in the Single Market considers that 'such levies could constitute an adequate means for implementing the polluter-pays principle, by including environmental costs in the price of goods and services.' See COM(97) 9 final.

given concrete expression to the principle by requiring that the cost of waste disposal include all operation costs, including financial guarantees and restoration of the site once it ceases to be used for disposal.[268] By the same token, Article 9 of Directive 2000/60/EC establishing a framework for Community action in the field of water policy has also given concrete expression to the principle, by requiring that 'Member States shall take account of the principle of recovery of the costs of water services, including environmental and resource costs'. In addition, Member States were required to ensure by 2010 that water-pricing policies provide adequate incentives for the efficient use of water resources, thereby contributing to the environmental objectives of the directive.

As regards taxation, the polluter-pays principle throws up more questions than it answers.[269]

7.3.3.2 Who should pay pollution charges?

Identifying the person who must pay pollution charges has given rise to a great deal of controversy, since generally more than one identifiable individual contributes to pollution. Can the authority charge each person who has contributed to the harm, no matter how small their share, on the ground of equity? Or, for the sake of efficiency, is it preferable to charge the person who is best placed to pay? With respect to the scope of Article 10 of Directive 1999/31/EC on the landfill of waste, the Court held in *Pontina Ambiente* that all the costs of operating a landfill must be borne by the holders of the waste deposited in the site for disposal.[270] Although nothing precludes a Member State from introducing a levy on waste to be paid by the landfill operator, it can do so only on condition that the fiscal provision in question is accompanied by measures to ensure that the levy is actually reimbursed by the holders of the waste 'within a short time so as not to impose excessive operating costs on the operator on account of late payment' by those holders, thereby undermining the 'polluter pays' principle.[271] The fact that Article 10 does not impose on the Member States any specific method of financing the cost of a landfill does not deprive that obligation of being unconditional and sufficiently precise to have direct effect.[272]

7.3.3.3 How much must the polluter be charged?

By the same token, determining the basis of a charge has also sparked controversy. According to the principle of proportionality, polluters must pay in proportion to the damage they cause. As a result, activities that are the most harmful to the environment should pay the highest charges. *Standley* is a textbook example of the fact that the polluter-pays principle is the expression of a general principle of EU law: the principle of proportionality. With regard to charges related to the protection of waters against pollution caused by nitrates from agricultural sources, that were exclusively paid by farmers, the Court was asked to rule on whether the Nitrates Directive infringes the

[268] Case C-172/08 *Pontina Ambiente* [2010] ECR I-1175, para. 36; Case C-97/11 *Amia SpA* [2012] OJ C200/2.

[269] De Sadeleer (n 266), 44–9.

[270] Case C-172/08 *Pontina Ambiente* [2010] ECR I-1175, para. 37.

[271] *Pontina Ambiente* (n 270), para. 38.

[272] *Amia SpA* (n 268), paras 35 and 37.

were being singled out to bear the cost of reducing the concentration of nitrates in waters to below the threshold of 50 mg/l even though agriculture is acknowledged to be only one source of nitrates, while no financial demands were being made on other sources. Referring to the polluter-pays principle, the Court of Justice judged that:

> the (Nitrates) Directive does not mean that farmers must take on burdens for the elimination of pollution to which they have not contributed; ... the Member States are to take account of the other sources of pollution when implementing the Directive and, having regard to the circumstances, are not to impose on farmers costs of eliminating pollution that are unnecessary. Viewed in that light, the polluter-pays principle reflects the principle of proportionality ...[273]

According to this case law, Member States cannot impose on farmers costs of eliminating pollution that are 'unnecessary': they must also take into account other sources of pollution.[274] Following that reasoning, the costs charged to some categories of economic agents arising from the designation of a protected area should not be superior to the costs of the pollution generated by those agents.[275] It follows that where the polluter is an industrial plant located upstream, it would run contrary to the principle to charge exclusively the farmers downstream. This demonstrates clearly how a principle laid down in the TFEU may influence the interpretation of an act of secondary legislation and consequently determine national administrative practices.

However, applying proportionality to charges in a rigorous manner may prove a relatively complex operation owing to the multiple parameters which must be taken into account—among them, the nature of the nuisance, the hazards it presents, the means available to remedy its harmful effects, and the cost of meeting an environmental quality objective, including the administrative costs directly linked to carrying out anti-pollution measures. Put simply, flexibility is needed in applying the principle. In this respect, *Futura Immobiliare* is illustrative of the ways in which the tax basis has to be calculated in accordance with the principle. The Court was asked to decide whether waste management charges could be calculated on the basis of the economic activity or the surface area of the undertaking, instead of the amount of waste produced and collected. The Court held that the principle did not preclude Member States from varying the contribution of each category of taxpayers 'in accordance with their respective capacities to produce urban waste'.[276] As a result, some categories of undertakings—such as hotels—can be treated less favourably than households provided that this distinction 'is based on objective criteria ... such as their waste-production capacity or the nature of the waste produced'.[277] As a result, national authorities are endowed with 'broad discretion' when determining the manner in which an environmental charge must be calculated.[278]

[273] Case C-293/97 *Standley* [1999] ECR I-2603, paras 51–2.

[274] *Standley* (n 273), para. 52.

[275] According to the Opinion of AG Léger, the Directive had to be interpreted as requiring Member States to impose on farmers only the cost of pollution for which they were responsible, and he explicitly added 'to the exclusion of any other cost' (Opinion of 8 October 1998, Case C-293/97 *Standley* [1999] ECR I-2603, para. 98).

[276] Case C-254/08 *Futura Immobiliare*

In *Amia SpA*, the Court held that all costs incurred by the operator of a landfill site (interest on those sums for which the waste holder is liable, levies, etc) fall within the scope of Article 10 of the directive on landfills.[279]

Lastly, in applying charges which are distinctly higher than the costs they are intended to cover, national authorities may be tempted to penalize undesirable behaviour. Although these charges are incentive enough to oblige consumers to change their behaviours, they are consistent with the polluter-pays principle as well as the principle of prevention.

7.3.3.4 Allocation of charge revenues

Allocating the revenue from charges also gives rise to a number of questions. EU directives and recommendations do not indicate whether the sums collected should be set aside in a special fund for financing environmental policy or whether they should be paid into the general State budget.[280] The redistributive function generally assigned to charges argues in favour of the first option. Since a financial transfer from polluters to public authorities is intended to spare the community from having to assume environmental liability, the proceeds of charges should primarily be allocated to the tasks of prevention, control, monitoring, and clean-up carried out by public authorities. In the event that charge revenue exceeds total expenditure, Recommendation 75/432 states that 'the surplus should preferably be used by each government for its national environmental policies.' Clearly, allocating charge revenues to a dedicated fund does not conform to the principle of universality, according to which tax revenues should not be used for specific expenditure.

The question also arises whether public authorities may assign part of the charges back to the polluters themselves. Recommendation 75/432 authorizes such mechanisms under certain conditions. Strictly applied, financial intervention by Member States in support of certain private investments should not be considered contrary to the polluter-pays principle.[281] Methods for Member State financing have, moreover, been specified in several European Commission Communications. However, national authorities can intervene in as much as their measures are consistent with State aids law.

7.3.4 Ex post *application of the principle: civil liability*

7.3.4.1 Introductory remarks

More or less unnoticed, the polluter-pays principle has shifted from the public sphere to civil liability.[282] Indeed, there is an increasing tendency in international circles to ascribe a curative dimension to the polluter-pays principle.[283]

[279] *Amia SpA* (n 268), paras 35 and 37.

[280] Art. 9(2) of the amended Eurovignette Directive ([2011] OJ L269/1) requires the allocation of revenues and charges to specific sectoral investments.

[281] See the discussion in Chapter 12.

[282] As to the scope of that environmental principle, see de Sadeleer (n 266), 21–60; and 'Polluter Pays, Precautionary Principles and Liability' in G. Betlem and E. Brans (eds), *Environmental Liability in the EU* (Cambridge: Cameron & May, 2006) 89–102.

[283] In a 1991 Recommendation on the Use of Economic Instruments in Environment Policy, the OECD

the polluter-pays principle. If this principle were not to be applied to cover the costs of restoration of environmental damage, either the environment would remain unrestored or the State, and ultimately the taxpayer, will have to pay for it. Therefore, a first objective is making the polluter liable for the damage he has caused. If polluters need to pay for damage caused, they will cut back pollution up to the point where the marginal cost of abatement exceeds the compensation avoided. Thus, environmental liability results in prevention of damage and in internalization of environmental costs. Nonetheless, a number of questions remain unanswered. Who is the liable party (the polluter, the producer, the waste holder, the consumer, etc)? Which damage or type of pollution should he compensate? To what extent should he pay? A comprehensive analysis of three cases is provided—*Agusta*, *van de Walle*, and *Mesquer*—in which the Court of Justice was asked to answer some of those questions.

7.3.4.2 Environmental Liability Directive

This line of reasoning, according to which environmental liability results in the principle of internalization of environmental costs, found echo in Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage. Pursuant to Article 1, the directive is underpinned by the polluter-pays principle;[285] however, it should be noted that the directive does not establish a genuine liability regime given that, on the one hand, compensation for private parties is expressly excluded[286] and, on the other, the directive straddles the divide between civil and administrative law.[287] In *Agusta*, the Court of Justice held that a strict liability regime does not in itself run contrary to the polluter-pays principle which applies to Directive 2004/35/EC.[288] Nonetheless, reasoning by analogy with *Standley*, the Court expressed the view that in spite of the strict liability regime, operators subject to the liability regime are not required to bear the costs of remedial action 'where they can prove that the environmental damage was caused by a third party and occurred despite the fact that appropriate safety measures were in place, since it is not a consequence of the "polluter pays" principle that operators must take on the burden of remedying

177 (final), OECD, 1991). Similarly, the preamble to the 1993 Lugano Convention on civil liability for damage resulting from activities dangerous to the environment (not in force) (Lugano, 21 June 1993) 'has regard to the desirability of providing for strict liability in this field, taking into account the "polluter-pays" principle'.

[284] COM(2000) 66 final, 9 February 2000.

[285] In addition, the preamble to that directive stresses that 'the prevention and remedying of environmental damage should be implemented through the furtherance of the "polluter-pays" principle' and that, according to this principle, the 'operator should bear the cost of the necessary preventive or remedial measures' (2nd and 18th recitals of the preamble).

[286] Arts. 2(1) and 3.

[287] N. de Sadeleer, 'La directive 2004/35/CE relative à la responsabilité environnementale: avancée ou recul pour le droit de l'environnement des Etats membres?' in B. Dubuisson and G. Viney (eds), *Les responsabilités environnementales* (Brussels/Paris: Bruylant/LGDJ, 2005) 732.

[288] Case C-378/08 *Agusta* [2010] ECR I-01919, para. 70. See S. Casotta and C. Verdure, 'Recent Developments Regarding the EU Environmental Liability for Enterprises: Lessons Learned from Italy's Implementation of the "Raffinerie Mediterranee" Cases' (2012) *EEELR* 156–64.

regime does not preclude the demonstration of the link of causation.

7.3.4.3 Waste Framework Directive

In both *van de Walle* and *Mesquer*, the Court of Justice applied the principle to waste liability cases relating to the clean-up of sites polluted by hydrocarbons. It should be noted that in the case of a contaminated site, it is not always easy to identify who has actually caused the pollution—the person in charge of the installation, the manufacturer of the defective plant, the owner of the property, and the licence-holder or his representatives may be liable for pollution. This question becomes even more complex in the case of diffuse pollution, where multiple causes produce single effects and single causes produce multiple effects.

The Court has been asked to rule on whether the producers of oil products from which the waste emanated might be held liable for the costs of cleaning up environmental damage resulting from accidental oil spills. In particular, the Court was asked, with respect to the financial costs of the waste disposal, to determine the scope of Article 15 of the former Waste Framework Directive 75/442/EC (WFD) that provided that, in accordance with the 'polluter pays' principle, 'the holder' of the waste (first indent) or 'the previous holders or the producer of the product from which the waste came' (second indent) must bear the costs of disposing of the waste. It should be pointed out that under the former WFD the concept of 'holder' (first indent) embraced both 'the producer of waste' and 'the natural or legal person who is in possession of it'.

These two judgments enhance the enforceability of the principle where it has been fleshed out in specific EU obligations.

In *van de Walle*, the Court was asked to decide whether the WFD's obligations were applicable to a petroleum company which produces hydrocarbons and sells them to a manager operating one of its service stations under a contract of independent management excluding any relationship of subordination to the company.[290] In order to answer the question whether Texaco could be deemed to be the holder of the waste, the Court of Justice emphasized the need to interpret Article 15 of the directive in the light of the polluter-pays principle.

At the outset, the Court stressed that the WFD draws a dividing line between, on the one hand, 'practical recovery or disposal operations, which it makes the responsibility of any "holder of waste", whether producer or possessor' and, on the other hand, 'the financial burden of those operations, which, in accordance with the principle of polluter pays, it imposes on the persons who cause the waste, whether they are holders or former holders of the waste or even producers of the product from which the waste came.'[291]

[289] *Agusta* (n 288), para. 67.

[290] Case C-1/03 *van de Walle* [2004] ECR I-7613. See case notes by N. de Sadeleer (2008) 3 *CML Rev* 16; McIntyre (2005) 17 *JEL* 109. In reaction to this judgment, the EU lawmaker explicitly excluded land and unexcavated contaminated soil from the scope of the new Waste Framework Directive (Directive 2008/98/EC on waste [2008] OJ L312/3, Art. (2)(1)(b)).

[291] Case C-1/03 *van de Walle* [2004] ECR I-7613, para. 58.

his operations, had them in stock when they became waste and who may therefore be considered to be the person who "produced" them within the meaning of Article 1(b) of [the] Directive'.[292] Nevertheless, an oil company selling hydrocarbons to the manager of a petrol station can, under certain circumstances, be considered to be the holder of the land contaminated by hydrocarbons that accidentally leak from the station's storage tanks, even where the petrol company does not own or 'hold' them.[293] In other words, the 'polluter' should be the person who causes the waste and thereby the pollution. The Court of Justice left it to the national court to determine whether the poor condition of the service station's storage facilities and the resultant leak of hydrocarbons could be attributed to a disregard of the contractual obligations by the petroleum undertaking which supplied the service station. The channelling of liability is thus foreclosed if the producer of the products from which the waste came can prove that it has acted in accordance with its contractual obligations.

Oil spills at sea raise interesting liability issues. In *Mesquer*, in adjudicating the issue of whether French oil companies could be charged for the cleaning up of heavy fuel accidentally discarded by a tanker operated by a Maltese company, the Court of Justice ensured a correct application of the 'polluter pays' principle, which cannot be emasculated by limitation or exemption systems resulting from international agreements to which the EU is not party.[294]

What deserves attention here is that the international agreements applicable to the compensation for damage caused by the discharge of hydrocarbons are, at first glance, far more favourable to oil companies than to victims. This is because, on the one hand, they channel liability to the oil tanker owner,[295] which has the effect of paralysing any compensation claims for third parties where the owner is insolvent. On the other hand, even if this limitation of liability is countered by the intervention of a compensation fund—such as the International Oil Pollution Compensation Funds (IOPCF)—this intervention remains limited.[296] The limitation can, as such, result in neither the shipowner nor IOPCF bearing any part of the costs of waste disposal resulting from damage due to pollution by hydrocarbons at sea. This leads to the financial burden being placed on the general public, which seems to run contrary to the logic of the polluter-pays principle. In sharp contrast to these international agreements, the WFD obligation regarding waste disposal costs was not subject to any limitation.

Both Advocate General Kokott and the Court of Justice reached the conclusion that, even if it was in principle the shipowner who held the waste,[297] the producer of heavy fuel oil as well as the seller and the oil tanker charterer could be held liable for waste disposal costs, on the ground that they could be deemed to have contributed in some

[292] *Van de Walle* (n 291), para. 59. [293] *Van de Walle* (n 291), para. 60.
[294] Case C-188/07 *Mesquer* [2009] ECR I-4501. See case note by N. de Sadeleer (2009) 21:2 *JEL* 299.
[295] International Convention on Civil Liability for Oil Pollution Damage (Brussels, 29 November 1969), Art. III. In channelling the liability exclusively to the owner of the oil tanker, the Convention insulates the charterer from civil liability.
[296] International Convention on the Establishment of an International Oil Pollution Compensation Fund (1992).
[297] Case C-188/07 *Mesquer* [2009] ECR I-4501, para. 74.

spillage.[298] Indeed, that financial obligation is thus imposed on the 'previous holders' or the 'producer of the product from which the waste came' 'because of their contribution to the creation of the waste and, in certain cases, to the consequent risk of pollution'.[299] As a result, the liability for damage caused by waste disposal cannot only be channelled to the sole owner of the vessel, who generally speaking is more often insolvent than the companies chartering said ship. On the contrary, it will be possible in accordance with the polluter-pays principle to regard the seller-charterer as a previous holder of the waste.[300] That said, the producer may only be made liable, in accordance with the 'polluter pays' principle, insofar as the latter has 'contributed by his conduct to the risk that the pollution caused by the shipwreck will occur'.[301]

In shifting the channelling of the liability, the Court of Justice was nonetheless surrounded by opposing norms with, on the one hand, international agreements limiting the liability of oil companies and, on the other hand, Article 15 of the former WFD, which does not provide for any limitation on the liability of the waste holder.[302] The Court considered that Article 15 WFD did not prohibit Member States, in accordance with the two international agreements, from laying down limitations and exemptions of liability in favour of the shipowner or the charterer.[303] There was therefore no incompatibility between EU law and international law.

However, taking into account that the cost of disposal of the waste may not be borne by IOPCF, or cannot be borne because the ceiling for compensation for the accident has been reached, or 'that, in accordance with the limitations and/or exemptions of liability laid down, the national law of a Member State, . . . , prevents that cost from being borne by the ship-owner and/or the charterer' the Court reached the conclusion that such a national law will have to be interpreted in such a way in order to ensure that the full costs are borne by the producer.[304]

Practically speaking, if the damage caused by the oil spill exceeds the ceiling for compensation provided under the international regime, the Member State is called on to give precedence to the EU waste liability scheme interpreted in the light of the polluter-pays principle to ensure that the costs are borne by the producer of the oil from which the waste emanated. As a result, Member States cannot limit the scope of

[298] Opinion AG Kokott in Case C-188/07 *Mesquer* [2009] ECR I-4501, para. 147; Case C-188/07, para. 78.
[299] *Mesquer* (n 298), para. 77. [300] *Mesquer* (n 298), para. 78.
[301] *Mesquer* (n 298), para. 82. The criterion of 'contribution to the risk that the pollution might occur' is somewhat lower than the threshold to be met in *van de Walle*, the direct causal link or the negligent behaviour of the operator.
[302] However, by not concluding these international instruments, the EC was not bound by the obligations therein, whereas the majority of Member States, including France, were parties to those instruments. See *Mesquer* (n 298), para. 85.
[303] *Mesquer* (n 298), para. 81. The fact that these limitations and exemptions stemming from international law would have the effect of passing on to the general public a substantial part of the environmental liability was, according to AG Kokott, in accordance with the 'polluter pays' principle (Opinion, para. 142).
[304] *Mesquer* (n 298), para. 82. In so doing, the Court of Justice departed somewhat abruptly from the Opinion of AG Kokott in considering that a correct transposition of Art. 15 of the directive implied that national law must ensure that further costs 'be borne by the producer of the product from which the waste thus spread came'.

principle, even though they will have to disregard their international obligations. In short, EU waste law and hence the polluter-pays principle takes precedence over international law. Obviously, the outcome would have been different if the EU had been a party to that international convention.

As a result of *van de Walle* and *Mesquer*, the willingness of the Court to channel liability to the oil producers, provided that their conduct has given rise to the waste, has been somewhat softened under the new WFD of 2008.[305] In any event, Member States may still under the new regime channel liability along the production chain of the waste. The case law must be approved for the following reasons.

First, for reasons of economic efficiency and administrative simplicity, the law need not necessarily adhere to reality, and it is sometimes preferable to apply the qualification of polluter or waste holder to a single person rather than a number of people.[306] In particular, Recommendation 75/436 regarding cost allocation and action by public authorities on environmental matters provides that the costs of pollution could be charged 'at the point at which the number of economic operators is least and control is easiest'. Consequently, the polluter may be the agent who plays a determining role in producing the pollution rather than the person actually causing the pollution (eg the producer of pesticides rather than the farm worker).[307]

Second, in shifting the channelling of the liability towards the most solvent party—the oil-producing company or the seller-charterer—the Court ensures that the clean-up of the oil spillage will take place.

Third, given that the liability is not channelled towards the least solvent party—the holder of the waste—all the parties involved in the chain of operation are enticed, in accordance with the principle of prevention, to monitor closely their respective activities.

7.4 The principle of prevention

Curative measures may remediate environmental damage, but they come too late to avert it. In contrast, preventive measures do not depend on the appearance of ecological problems; they anticipate damage or, where it has already occurred, try to ensure that it does not spread. In any event, common sense dictates timely prevention of environmental damage to the greatest extent possible, particularly when it is likely to be irreversible or too insidious or diffuse to be effectively dealt with through civil

[305] Under Art. 14(1) of the new WFD 2008/98/EC, 'in accordance with the polluter-pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders' and no longer by 'the previous holders or the producer of the product from which the waste came'. However, pursuant to the second para. of that article, 'Member States may decide that the costs of waste management are to be borne partly or wholly by the producer of the product from which the waste came and that the distributors of such product may share these costs'.

[306] De Sadeleer (n 266), 41–2.

[307] The fact that the hydrocarbons were accidentally spilled does not exclude the obligation to decontaminate the land in the light of the polluter-pays principle. Indeed, the OECD Recommendation of 5 July 1989 on the Application of the Polluter-Pays Principle to Accidental Pollution confirms the intention to apply the principle to accidental as well as chronic pollution and thereby to require potential polluters to contribute financially to preventive measures adopted by public authorities.

a bedrock principle of international environmental law,[309] it comes as no surprise that it has long been the Cinderella of EU environmental law. Furthermore, prevention is a flagship principle of other EU policies, such as workers' safety, that have close links to environmental policy.[310]

However, its outline is difficult to discern; it gives rise to so many questions that any attempt at interpretation calls for constant clarification. We may, for example, ask whether a preventive measure presupposes complete knowledge of the risk to be reduced, if all forms of damage must be foreseen, if intervention should take place at the level of the source of the damage or of its effects, and whether it is preferable to monitor the progress of damage or to intervene when it occurs.

Nonetheless, the proliferation of preventive mechanisms found in EU secondary law—environmental impact assessments,[311] notification procedures,[312] adequate control of risks,[313] exchange of data on the impact of harmful activities,[314] etc—gives substance to this principle. In effect, these regulatory devices play a crucial role in preventing environmental harm and therefore give substance to the principle. With respect to waste management, prevention prevails over other operations such as re-use, recycling, recovery, and disposal.[315] Likewise, a procedure for authorization to be obtained prior to setting up a large retail establishment is appropriate for achieving the objectives relating to town and country planning and environmental protection pursued by regional authorities. In truth, the damage that would be caused if the authorization scheme were not to be applied could not be repaired after the project is complete. Against this background, the Court of Justice stressed the soundness of the preventive approach: 'adoption of measures a posteriori, if the setting up of a retail establishment already built should prove to have a negative impact on environmental

[308] EEA, *The European Environment. State and Outlook* (Copenhagen: EEA, 2005) 19.

[309] *Arbitration Regarding the Iron Rhine Railway (Belgium v Netherlands)*, Arbitral Award of 24 May 2005, para. 58. In *Pulp Mills on the River Uruguay*, the ICJ held that environmental impact assessment (EIA) 'has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an EIA where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context'. Eg *Pulp Mills on the River Uruguay (Argentina v Uruguay)* [2010] ICJ Rep. 7, para. 204.

[310] Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work [1989] OJ L183/1, Arts 1(2) and 3(d).

[311] European Parliament and Council Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment [2001] OJ L197/30; Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/1, Art. 6(3).

[312] European Parliament and Council Regulation (EC) No. 1013/2006 on shipments of waste [2006] OJ L190/1; European Parliament and Council Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals [2008] OJ L204/1.

[313] REACH Regulation, Art. 57(1).

[314] Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment [2001] OJ L197/30, Art. 7.

[315] Directive 2008/98/EC on waste [1998] OJ L312/3, Art. 4(1). In sharp contrast, as regards packaging waste, the Court took the view that re-use should be placed on an equal footing with recycling. See Case C-309/02 *Radlberger and Spitz* [2004] ECR I-11763, para. 33; and Case C-463/01 *Commission v Germany* [2004] ECR I-11705, para. 40.

Furthermore, pursuant to the case law of the ECtHR, Member States have positive obligations by virtue of Article 8 ECHR to take appropriate measures to avoid serious interference with the right to private life.[317] In addition, the ECtHR took the view that Article 2 ECHR entails 'a primary duty on the State to put in place a legislative and administrative framework designed to provide effective deterrence against threats to the right to life'.[318]

Finally, the companion principle of standstill may go hand in hand with prevention.

7.5 The principle that environmental damage should, as a matter of priority, be remedied at source

In refining the preventive principle, the principle of rectification at source is grounded in common sense. Damage should as a priority be rectified by taking action at source rather than by using end-of-the-pipe technologies. There is no shortage of regulatory devices fleshing out this principle. The fact that the best environmental policy consists of preventing the creation of pollution or nuisances at source, rather than subsequently trying to counteract its effects explains why so many projects are subject to authorization and environmental impact assessments. As regards waste management, this principle entails that 'it is for each region, municipality or other local authority to take appropriate steps to ensure that its own waste is collected, treated and disposed of and that that waste must therefore be disposed of as close as possible to the place where it is produced, in order to limit as far as possible the transportation of waste'.[319] Even if one of the regions of a Member State lacks the infrastructure needed to meet its waste disposal needs, such 'serious deficiencies at regional level are likely to compromise the national network of waste disposal installations'.[320] Moreover, under Article 16(1)(2) of Directive 2008/98, Member States are to take appropriate measures to establish an 'integrated and adequate network of waste disposal installations', in order to enable the Union as a whole to become self-sufficient in waste disposal and recovery of waste and to enable 'the Member States to move towards that aim individually'.[321] With the aim of encouraging rationalization of waste management, Member States must establish waste management plans. Accordingly, pursuant to the principle of proximity enshrined in Article 16(3) of Directive 2008/98, the network of installations must enable waste to be disposed of in the nearest appropriate installation.[322] These plans should include location criteria governing the location of waste disposal sites. Some of

[316] Case C-400/08 *Commission v Spain* [2011] ECR I-1915, para. 92.
[317] See the discussion in Chapter 2, Section 4.3.
[318] *Oneryildiz v Turkey*, 18 June 2002, para. 90.
[319] See Case C-155/91 *Commission v Council* [1993] ECR I-939, para. 13; and Case C-297/08 *Commission v Italy* [2010] ECR I-1749, para. 67.
[320] Case C-297/08 *Commission v Italy* [2010] ECR I-1749, para. 68.
[321] Case C-494/01 *Commission v Ireland* [2005] ECR I-3331, para. 154; and Case C-286/06 *Commission v Spain* [2008] ECR I-8025, para. 57.
[322] Case C-480/06 *Commission v Germany* [2009] ECR I-04747, para. 37.

areas.[323] Lastly, the new Directive 2010/75/EU on industrial emissions is meant to give 'priority to intervention at source, ensuring prudent management of natural resources'.[324]

7.6 The precautionary principle

7.6.1 *Genesis*

Known at the start of the 1990s by only a few specialists of environmental law, the precautionary principle has experienced a meteoric rise within the space of a decade and, as a result, has been able to establish itself as a new general principle of international law. It has not only come to occupy an uncontested position in international but also in EU law as well as in several European countries, to the point where it overshadows the principle of prevention. Furthermore, the precautionary principle has been applied increasingly often in a wide array of areas ranging from classical environmental issues (nature, water, air,...) to wider areas such as food safety (mad cow disease, the spread of GMO,...) as well as health issues (the French HIV blood-contamination scandal, health claims linked to phthalates in PVC toys and endocrine disruptors, among other issues).[325]

This introductory section will not reopen a full discussion on the meaning of this principle, other than to recall its function as the expression of a philosophy of anticipated action, not requiring that the entire corpus of scientific proof be collated in order for a public authority to be able to adopt a preventive measure. In so doing, the principle lowers the hurdles faced by regulatory agencies tackling risks permeated with uncertainty. While there are multiple definitions of this principle in international and national law, every enunciation of the principle contains the elements of an anticipatory regulatory approach in the face of uncertainty. In a nutshell, precaution epitomizes a paradigmatic shift. Whereas, under a preventive approach, the decision-maker intervenes provided that the threats to the environment are tangible, pursuant to the precautionary principle authorities are prepared to tackle risks for which there is no definitive proof that there is a link of causation between the suspected activity and the harm or whether the suspected damage will materialize. In such a situation, decision-makers cannot determine the threshold levels to which preventive action appears to be subject in order to avoid or to minimize the occurrence of the risk. In other words, precaution means that the absence of scientific certainty—or, conversely, the scientific uncertainty—as to the existence or the extent of a risk should henceforth no longer delay the adoption of preventative measures to protect the environment. That said,

[323] Joined Cases C-53/02 & C-217/02 *Commune de Braine-le-Château and others* [2004] ECR I-3251, para. 34; and *Commission v Spain* (n 321), paras 49 and 50. It must be kept in mind that mandatory minimum distance requirements, such as those between roadside service stations, are likely to restrict freedom of establishment. See Case C-384/08 *Attanasio Group* [2010] ECR I-2025.
[324] Directive 2010/75/EU on industrial emissions [2010] OJ L134/17, 2nd recital.
[325] The precautionary principle is seen by the Court of Justice as constituting 'an integral part of the decision-making processes leading the adoption of any measure for the protection of human health'. *Monsanto Agricultora Italia* (n 162), para. 133.

uncertainty, the distinction between the two principles is more an issue of a sliding scale rather than of substance.[326]

The precautionary principle has quickly developed into one of the foundations of the high level of environmental protection in the EU and as an obligation laid down by the TFEU.[327] As a result, precaution has slowly but inexorably been permeating numerous crevices of EU law, either through the declaration of public policy objectives (soft law), directives and regulations (hard law), or judicial interpretation (case law). From an academic perspective, much ink has been spilled over its status at the EU level.[328]

Praised by some, disparaged by others, the principle is not unfamiliar with controversy. Moreover, discussions about its status and functions have greatly intensified with respect to World Trade Organization (WTO) trade issues. Indeed, much of the recent debate has focused on the question whether the principle fosters protectionism by justifying arbitrary standards that developing countries cannot meet and, as a result, jeopardizes innovation.

It is submitted that the significance of the principle lies in its challenge to traditional legal systems, many of which are permeated by the need for certainty. It should be noted that an operator's civil liability can be incurred provided that the victim is able to shed light on the link of causation between the operator's behaviour and the ensuing damage. A WTO member is able to enact a food safety measure provided that its regulatory choice is based on clear scientific evidence resulting from a risk assessment.[329] This presupposes continuous recourse to scientific expertise, with experts

[326] Eg bans on asbestos or tobacco smoking in the 1950s and 1960s would have involved both precaution and prevention. Nowadays these risks are well known. Henceforth, such bans are justified by the principle of prevention.

[327] Case C-127/02 *Waddenzee* [2004] ECR I-7405, para. 44.

[328] I. Cheyne, 'Taming the Precautionary Principle in EC Law: Lessons from Waste and GMO Regulation' (2007) 4:6 *JEEPL* 468–84; G. Corcelle, 'La perspective communautaire du principe de précaution' (2001) 450 *RMC* 447; A. Alemanno, 'Le principe de précaution en droit communautaire' (2001) *RDUE* 917–40; W. T. Douma, *The Precautionary Principle. Its Application in International, European and Dutch Law*, Phd thesis, Groeningen (2002); J. Scott and E. Vos, 'The Juridification of Uncertainty: Observations on the Ambivalence of the Precautionary Principle in the EU and the WTO' in Ch. Joerges and R. Dehousse (eds), *Good Governance in Europe's Integrated Market* (Oxford: OUP, 2002) 253–86; J. Scott, 'The Precautionary Principle before the European Courts' in Macrory (n 180), 51–72; A. Szajkowska, 'The Impact of the Definition of the Precautionary Principle in EU Food Law' (2010) 47 *CML Rev* 173–96; Zander (n 195), 76–151; M. Weimer, 'Applying Precaution in EU Authorisation of Genetically Modified Products—Challenges and Suggestions for Reform' (2010) 16:5 *ELJ* 624–57. See also N. de Sadeleer in the following: 'Le statut juridique du principe de précaution en droit communautaire: du slogan à la règle' (2001) 1 *CDE* 79–120; 'The Precautionary Principle in EC Health and Environmental Law' (2006) 12 *ELJ* 139–72; *Implementing the Precautionary Principle: Approaches from the Nordic Countries, the EU and USA* (London: Earthscan, 2007); 'The Precautionary Principle Applied to Food Safety' (2009) 1 *EJCL* 147–70; 'The Precautionary Principle as a Device for Greater Environmental Protection: Lessons from EC Courts' (2008) 18:1 *RECIEL* 3–10; and 'The Precautionary Principle in EU Law' (2010) 5 *Aansprakelijkheid Verzekering en Schade* 173–84.

[329] See Art. 5(1)(2) Sanitary and Phytosanitary (SPS) Agreement. *European Communities—DS 26 Measures concerning meat and meat products (hormones)*, Appellate Body, Doc. WT/DS 26 & 48/AB/R (16 January 1998), para. 186; *Australia—DS 21 Measures concerning the importation of salmonids*, Appellate Body, Doc. WT/DS18/AB/R (20 October 1998), para. 129. Attention should be drawn to the fact in interpreting Art. 5(7) of the SPS Agreement, the WTO Appellate Body took the view in *Japan—Measures affecting the importation of apples* that the application of the safeguard clause enshrined in that provision, which was previously deemed to reflect the precautionary principle, 'is triggered not by the existence of

first glance precaution provides for the possibility of acting while uncertainties have not yet been cleared. This requires a few words of explanation.

7.6.2 *Uncertainty as a triggering factor*

The precautionary principle came to centre stage in the field of environment policy in response to the limitations of science in assessing complex and uncertain ecological risks. Indeed, environmental risks and, in particular, global risks confront assessors with serious difficulties: uncertainty is a persistent feature both of understanding the chain of causation[330] as well as predicting the outcomes. Scientific uncertainty exists whenever there is no adequate theoretical or empirical basis for assigning probabilities to the occurrence or the extent of a risk. As far as environmental risks are concerned, there is indeed a strong deficit in predictive capability. In fact, the distance in time and space between sources and damages, the cumulative and synergistic effects, the unpredictable reactions of some ecosystems (potential resilience), and the large scale of impacts compound the methodological difficulties in assessing these risks.[331]

Clearly, uncertainty is not a clear-cut concept. In fact, a whole range of different types of uncertainty exist, ranging from lack of full evidence, lack of causal mechanisms, incorrect assumptions, extrapolation uncertainty, inconclusiveness, indeterminacy, and ambiguity, all the way to complete ignorance.[332] The following examples are illustrative of the ways in which uncertainty pervades the risk assessment process:

- insufficiency: for instance, the various scientific disciplines involved in assessing the risk are not sufficiently developed to explain the cause-and-effect relationship;[333]
- inconclusiveness: the realities of science dictate that scientists, whatever the quality of their investigations, will never be able to eliminate some uncertainties;[334] for instance, there may be too many unpredictable variables to enable the identification of the relative influences of each factor;

importation of apples, Appellate Body, Doc. WT/DS245/AB/R, para. 184). In contrast, in situations in which the data available have been sufficient to allow for diverging scientific assessments, Art. 5(7) SPS has not been considered to apply. See Zander (n 195), 93; E. Vecchione, 'Is It Possible to Provide Evidence of Insufficient Evidence? The Precautionary Principle at the WTO' (2012) *Chicago J Intl L* 153–78. As a result, under the SPS Agreement, a safeguard measure cannot be triggered by uncertainty but exclusively by insufficient results.

[330] Eg the French food safety agency (AFSSA) claimed that there exist more than 40 possible causes that might explain the observed trends of honeybee decline. See AFSSA, *Weakening, Collapse and Mortality of Bee Colonies* (2008).

[331] J. Kasperson, 'Introduction: Global Environmental Risk and Society' in J. Kasperson and R. Kasperson (eds), *Global Environmental Risk* (London: Earthscan, 2001) 4.

[332] T. Christoforou, 'The Regulation of GMOs in the EU: The Interplay of Science, Law and Politics' (2004) 41 *CML Rev* 703.

[333] Typical in this respect is recital 32 of Regulation (EC) No. 1829/2003 on GM food and feed recognizing that, in some cases, scientific risk assessments cannot provide all information on which a risk management decision should be based ([2003] OJ L268/1). In *Dupont de Nemours*, the General Court took into consideration the 'gaps in basic knowledge' of the impacts of endocrine disruptive substances. These gaps 'prevented international experts from being able to recommend suitable standard tests for regulatory purposes'. Case T-31/07 *Dupont de Nemours* [2013] OJ C156, para. 170.

[334] A quantitative risk assessment exercise performed by 11 different teams in the EC came up with 11

- imprecision: could be caused by the fact that the data used in the analysis of risks are not available or are out of date, or that assessors face information gaps, measurement errors, contradictions, indeterminacy, ambiguity, etc.

Table 1.4 indicates the ways in which state of knowledge is likely to underpin the rationale of preventive and precautionary regulatory measures.

7.6.3 *Risk analysis*

At the outset, it should be stressed that the principle is located within the broader context of the principle of risk analysis, which comprises a two-step process: risk assessment and risk management.[335] The point here is not to delve into the highly complex world of risk analysis; it is merely to emphasize some of the key issues arising in the discussion of the implementation of a precautionary measure. The first two stages are essential as they aim, on the one hand, to ensure as rigorous as possible a scientific basis for managing the risk (risk assessment) and, on the other hand, to recognize a margin of autonomy for the body authorized *in fine* to make a decision on the risk (risk management).[336] The distinction between the phases of assessment and

Table 1.4 Level of knowledge and precautionary approach

	Situation	State of knowledge	Rationale of regulatory measures
Risk	Activities that are known to impair natural habitats or ecosystems	Risk assessments highlight the level of impact and determine the probability of occurrence of the risk	**Prevention:** measures aiming at reducing known hazards
Uncertainty	Antibiotic growth promoters or endocrine disruptors	Given insufficient, inconclusive, or imprecise information, it is impossible to assess the impact and to determine the probability	**Precaution:** measures aiming at reducing plausible hazards
Ignorance	Discovery in 1974 of the depletion of the ozone layer caused by an apparently harmless class of chemicals, CFCs	'Unknown' impact and 'unknown' probability	**Precaution:** measures taken to anticipate the occurrence of 'surprises'

on Major Hazard Analysis (Ispra, European Commission Joint Research Center, 1991). By the same token, different models for assessing carcinogenicity can result in cancer predictions that differ by a factor of 100 or more when extrapolated to low doses. Eg M. Shapiro, 'Toxic Substances Policy' in O. Portney (ed.), *Public Policies for Environmental Protection* (Washington DC, Resources for the Futures, 1990) 218. Given 'the uncertainty inherent in assessing the public health risks posed by the use of food additives', the Court of Justice acknowledges the possibility of conducting legitimately different risk assessments yielding different scientific evidence. See Case C-3/00 *Denmark v Commission* [2003] ECR I-2643, para. 63.

[335] Communication from the Commission on the precautionary principle of 2 February 2000 (COM(2000) 1).

[336] In this respect, Regulation (EC) No. 178/2002 establishing the general principles of food legislation

management thus meets a dual requirement: the need to base a political decision on scientific facts and the need to maintain the autonomy of politics vis-à-vis the results of scientific assessments.[337]

Therefore, a brief discussion of the concepts of risk assessment and risk management is warranted to make clear the baseline against which the precautionary principle has to be applied.[338]

Although the precautionary principle acknowledges the limits of a traditional scientific approach, it does not, however, discard genuine scientific research. Verification of the serious nature of a hypothesis should be undertaken using a specific technique known as risk assessment providing specific evidence 'which, without precluding scientific uncertainty, makes it possible reasonably to conclude on the basis of the most reliable scientific evidence available and the most recent results of international research that the implementation' of precautionary measures is necessary.[339] According to the EU Courts,[340] a scientific risk assessment requires 'the identification of the biological, chemical and physical agents liable to give rise to adverse health effects which may be present in a given food or group of foods and which call for scientific assessment in order better to understand them'.[341] In addition, risk assessment must be entrusted to experts who will provide the institutions with scientific advice which must be based on the principles of excellence, independence, and transparency.[342]

Nonetheless, as indicated previously, it may be impossible to carry out a full risk assessment because such investigations operate at the frontiers of scientific knowledge. In fact, scientists do not have an answer for everything. Their investigations do not always allow for an identification of the risks in a convincing manner. Indeed, in many cases, their assessments will demonstrate that there is a high degree of scientific and practical uncertainty. In particular, in fields marked by uncertainty they must acknowledge the limits of their knowledge or, where appropriate, their ignorance. As will be seen later, it is precisely at this stage that the precautionary principle comes into play.

[337] Opinion AG Mischo in *Commission v Denmark* (n 212), para. 92.

[338] On the relationship between the scientific process of risk assessment and a political process of risk management, see eg C. Noiville and N. de Sadeleer, 'La gestion des risques écologiques et sanitaires à l'épreuve des chiffres. Le droit entre enjeux scientifiques et politiques' (2001) 2 *RDUE* 389–449; T. Christoforou, 'Science, Law and Precaution in Dispute Resolution on Health and Environmental Protection: What Role for Scientific Experts?' in *Le commerce international des OGM* (Paris: Documentation française, 2002) 213–83; E. Fisher, 'Framing Risk Regulation: A Critical Reflection' (2013) 4:2 *EJRR* 125–32.

[339] *Monsanto Agricoltura Italia* (n 162), para. 113.

[340] The emphasis placed on risk assessment is likely to lead to closing the gap between the EU Courts' interpretation of the principle and its application by the WTO Dispute Settlement Body with respect to the SPS Agreement. See E. Stockes, 'The Role of Risk Assessment in Precautionary Intervention: A Comparison of Judicial Trends in the EC and WTO' (2007) 4:6 *JEEPL* 461.

[341] *Pfizer* (n 182), para. 156; Case T-70/99 *Alpharma v Council* [2002] ECR II-3495, para. 169; *Monsanto Agricoltura Italia* (n 162), para. 179; *Dupont de Nemours* (n 333), para. 142. See to that effect, inter alia, Art. 3(9)–(14) of Regulation (EC) No. 178/2002 of the GFL Regulation ([2002] OJ L31/1) and points 5.1.1 and 5.1.2 of and Annex III to the Communication from the Commission on the precautionary principle of 2 February 2000 (COM(2000) 1).

...making office situated within its political, social, and economic context. Accordingly, when the risk assessment procedure is completed, a *risk management* decision must be taken by politicians, taking into account both the legislative requirements and the economic, political, and normative dimensions of the problem.[343] Risk management, in contrast to risk assessment, is the public process of deciding how safe is safe. Indeed, 'societal, economic, traditional, ethical and environmental factors as well the feasibility of controls' might appear as factors legitimizing the regulation of a specific risk.[344] In addition, to refuse to run a risk is often to accept other risks. Therefore, the decision-maker may find himself confronting competing scenarios.[345]

Against this background, decision-makers can choose to err on the safe side even though the available scientific evidence does not prove full evidence of harm. In other words, a risk management measure can be decided despite the fact that the risk assessors were unable to determine the probability of the occurrence of the risk. Admittedly, precaution aims to bridge the gap between scientists working at the frontiers of scientific knowledge and decision-makers willing to act to determine when and how safe is safe enough.

That said, although unpredictable risks are rising, authorities tend to linger in the face of uncertainty and react only to crisis events: they characteristically err towards belated and costly measures.[346] Admittedly, 'paralysis by analysis' is not uncommon. This can be explained by the fact that damage to the environment is likely to be more controversial than damage to health. Whereas one usually agrees that activities endangering human health should be restricted or banned, people usually disagree whether ecosystems, ecosystemic processes, species of plants and animals, or micro-organisms deserve any kind of protection.

7.6.4 *Secondary law*

The principle has steadily expanded its dominion in the field of secondary law. It has been fleshed out in a broad range of measures ranging from notification procedures,[347] safeguard clauses[350] to bans.[351] Moreover, the uncertainty surrounding the causes and effects of GMOs and chemical substances has served to favour recognition of the principle.[352] For instance, the obligation to register monomers 'satisfies the precautionary principle' as referred to in the REACH Regulation.[353] Hence, the burden of proof as regard the safety of these substances has been shifted to their applicants.[354]

In accordance with the integration clause, the principle also applies in the area of fisheries[355] and where the institutions take measures to protect human health under the CAP.[356] This diversity of application indicates the potential of a principle, born of environmental law, which is being called upon to govern health law as well as consumer law.

However, secondary law is far from being perfect: several EU legislations refer to the principle whereas legislations on similar topics may ignore it. By way of illustration, the REACH Regulation refers to the principle[357] whereas the Classification, Labelling and Packaging of Substance and Mixtures Regulation does not mention it.

Lastly, the European Commission produced a Communication in February 2000 that seeks to inform all interested parties—and in particular the European Parliament, the Council, and the Member States—of the manner in which that institution applies or intends to apply the principle when faced with taking decisions relating to the containment of risk.[358]

[343] According to the Communication on the precautionary principle, the determination of what constitutes an 'acceptable' level of risk for society is an eminently *political* responsibility.

[344] Regulation (EC) No. 1829/2003 on GM food and feed ([2003] OJ L268/1) provides that as risk assessments cannot provide all the information on which a risk management decision should be based, 'other legitimate factors relevant to the matter under consideration' may be taken into account (Art. 6(6)). By the same token, Art. 6(3) of the GFL Regulation (EC) No. 178/2002 states that risk management 'shall take into account the results of risk assessments' as well as 'other factors legitimate to the matter under consideration' ([2002] OJ L31/1). Likewise, the EU Courts acknowledge the possibility of including 'consumers' concerns' in the balancing process. Eg Cases T-344 & 345/00 *LEVA & Pharmacia Enterprises v Commission* [2003] ECR II-229, para. 66.

[345] There is no shortage of illustrations of risk trade-offs. Eg CFCs were banned under the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal, 16 September 1987) and replaced by other gases known as HCFCs, which are mildly damaging to the ozone layer. However, the concentrations of ozone-friendly HCFCs are rising rapidly. Given that their warming effect is 2,100 times that of carbon dioxide, they seriously compound the risk of climate change.

[346] EEA, *Late Lessons from Early Warnings: the Precautionary Principle 1896–2000* (Copenhagen: EEA, 2001) 168.

[347] According to the Court of Justice, observance of the precautionary principle is reflected in the GMO notifier's obligation immediately to notify ... of the product it has placed on the market and the competent authority's obligation immediately to inform the Commission and other Member States of this information. See *Greenpeace France* (n 193), para. 44.

[348] Communication from the Commission on the Precautionary Principle (COM(2000) 1).

[349] *Greenpeace France* (n 193), para. 44; Case C-77/09 *Gowan* [2010] ECR I-13533, para. 79; and *Dupont de Nemours* (n 333), para. 181.

[350] According to case law, 'the safeguard clause must be understood as giving specific expression to the precautionary principle'. See *Greenpeace France* (n 193), para. 55; *Monsanto Agricoltura Italia* (n 162), para. 110; and Case C-36/11 *Pioneer Hi Breed Italia* [2003] OJ C355/5, paras 51–5.

[351] The proportionality principle does not preclude the adoption of bans of hazardous substances in the light of the precautionary principle. See Case T-13/99 *Pfizer Animal Health v Council* [2002] ECR II-3305, para. 457.

[352] I. Cheyne, 'Taming the Precautionary Principle in EC Law: Lessons from Waste and GMO Regulation' (2007) 4:6 *JEEPL* 468–84. However, as a matter of practice, the European Commission appears to have failed to apply the principle in a balanced way, veering to the extremes of either a genuine science-based decision or somewhat politicized rhetoric. See M. Weimer, 'Applying Precaution in EU Authorisation of Genetically Modified Products—Challenges and Suggestions for Reform' (2010) 16:5 *ELJ* 624–57.

[353] *SPCM and others* (n 249), para. 54.

[354] The Communication from the Commission on the Precautionary Principle stresses that precautionary action 'must, in certain cases, include a reversal of the burden of proof'. As regards GMOs, Directive 2001/18/EC requires applicants to carry out an environmental risk assessment of the GMO being proposed for authorization ([2001] OJ L106/1). By the same token, EU chemicals legislation has moved in a similar direction in requiring applicants to collect, elaborate, and present the scientific and factual data about their substances. See the REACH and Classification, Labelling and Packaging Regulations.

[355] Council Regulation (EC) No. 2371/2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy [2002] OJ L358/59, Art. 2(1). See Case C-453/08 *Karanikolas* [2010] ECR I-7895, para. 45.

[356] Case C-157/96 *National Farmers' Union and others* [1998] ECR I-2211, para. 64; Case C-180/96 *UK v Commission* [1998] ECR I-2265, para. 100; *Gowan* (n 349), para. 72.

[357] REACH Regulation, Arts 1 and 3 as well as recitals 9 and 69.

[358] Communication from the Commission on the Precautionary Principle (COM(2000) 1), para. 2. The communication was intended to build a consensus among the Directorates General, paving the way for a common position among EU institutions and a common understanding between Member States. While the

7.6.5.1 EU Courts confronted with the principle

Given that the precautionary principle is binding on the EU institutions, it can be invoked in an action for annulment by the applicant (eg by an institution or a private party) before the Court of Justice or the General Court to contend with the validity of secondary legislation (mostly, in the field of environmental protection, consisting of directives and regulations). The applicant may therefore argue before the EU Courts that the lawmaker has wrongly failed to apply the principle. The fact that such a Treaty principle has been infringed will constitute a ground for annulment. So far, the principle has mainly been invoked in lawsuits dealing with health and safety issues. Nonetheless, environmental cases are highlighting a new role for the principle as a means of controlling the discretion of the EU institutions.

Moreover, the extent to which national authorities are bound by the principle has been addressed in many preliminary ruling requests by virtue of Article 267 TFEU and action for infringement by virtue of Articles 258–260 TFEU. Therefore, it comes as no surprise that the EU Courts have been regularly asked to rule on the precautionary principle.

Although EU lawmakers are reluctant to define the principle, the EU courts have endorsed such an anticipatory approach. The jurisprudential definition of the precautionary principle runs as follows: 'where there is uncertainty as to the existence or extent of risks to human health, protective measures may be taken without having to wait until the reality and seriousness of those risks become fully apparent'.[359] That said, the status of the principle is still dogged by controversy. Whereas the Court of Justice has been more careful in speculating about the nature of the principle,[360] the General Court took the view in *Artegodan* that that precaution was a general principle of EU law.[361]

In looking at the EU Courts' case law, one needs to draw a line between the health and food safety cases[362] and genuine environmental cases (climate change, waste management, water and nature conservation). With respect to health issues, where scientific knowledge is far more advanced than it is in the environmental sector, various rules of secondary law define the precautionary principle further in connection with the Commission's implementing powers.[363] It is in this area that the case law has been particularly developed.

The stricter approach endorsed by the EU Courts with respect to the health and food safety cases can be explained by the fact that those cases chiefly deal with the placing on the market of products (GMOs, food additives, medicinal products) where a fundamental principle of Treaty law, the free movement of goods, is at stake.[364] Whereas in the environmental cases, the Courts have to balance economic freedoms—that is, the right to property, the freedom to pursue a trade or business—vis-à-vis an EU public interest—that is, the objective of a high level of health protection—in the latter cases the Courts have to weigh an EU public interest—free movement of goods enshrined in Articles 34–36 TFEU—against a national public interest—the willingness to depart from EU harmonized standards according to Article 114(4) and (5) TFEU or to maintain a measure impinging upon trade according to Article 36 TFEU or the rule of reason.[365]

Conversely, with respect to environmental cases, the obligation to take account of the most salient scientific findings does not warrant strict rules of evidence.[366] In effect, the uncertainties are far more important in this field given the difficulty of predicting the reactions of ecosystems to ecological risks. Ecosystems are subject to chaotic fluctuations that are not adequately modelled, nor even understood in traditional scientific terms.[367] In addition, the environmental cases so far decided by the Court of Justice deal mostly with the interpretation of provisions of several environmental directives, rather than with the functioning of the internal market and the fundamental principle of free movement of goods.

It is also important to note that the intensity of review exercised by the EU Courts varies extensively. In effect, one needs to draw a line between, on the one hand, lawsuits brought by a private party against a directive, a regulation, or a decision and, on the other hand, actions for infringement of EU law brought by the Commission against the Member States. With respect to cases regarding actions for annulment, the precautionary principle generates a review test of adequacy of scientific evidence

communication is typically a soft law instrument, it is not devoid of legal consequences. Indeed, applying the principle of equal treatment, the EU judiciary can ascertain whether an EU measure is consistent with the guidelines that the institutions have laid down for themselves by adopting such a communication. See Case T-13/99 *Pfizer Animal Health v Council* [2002] ECR II-3305, para. 123.

[359] See *National Farmers' Union and others* (n 356), para. 63; *UK v Commission* (n 356), para. 99; *Monsanto Agricoltura Italia* (n 341), para. 111; *Gowan* (n 356), para. 73; Case C-333/08 *Commission v France* [2010] ECR I-757, para. 91; and *Afton* (n 138), para. 62. See also *Pfizer* (n 358), para. 139.

[360] AG Kokott took the view that a legislative measure adopted on the basis of Art. 114 TFEU cannot be directly assessed according to whether it observes the precautionary principle. See Opinion AG Kokott in *Afton* (n 138), para. 54. That reasoning was implicitly endorsed by the Court of Justice.

[361] Due to its highly abstract nature and particularly broad scope of application, the precautionary principle could then be defined 'as a general principle of [EU] law requiring the competent authorities to take appropriate measures to prevent specific potential risks to public health, safety and the environment, by giving precedence to the requirements related to the protection of those interests over economic interests'. Joined Cases T-74, 76, 83–85, 132, 137 & 141/00 *Artegodan* [2002] ECR II-4945, para. 184; and *Dupont de Nemours* (n 333), para. 134.

[362] In fact, over the past years, the precautionary principle has regularly been invoked before the EU Courts in major food safety and drugs cases. The case law has not only managed to extend the scope of application of the precautionary principle to all policies involving scientific uncertainty, but has also introduced extremely useful clarification of [illegible]

of public health. See N. de Sadeleer, 'The Precautionary Principle in EC Health and Environmental Law' (2006) 12 *ELJ* 139–72; A. Szajkowska, 'The Impact of the Definition of the Precautionary Principle in EU Food Law' (2010) 47 *CML Rev* 173–96.

[363] It should at this point be noted that in contrast to EU food safety and chemicals regulations where the principle is expressly defined (GFL Regulation, Art. 7; See Szajkowska (n 362), 173), few environmental directives or regulations specifically mention the precautionary principle in their operative provisions (REACH Regulation, Art. 1; Regulation 1107/2009, Art. 1(4)).

[364] Opinion AG Poiares Maduro in *Commission v Netherlands* (n 198), para. 30. According to the AG, 'the discretion that Member States are allowed as regards recourse to the precautionary principle is increasingly restricted the further they depart from scientific analysis and the more they rely on policy judgment', in particular in cases of lack of data on account of the novelty of the product or a lack of resources in conducting scientific research (para. 33). The Court of Justice did not address that issue.

[365] Case C-120/78 *Rewe-Zentral* ('*Cassis de Dijon*') [1979] ECR I-649.

[366] Opinion AG Kokott in *Afton* (n 138), para. 34.

…ruling, the Court of Justice resorts to precaution as an interpretative principle.[368]

We shall restrict ourselves to commenting on the environmental cases ranging from wildlife conservation measures to chemical management issues, although several of them overlap to some extent with health issues. As will be seen, relying explicitly or implicitly upon the precautionary principle, the Court of Justice departs from a literal interpretation of obligations laid down in secondary law. Moreover, the cases commented on in this section are testament to the binding effect of the principle as regards Member State measures.

7.6.5.2 Reviewing the scientific evidence needed to adopt precautionary measures

Questions arise as to in which category of foreseeability we should range anticipated risks on the basis of the precautionary principle. Should the principle apply to all suspected risks? Does the adoption of a measure require a minimum set of indications showing that the suspected risk is well founded, or are public authorities relieved of all proof requirements when confronted by an important risk? Is there an obligation for scientists to disclose all uncertainties?

The EU Courts' as well as the EFTA Court's reply to these questions is that a preventative measure cannot properly be based on a purely hypothetical consideration of the risk, founded on mere conjecture which has not been scientifically verified.[369] Accordingly, a generalized presumption of a health risk must be supported by scientific evidence explaining the need to adopt a pre-marketing authorization scheme.[370] In this way, the European Courts exclude from the scope of application of the principle such risks qualified as residual—that is, speculative risks founded upon purely speculative factors and with no basis in science. It follows that there must exist a threshold of scientific plausibility.

However, the concept of hypothetical risk is fraught with controversy. As has been held by the Court of Justice, this concept must not be interpreted too broadly. In *Solvay Chemicals*, the Court of Justice held that a Council decision highlighting the difficulties faced by scientists in determining the extent of a risk did not amount to a 'purely hypothetical risk'.[371] Likewise, the restrictions placed on the use of an active substance of a plant protection product cannot be considered to be based on purely hypothetical considerations when the EU institutions work on different items of evidence, such as scientific studies and reports and the ongoing work of the OECD.[372]

Basic scientific knowledge is thus required. For instance, the principle cannot be invoked by the Commission with a view to softening the standards of proof as regards water that in the near future may become eutrophic. Given that the Commission must and of the existence of the relationship of cause and effect, the likelihood of eutrophication is insufficient.[373] That said, the Commission does not have to provide irrefutable evidence that the criteria are fulfilled.

Scientific issues are also gathering momentum with respect to the complex relationship between internal market rules and environmental policy. For instance, paragraph 5 of Article 114 TFEU authorizes the Member States, insofar as certain conditions are fulfilled, to 'introduce' more stringent measures than those provided for by an EU measure related to the functioning of the internal market.[374] These measures must be based on 'new scientific evidence'. The question arose as to whether an Austrian province could ban GMOs on its territory with the aim of protecting nature as well as organic farming pursuant to that paragraph. The European Commission contended that the scientific evidence gathered by the Austrian authorities in the light of the precautionary principle was not 'new scientific evidence' in the sense of paragraph 5 of Article 114 TFEU. Advocate General Sharpston took the following view in her Opinion: 'Having regard to … the precautionary principle, …, no amount of precaution can actually render that evidence or that situation new. The novelty of both situation and evidence is a dual criterion which must be satisfied before the precautionary principle comes into play.'[375] The Court of Justice dismissed the appeal lodged by the Austrian authorities, claiming that the General Court had not erred in law by stating that the findings of the European Food Safety Authority concerning the absence of scientific evidence demonstrating the existence of a specific problem had been taken into consideration by the Commission.[376] In other words, the principle does not prevail over the obligation for the Member State to bear the burden of the proof as regards the novelty of the scientific evidence.

This prompts the question of the quality or the severity of the scientific knowledge needed to adopt precautionary measures. No easy answer can be given. At first glance, the open-textured term 'reasonable grounds for concerns' set out in the Commission guidelines leaves a wide margin of discretion to the EU institutions. By the same token, the Court of Justice and the General Court alike have expressed the view that 'where it proves to be impossible to determine with certainty the existence or extent of the alleged risk because of the insufficiency, inconclusiveness or imprecision of the results of studies conducted, but the likelihood of real harm to public health persists should the risk materialise, the precautionary principle justifies the adoption of restrictive measures'.[377] Nevertheless, there are no further indications in relation to the manner in

[368] E. Scotford, 'Mapping the Article 174(2) EC Case Law: A First Step to Analysing Community Environmental Law Principles' (2008) 8 *YbEEL* 20–41.

[369] *Pfizer* (n 358), para. 143; see also *Monsanto Agricoltura Italia* (n 162), para. 106; *Commission v Denmark* (n 212), para. 49; *Commission v Netherlands* (n 198), para. 52; *Monsanto* (n 229), para. 77; Case E-3/00 *EFTA Surveillance Authority v Norway* (2000–01) EFTA Ct. Rep. 73, para. 29.

[370] *Commission v France* (n 359), para. 97.

[371] *Solvay v Council* (n 166), para. 135.

[372] *Gowan* (n 356), para. 78.

[373] Case C-390/07 *Commission v UK* [2009] ECR I-214, para. 28.

[374] See Chapter 7, Section 3.2.

[375] Opinion AG Sharpston in Joined Cases C-439/05 P & C-454/05 P *Land Oberösterreich and Republic of Austria v Commission of the European Communities* [2007] ECR I-7441, para. 134.

[376] *Land Oberösterreich and Republic of Austria v Commission of the European Communities* (n 375), para. 64.

[377] *Commission v Denmark* (n 212), para. 55; *Commission v Netherlands* (n 198), para. 54; *Commission v France* (n 359), para. 93; *Gowan* (n 356), para. 76; *Afton* (n 138), para. 61; and *Dupont de Nemours* (n 333), para. 142. Moreover, these criteria are listed in the Commission's communication on the precautionary principle, COM/2001/1, 10.

which these three criteria should be interpreted.[378] It must also be kept in mind that any scientific advice is surrounded by some degree of uncertainty. Is it impossible to determine more precisely the thresholds needed to trigger the adoption of precautionary measures?[379]

Attention should be drawn to the fact that the lessons that can be drawn from the case law on food safety[380] cannot be applied, as such, to environmental cases.[381] As stressed by Advocate General Kokott, with respect to subject areas where the precautionary principle has not been defined further in connection with the Commission's implementing powers, 'the obligation to take account of the latest scientific findings does not ... warrant strict rules of evidence'.[382]

Moreover, the EU institutions 'may disregard the conclusions' drawn by experts.[383] For example, in *Mondiet* the Court held that precautionary measures do not have to be in complete conformity with scientific opinion.[384] In *Gowan*, the Court held that in restricting the period during which a hazardous substance can be placed on the market, the Commission and the Council were not bound by the national report on the substance and the opinion of the EU scientific committee that validated the report. The institutions thus remain entitled to adopt different risk management measures from those proposed by the rapporteur.[385]

Nonetheless, in so doing, the institutions 'must provide specific reasons for their findings by comparison with those made in the opinion and its statement of reasons must explain why it is disregarding the latter.' Consequently, as a matter of procedure, 'the statement of reasons must be of a scientific level at least commensurate with that of the opinion in question'.[386]

7.6.5.3 Discretionary power, high level of protection, and precautionary principle

As regards actions for annulment, it needs merely to be noted that the EU Courts are fully aware of the difficulties of regulating either in controversial cases or where action is urgently required. On that basis, they rightly show themselves to be seldom inclined to penalize institutions for any errors which they may have committed in their desire to safeguard the general interest. Hence, review must be limited to cases in which the institutions are required to undertake a scientific risk assessment and to evaluate highly complex scientific and technical facts.[387] As discussed later, the review must be circumscribed to (1) the compliance with the relevant procedural rules, (2) the accuracy of the statement of facts, and (3) the existence of a manifest error of appraisal or misuse of powers.[388]

Regarding health and environmental risks, the Courts have stressed that the institutions enjoy wide discretion in determining the scope of precautionary measures according to the nature, severity, and scope of the risk involved. Indeed, where the EU institutions are called upon to make 'complex assessments', they enjoy a wide margin of discretion when they adopt risk management measures.[389] As a result, the EU judiciary has shown restraint as it is not entitled to substitute its own assessment of the facts for that of the institutions on which the Treaty confers sole responsibility.[390] In this respect, when invoking the principle or the idea of precaution, the Court of Justice[391] and the General Court[392] have on various occasions in the past rejected lawsuits founded on manifest errors of appraisal committed by the institutions when taking decisions which were not fully justified in the light of prevailing scientific knowledge.

This analysis can be taken a little further. At the outset, one could take the view that the undefined principle offers no guidance about actions to take in the face of uncertainty. Therefore, one is driven to the conclusion that the precautionary principle does not determine a general level of protection; it simply makes it easier for the institutions to enact preventive measures. Hence, it may be argued that the decision to invoke the principle will depend 'as a general rule on the level of protection chosen by the competent authority'.[393] On this matter, the General Court has held that: 'it is for the [EU] institutions to determine the level of protection which they deem appropriate for society'.[394] Accordingly, it is by reference to that level of protection that the institutions may be required to take preventive measures in spite of any existing scientific uncertainty. Therefore, determining the level of risk deemed unacceptable 'involves the [EU] institutions in defining the political objectives to be pursued under the powers conferred on them by the Treaty'.[395]

[378] The criteria might differ. Whereas it is settled case law that EU institutions might act whenever the 'scientific evidence is insufficient, inconclusive or uncertain', under Art. 6(2) of the 1995 UN FAO Code of Conduct for Responsible Fisheries and the 1995 UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, the obligation to endorse a precautionary approach reads: 'States shall be more cautious when information is uncertain, unreliable or inadequate'.

[379] R. von Schomberg, 'The Precautionary Principle' in W. S. Bainbridge (ed.), *Leadership in Science and Technology* (London: Sage, 2011).

[380] For a systematic analysis of this case law, see N. de Sadeleer, 'The Precautionary Principle in EC Health and Environmental Law' (2006) 12 *ELJ* 139–72.

[381] In order to fulfil the scientific requirements laid down in the case law, it is not necessary that a precautionary measure refers expressly to the precautionary principle. See *Solvay v Council* (n 166), para. 124.

[382] AG Kokott in *Afton* (n 138), para. 34.

[383] Eg the Commission can depart from the scientific opinion of the European Food Safety Authority insofar as it can justify such departure appropriately. See *Pfizer* (n 166), paras 199–200.

[384] *Mondiet* (n 173), para. 31.

[385] *Gowan* (n 356), para. 60; and *Dupont de Nemours* (n 333), para. 269. Regarding the validity of a decision based on US studies, see Case T-260/11 *Polyelectrolyte* [2013].

[387] *Pfizer* (n 166), para. 169.

[388] *Gowan* (n 356), para. 56.

[389] *UK v Commission* (n 166), para. 97; *Artegodan* (n 107), para. 201; *Solvay Chemicals* (n 166), para. 126; *Gowan* (n 356), paras 55 and 82; *Afton* (n 138), para. 28; and *Polyelectrolyte* (n 385), para. 29.

[390] *Pfizer* (n 166), para. 169.

[391] See Case 174/82 *Sandoz* [1983] ECR 2445, para. 17; Case C-331/88 *Fedesa* [1990] ECR I-4023, para. 9; *UK v Commission* (n 166), paras 99 and 100; and Case C-127/95 *Norbrook Laboratories Ltd* [1998] ECR I-1531.

[392] See Case T-199/96 *Laboratoires pharmaceutiques Bergaderm SA* [1998] ECR II-2805, paras 66 and 67. In *Pfizer* (n 166) and *Alpharma* (n 341), the General Court noted that 'the legislature has a discretionary power which corresponds to the political responsibilities given to it by [Art. 40 TFEU] Article 34 of the EC Treaty and [Art. 49 TFEU]' (para. 412). The Court concluded that the adoption of the regulation in question did not constitute a manifestly inappropriate measure for the achievement of the pursued objective. See also Case T-257/07 R *France v Commission* [2007] ECR II-4153, para. 67.

[393] *Artegodan* (n 361), para. 186; *Solvay* (n 166), para. 125.

[394] *Pfizer* (n 166), para. 151; and *Dupont de Nemours* (n 333), paras 137 and 145.

This reasoning is not devoid of legal consequences. In practice, this means that the fact that the decision-maker paid little heed to the level of protection would limit any subsequent recourse to the principle. Conversely, giving protection of health or the environment precedence over economic considerations at an early stage would enhance the principle. As this review of the implementation of the high level of protection has shown, the level set out by the lawmaker is likely to vary significantly as it can be set either in qualitative terms or in quantitative terms. This wide discretion entails the risk that at the end of the day a low level of protection could belittle recourse to the principle. That said, this discretion is far from absolute. Indeed, with respect to the enactment of precautionary environmental measures, the institutions are obliged to seek a high level of environmental protection.[396] In particular, environmental and health protection take precedence over economic interest.[397]

However, precautionary measures 'must not aim at zero risk' as this may be deemed to be disproportionate.[398] Nevertheless, nothing precludes the EU institutions from endorsing a 'zero tolerance' policy with regard to certain risk factors for which the producer cannot adduce proof that they are acceptable.[399] In particular, the concept of zero tolerance may, through the precautionary principle, result in the total ban of a substance provided that its potential risk is supported by scientific data.[400]

In any event, case law provides the most striking evidence of the role of the principle in justifying ambitious environmental measures. In this connection, the judgment in *Armand Mondiet* provides a good illustration of the role that the precautionary principle can play in justifying secondary legislation enacted in the face of uncertainty. In this case, the regulation at issue aimed to protect cetaceans taken accidentally against a background of scientific uncertainty.[401] A shipowner challenged EC Regulation 345/92[402] forbidding the use of tangle nets of over 2.5 kilometres in length, on the ground that no scientific data justified this measure and that it did not conform to the only information available although the regulation provided that conservation measures should be drawn up 'in view of the information that was available'.[403] The Court of Justice took the view that in the exercise of its powers, the Council could not be forced to follow particular scientific opinions.[404] It therefore follows that the Council did not make any manifest error of appraisal by banning certain tangle nets despite the uncertainty involved.

Unlike waste management policy, the regulatory approach regarding the safety of chemicals is afflicted with rather cumbersome, time-consuming, and expensive scientific assessments.[405] In fact, chemicals policies are designed with a general preference for a certainty-seeking regulatory style in which formal, science-based, and standardized risk assessment has been singled out as the predominant tool for decision-making relating to chemicals. Although chemicals assessment procedures have called for absolute certainty, data are nonetheless incomplete and results may be unclear or contradictory. As it is difficult to establish causal links between exposure to chemicals and health or environmental effects, there is generally a significant degree of uncertainty in estimates of the probability and magnitude of effects associated with a chemical agent. As the result of limited knowledge, experts are not always able to provide conclusive evidence of a threat to human health and the environment. It follows that the precautionary principle has been at the core of the negotiations of the REACH Regulation and Regulation (EC) No. 1107/2009 concerning the placing of plant protection products, both of which proclaim the precautionary principle.[406] Besides, both the General Court and the Court of Justice have endorsed a closer look at the Commission's attempts to relax somewhat the level of safety requirements in the area of active substances found in plant protection products and chemicals.

Against that backdrop, the principle can shed new light on the duty to place on the market only products not endangering human health. In this respect, the *Paraquat* judgment handed down by the General Court on 11 July 2007 is a case in point. Paraquat is an active substance used in plant protection products. Such active substances can be listed under Annex I to former Directive 91/414[407] on plant protection products inasmuch as the use of the products, 'in the light of current scientific and technical knowledge', will not have any harmful effects on animal health. Adjudicating an action for annulment lodged by Sweden against a European Commission decision listing Paraquat under Annex I to Directive 91/414/EC in spite of the hazards entailed by the use of the active substance, the General Court stressed that the safety requirement had to be interpreted 'in combination with the precautionary principle'. It follows that 'in the domain of human health, the existence of solid evidence which, while not resolving scientific uncertainty, may reasonably raise doubts as to the safety of a

[396] *Gowan* (n 356), para. 71.

[397] *Solvay* (n 166), para. 125; Case T-177/02 *Malagutti* [2002] ECR II-830, para. 186; *Artegodan* (n 107), para. 186.

[398] Communication of the European Commission, no. 6.3.1, para. 18. *Pfizer* (n 166), para. 145; *Alpharma* (n 341), para. 158.

[399] Case C-121/00 *Hahn* [2002] ECR I-9193, para. 93; *Solvay* (n 166), para. 97.

[400] Taking account of the genuine risk that the intake of fluoride in food supplements will exceed the upper safe limit established for that mineral, a Member State may set the maximum amount of fluoride which may be used in the manufacture of food supplements at zero. Case C-446/08 *Solgar Vitamin's France* [2010] ECR I-03973, para. 47.

[401] Case C-405/92 *Armand Mondiet* [1993] ECR I-6133.

[402] Regulation (EEC) No. 345/92 amending for the eleventh time Regulation (EEC) No. 3094/86 laying down certain technical measures for the conservation of fishery resources (no longer in force) [1992] OJ L42/15.

[403] AG Gulmann concurred with the Commission's argument that 'it is sometimes necessary to adopt measures as a precaution'. In order to conserve tuna stocks, for which insufficient scientific data existed, total allowable catch (TAC) had been based on that principle (Opinion AG Gulmann in *Mondiet*

[404] *Armand Mondiet* (n 401), paras 31–6.

[405] C. F. Cranor, *Toxic Torts. Science, Law, and The Possibility of Justice* (Cambridge: CUP, 2010) 9–13.

[406] REACH Regulation, Art. 1 and European Parliament and Council Regulation (EC) No. 1107/2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC [2009] OJ L309/1, Art. 1(4). In addition, the EU is party to the Stockholm Convention on Persistent Organic Pollutants (POPs) that lays down the precautionary approach as its main objective (preamble, eighth recital; and Arts 4 and 8(7)) (Stockholm, 22 May 2001) and to the London International Maritime Organization (IMO) Convention on the Control of Harmful Anti-Fouling Systems on Ships, which establishes a precautionary mechanism to prevent the potential future use of other harmful substances in anti-fouling systems (Art. 6(3) and (5); preamble, fifth recital) (London, 5 October 2001).

[407] Directive 91/414/EEC concerning the placing of plant protection products on the market [1991] OJ

Directive 91/414'.[408]

Another recent case raises some of the same issues, but in the context of an entirely different procedure. The European Parliament and Denmark sought review before the Court of Justice of a general exemption granted by the European Commission for the use of a hazardous chemical substance, deca-BDE, used as a flame retardant in electrical and electronic equipment. The applicants argued that the conditions laid down by the Community legislature in Article 5(1) of Directive 2002/95 of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment had not been met. They claimed that the decision at stake ran counter to the objective pursued by that legislature of establishing the principle of the prohibition of the components referred to in that directive. In analysing the preamble, the Court reached the conclusion that the intention of the legislature was to prohibit hazardous products referred to in the directive and to grant exemptions 'only in accordance with carefully defined conditions'.[409] The Court expressed the view in *obiter dictum* that:

> Such an objective, in compliance with [Article 168 TFEU], according to which a high level of human health protection is to be ensured in the definition and implementation of all Community policies and activities, and in compliance with [Article 192(2) TFEU], according to which EU policy on the environment is to aim at a high level of protection and is based on the principles of precaution and preventive action justifies the strict interpretation of the conditions for exemption.[410]

In this second judgment, the precautionary principle was not applied by the Court of Justice as a ground for annulment, but as an interpretative principle supporting a strict interpretation of the basic safety requirements laid down by the EU lawmaker.

Finally, these two judgments have thrown into relief the willingness of both the General Court and the Court of Justice to investigate in detail the scientific evidence underlying contested decisions. Therefore, these judgments are markedly at odds with previous case law according to which judicial review of scientific evidence has to be limited.[411]

7.6.5.4 Justification of restrictions on economic freedoms

The precautionary principle can lower the scientific hurdles national regulators face while trying to protect environmental values to the detriment of certain economic freedoms, such as the free movement of goods. Against this background, bans,[412] safeguard clauses,[413] pre-market system,[414] restrictions on marketing licences,[415] and

[408] Case T-229/04 *Sweden v Commission* [2007] ECR I-2437, paras 161 and 224.
[409] *Sweden v Commission* (n 408), para. 170.
[410] Cases C-14/06 and C-295/06 *European Parliament v Commission* [2008] ECR I-1649, paras 74–5.
[411] Zander (n 195), 115.
[412] The time limit placed on the marketing of a substance does not amount to a ban on account that nothing precludes the renewal of the authorization. See *Gowan* (n 356), para. 84.
[413] *Monsanto Agricoltura Italia* (n 162), para. 106.
[414] *Gowan* (n 356), para. 74.
[415] There is no inconsistency between the grant of a temporary authorization and the simultaneous pursuit of the same authorization. See *Solvay* (n 166), para. 108.

recourse to the principle does not necessarily imply urgency.[417] The manner in which precaution is likely to justify these limitations on economic freedoms can be illustrated by the following cases.

The *Toolex* judgment provides striking evidence of the use of the precautionary principle in the resolution of a conflict between undertakings and a Member State, which departed from EU harmonized standards.[418] Interestingly, the case does not refer to the principle specifically, but does apply the anticipative approach in the face of the uncertainty behind the principle. The *Toolex* case arose from a challenge to the Swedish decision to ban the chemical substance trichloroethylene, which had been classified as a category 3 carcinogen under Directive 67/548/EEC[419] on the classification of dangerous substances.[420] Although the Swedish ban was tantamount to a measure having effect equivalent to a quantitative restriction within the meaning of Article 34 TFEU,[421] the Court of Justice took the view that it was compatible with the Treaty insofar as it was necessary for the effective protection of the health and life of human beings despite scientific uncertainties surrounding the effects of exposure to the chemical.[422] In other words, the lingering uncertainties regarding the impact of this hazardous substance used in industry did not preclude the Swedish authorities from regulating it, and, as a result, from restricting the free movement of goods in that country; although that substance could be freely traded within the EU.

Another case in point is *Bluhme*, where the Court of Justice ruled that a Danish wildlife measure prohibiting the import of any species of bee other than the endemic population *Apis mellifera mellifera* into a Baltic island was justified under Article 36 TFEU, notwithstanding the lack of conclusive evidence establishing both the exact nature as a matter of taxonomy of the endemic population and its risk of extinction.[423]

A final illustrative example is that of listing wild animals that can be traded. According to Court of Justice case law, an application to include a species of mammal on a national 'positive' list of protected species that cannot be subject to trading may be refused by the competent national authorities only if the holding of specimens of that species poses a genuine risk to the protection of the environment or other imperative requirements such as animal welfare.[424] This requirement appears necessary to comply with the free movement of goods. An application to have a species included on the list of species of mammals that may be held or traded may be refused by the competent authorities only on the basis of a full assessment of the risk posed to the environment. Nevertheless, the precautionary principle leaves the Member States some room for manoeuvre in order to cope with uncertain scientific issues, such as how to determine

[416] *SPCM and others* (n 249), para. 54.
[417] *Solvay* (n 166), para. 135.
[418] Case C-473/98 *Toolex* [2000] ECR I-5681.
[419] [1967] OJ 196/1.
[420] Several scientists contended that classification owing to the hazards entailed from use of the substance in question. Given that the EC committee was unable to reach agreement on an evaluation of that substance (Opinion AG Mischo in *Toolex* (n 418), para. 63), the Swedish Government decided to ban the substance on the ground that its use endangered workers' health and, consequently, endorsed a more stringent approach than the one contemplated at the EU level.
[421] See Chapter 6, Section 3.2.2.
[422] See *Toolex* (n 418), para. 47.
[423] Case C-67/97 *Bluhme* [1998] ECR I-8033.
[424] As regards the technique of positive list, see Chapter 5, Section 7.3.

...e negative impact of trading a mammal species on the conservation of their wild population. In that regard, the Court of Justice has taken the view that: 'Where it proves impossible to determine with certainty the existence or extent of the risk envisaged because of the insufficiency, inconclusiveness or imprecision of the results of the studies conducted, but the likelihood of real harm to human or animal health or to the environment persists should the risk materialise, the precautionary principle justifies the adoption of restrictive measures.'[425]

7.6.5.5 Member States are bound by a purposive interpretation of their environmental obligations

Pursuant to Article 258 TFEU, the European Commission regularly brings Member States before the Court of Justice for failure to implement EU directives and regulations aimed at protecting the environment. In addition, pursuant to Article 267 TFEU, national courts refer questions to the Court for preliminary rulings as to the validity and the scope of EU environmental directives and regulations. In these cases, the Court is confronted with competing interpretations. Whether the action is for infringement of EU law or whether it is a request for preliminary ruling, the defendant Member States usually support a somewhat narrow interpretation of EU environmental obligations, whereas national NGOs and the European Commission lean towards a purposive interpretation of the obligations at stake.

The following cases illustrate the manner in which the principle buttresses a purposive interpretation of the obligations placed on State authorities.

(i) *GMOs*

In *Greenpeace*, a case concerning marketing approval for genetically modified maize, the Court of Justice held that the principle of precaution implies that the former EC Directive 90/220/EEC relating to the placing on the market of GMOs should be interpreted in such a way that gives full weight to environmental protection requirements.[426] Although the precautionary principle was not supposed to affect the interpretation of the directive's requirements regarding the obligation on the national authorities to give their consent to GM products already authorized by the Commission, the Court held that:

> the system of protection put in place by Directive 90/220/EEC, . . . , necessarily implies that the Member State concerned cannot be obliged to give its consent if in the meantime it has new information which leads it to consider that the product for which notification has been received may constitute a risk to human health and the environment.[427]

English, the mood, verb tense, and construction of the obligation laid down in the Directive to grant consent all constituted an a priori invitation to the Court to recognize that the French State was bound (*compétence liée*) by the decision of the European Commission to allow commercialization of genetically modified maize.[428] Nevertheless, the precautionary principle allowed the Court of Justice to reach a far more nuanced solution, by recognizing the right of a Member State to oppose the placing on the market of GMOs on the ground of the emergence of new risks. In this decision, the precautionary principle took the form of an interpretative principle of law, which served to correct the effect of a provision the meaning of which could nevertheless be directly established. In other words, the principle of precaution appears capable of modifying the meaning of even a relatively clear text in favour of greater environmental protection in the face of uncertainty.[429]

(ii) *Waste*

A further example is the differentiation between waste and product, which has been the subject of much heated academic debate as well as litigation in EU law.[430] Pursuant to Article 192(2) TFEU, EU environmental policy aims at a high level of protection and must be based, in particular, on the precautionary principle and the principle that preventive action should be taken.[431] It follows that the concept of waste cannot be interpreted restrictively. In a similar fashion, the Court, in *Lirussi and Bizzaro*, used both the preventive and precautionary principles as interpretative devices in determining the scope of the obligations regarding the legal regime applicable to temporarily stored waste.[432]

(iii) *Biodiversity*

As far as biodiversity is concerned, attempts to conserve habitats and their species must grapple with a wide range of uncertainty as well as ignorance.[433] The difficulties are compounded by the lack of sufficient data as well as the fact that modelling the functioning of ecosystems and understanding the complex relationship between human activities and the state of preservation of ecosystems and species remain complex.[434] Indeed, there are still major gaps in the understanding of how ecosystems

[425] Case C-219/07 *Nationale Raad van Dierenkwekers en Liefhebbers VZW* [2008] ECR I-4475, para. 38.

[426] *Greenpeace France* (n 193), paras 28–30.

[427] Account must be taken of the fact that *Codacons* is markedly at odds with the *Greenpeace* judgment. In a preliminary reference, the ECJ took the view that the exception from the Regulation's labelling requirements in the case of foodstuffs where the concentration of GM food was less than 1 per cent had to be applied strictly as regards infant food. In particular, the Court stressed that there was no indication from the wording, the context, or the purpose of the exception regime that labelling requirements should apply to infant food. Moreover, this interpretation could not be called into question 'on the basis of the precautionary principle' that was found to be applicable exclusively as part of the decision-making process. See Case C-132/03 *Codacons* [2005] ECR I-4167, paras 56–64.

[428] G. Van Calster, *Handbook of EU Waste Law* (Richmond: Richmond Law & Tax, 2006) 9–32; N. de Sadeleer, 'Waste, Products and By-Products' (2005) 1:4 *JEEPL* 46; N. de Sadeleer, 'EC Waste Law or How to Juggle with Legal Concepts. Drawing the Line between Waste, Residues, Secondary Materials, By-Products, Disposal and Recovery Operations' (2005) 2:6 *JEEPL* 46.

[429] Cases C-418/97 & C-419/97 *ARCO Chemie Nederland* [2000] ECR I-4475, para. 39; Case C-9/00 *Palin Granit Oy* [2002] ECR I-3533, para. 23; Case C-1/03 *Paul Van de Walle* [2004] ECR I-7613, para. 45; and see N. de Sadeleer, 'Note under Case C-1/03' (2006) 43:1 *CML Rev* 207–23.

[430] Joined Cases C-175/98 & C-177/98 *Lirussi and Bizzaro* [1999] ECR I-6881.

[431] R. Cooney and B. Dickson (eds), *Biodiversity & the Precautionary Principle* (London: Earthscan, 2005).

[432] P. Opdam, M. Broekmeyer, and F. Kistenkas, 'Identifying Uncertainties in Judging the Significance of

be reduced by gathering more accurate data; that is to say, uncertainty is intractable. Accordingly, in adjudicating a number of nature protection cases, the Court of Justice endeavoured to find a precautionary approach. In so doing, the Court implicitly took into consideration the precautionary obligation flowing from the Convention on Biological Diversity, a mixed international agreement.[435]

Another illustrative example is a judgment concerning wild birds. In *Association pour la protection des animaux sauvages et préfet de Maine-et-Loire et préfet de La Loire-Atlantique*, the Court of Justice favoured a determination of the close of the hunting season in a manner that guaranteed the optimal level of protection for avifauna.[436] It judged that in the absence of 'scientific and technical data relevant to each individual case'—that is, in cases of uncertainty—Member States should adopt a single date for closing the season, equivalent to 'that fixed for the species which is the earliest to migrate' and not 'the maximum period of migratory activity'. This means that as long as a degree of uncertainty remains concerning the timing of pre-mating migration of migratory birds, the strictest method of determining the close of the hunting season should override methods attempting to accommodate hunting interests on the basis of scientific approximation.

By ruling against Spain in *Marismas de Santoña* for not having protected wetlands of importance for certain species of migratory birds, in conformity with the Wild Birds Directive,[437] the Court of Justice again adopted a precautionary approach. As no reduction in the number of protected birds had been observed, the Spanish authorities disputed that the destruction of a valuable ornithological site violated the requirements of the Directive. Their argument was rejected on the ground that the obligation to preserve the natural habitats in question applied whether or not the population of protected birds was decreasing in those areas.[438] In so ruling, the Court of Justice considered the context of uncertainty resulting from the fact that destruction of a natural habitat does not necessarily translate into an immediate decline in its animal populations:

> The obligations on Member States ... exist before any reduction is observed in the number of birds or any risk of a protected species becoming extinct has materialised.[439]

Also, in a landmark decision the Court of Justice assessed the validity of Dutch environmental impact assessment regulation on fishing activities taking place within special protection areas for birds in the sea of Wadden. In order for the project to be authorized, Article 6(3) of the Habitats Directive[440] provides for a specific environmental impact assessment procedure of plans or projects 'likely' to affect a conservation site.[441] According to the Court, since the impact study regime covers plans and projects 'likely' to affect a site, the wording of the provision implies that the conductor of the study must be able to identify, according to the precautionary principle, even that damage that is still uncertain.[442] In addition, the Habitats Directive's authorization regime requires that the competent authority ensures that the project at stake will not adversely affect the integrity of the site concerned. As a result, the authorization can only be given when the assessment demonstrates the absence of risk for the integrity of the site. 'Where doubt remains as to the absence of adverse effect on the integrity of the site', the Directive requires, in line with the precautionary principle, the competent authority to refrain from issuing the authorization.[443] Although it is likely to restrict economic and property rights, this authorization criterion 'integrates the precautionary principle'.[444] Conversely, a less stringent criterion would not be as effective in ensuring the fulfilment of the conservation objectives set forth by the EU lawmaker.[445] In accordance with the logic of the precautionary principle, authorities can, if necessary, order additional investigations to remove any uncertainty.[446] Of course, one should note that the strict interpretation endorsed by the Court of Justice is a consequence of the manner in which the authorization regime of projects endangering threatened habitats has been formulated by the EU lawmaker.

(iv) Concluding remarks

Clearly, in all these cases the Court resorted to the precautionary principle as an interpretative aid; hence, this case law mirrors a trend in purposive reasoning.[447] Moreover, the ways in which the principle is interpreted by the EU Courts may result in the imposition of far-reaching obligations on the national authorities.[448]

8. Criteria of the EU Environmental Policy

Pursuant to Article 192(3) TFEU, EU institutions must take several criteria into account when drafting an environmental measure based on Article 192 TFEU:

- available scientific and technical data,
- environmental conditions in the various regions of the Union,

[435] The Preamble to the UN Convention on Biological Diversity (CBD, Rio de Janeiro, 5 June 1992) provides that 'where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat'. Although this statement is not binding on the ground that it is encapsulated in the preamble to the agreement and not its operative provisions, it is not, however, devoid of legal effects. See Case C-67/97 *Bluhme* [1998] ECR I-8033, paras 36 and 38.

[436] Case C-435/93 *Association pour la protection des animaux sauvages et préfet de Maine-et-Loire et préfet de La Loire-Atlantique* [1994] ECR I-67, para. 21.

[437] Directive 79/409/EEC codified by Directive 2009/147/EC on the conservation of wild birds [2009] OJ L20/7.

[438] Case C-355/90 *Commission v Spain* [1993] ECR I-6159, para. 28.

[439] *Commission v Spain* (n 438), para. 54.

[440] Directive 92/43/EC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7.

[441] For a description of this procedure, see N. de Sadeleer, 'Habitats Conservation in EC Law: From Nature Sanctuaries to Ecological Networks' (2005) 5 *YbEEL* 215.

[442] Case C-127/02 *Waddenzee* [2004] ECR I-7405, para. 44.

[443] *Waddenzee* (n 442), para. 57.

[444] *Waddenzee* (n 442), para. 58.

[445] *Waddenzee* (n 442).

[446] Opinion AG Kokott in *Waddenzee* (n 442), paras 99–111.

[447] Doherty (n 180), 76; Scotford (n 368), 23.

[448] Scott (n 328), 55. It should be noted, however, that recourse to the environmental principles will not inevitably imply the most far-reaching interpretation. In *Dusseldorp*, the Court found that the principles of self-sufficiency and proximity did not apply in relation to waste for recovery as opposed to waste for

- the potential benefits and costs of action or lack of action,
- the economic and social development of the Union as a whole and the balanced development of its regions.

These requirements deserve further analysis. First, account must be taken of the available scientific data.[449] The requirement to take scientific data into account must be understood in dynamic terms, since it is necessary to follow the constant development in scientific and technical data. This obligation applies in particular to the procedure governed by Article 114(5) and (6) TFEU.[450]

As a matter of course, it is a truism to assert that science underpins the development of environmental policy.[451] However, the key role of scientific experts gives rise to controversy. Whereas experts have scientific legitimacy, they have neither democratic legitimacy nor political responsibilities.[452] Moreover, should scientific evidence be the decisive criterion in setting up standards? Or should that evidence be weighed against economic, ethical, and social considerations?[453] At first glance, no easy answers can be given. It is to be noted that although the EU must take into account 'available scientific data', it is not however obliged, in accordance with the precautionary principle, to obtain compelling evidence regarding the emergence of the environmental risks which it intends to combat before being able to take action.[454] The case law on the procedures for authorization to place plant protection products on the market provides the most striking evidence of the fact that science alone is not sufficient in the risk management process. Having regard to the complex scientific assessments that the Commission must make when it is called on to assess the risks posed by the use of active substances pursuant to Directive 91/414, the Commission must be allowed a wide discretion. Nonetheless, the exercise of that discretion is not excluded from review by the Court. The EU Courts must verify whether that institution has examined, carefully and impartially, all relevant facts of the individual case, facts which support the conclusions reached.[455] Nonetheless, the institutions may disregard the conclusion drawn from the official scientific body of opinion provided they can appropriately justify such a departure.

Second, the requirement that regional environmental conditions must be taken into consideration is a reminder that the environment in the EU is marked by its diversity. Indeed, environmental conditions as well as pressures on the ecosystems vary tremendously between rural and urban areas, between Northern and Southern Europe, between rich and poor Member States, between low-lying and mountainous countries, and between inland and coastal regions.[456] By way of illustration, thanks to its short and fast-flowing rivers and the adjacent seas and oceans, the UK is endowed with a significant natural advantage compared to other continental Member States. Accordingly, classical pollution problems from industries located along estuaries or the coast are less likely to arise than in the Benelux countries, for instance. Even the consequences of climate change are expected to vary considerably across the EU.[457] However, one should be wary of an approach favouring differentiation of standards to the detriment of uniform standards which are 'easier to formulate and cheaper to administer and to enforce'.[458]

Third, the framers of EU environmental legislation are also required to weigh up the costs and benefits which may result from action or inaction, a requirement which consists in an expression of the proportionality principle.[459] Rising concerns in the 1990s of the impact of EU environmental measures on the competitiveness of national undertakings explain to some extent why this cost–benefit analysis came to the fore. Although this requirement is peculiar in Treaty law to environmental policy, the Commission has combined in one single evaluation the impact assessments relating inter alia to social, economic, and environmental aspects for 'major items of draft legislation'.[460] That said, one should be aware that the assessment of the costs incurred by environmental regulations remains a tall order: their outcomes are significantly influenced by the methods applied and the assumptions made. As a result, there are significant differences between *ex ante* and *ex post* estimates of these costs, the former usually being overestimated.[461] That said, EU institutions are left with a large degree of

[449] Similarly, the Technical Barriers to Trade (TBT) Agreement requires that members shall ensure that the risks countered by their technical regulations are assessed in the light of 'available scientific and technical information'.

[450] Case C-405/07 P *Commission v Netherlands* [2008] ECR I-8301, para. 61; *Afton* (n 138), para. 49. See the discussion in Chapter 7, Section 4.

[451] Experts conducting EIA on the impacts of projects on Natura 2000 sites must show a high level of competence with respect to nature conservation issues. See Case C-127/02 *Waddenzee* [2004] ECR I-7405, para. 54.

[452] *Pfizer* (n 166), para. 201.

[453] F. Francioni and M. Montini, 'Integration Scientific Evidence in Environmental Law: the International Dimension' in A. Biondi et al. (eds), *Scientific Evidence in the European Environmental Rule-Making* (The Hague: Kluwer Law, 2003) 17.

[454] See the discussion in Section 7.6.

[455] See, inter alia, Case C-269/90 *Technische Universität München* [1991] ECR I-5469

[456] Eg in the calculation of external-cost charges under the Eurovignette Directive Member States are allowed to multiply the values by a factor of up to two in mountain areas. See Annex IIIb.

[457] WHO, JRC, EEA, *Impact of Europe's Changing Climate-2008 Indicator-Based Assessment* (EEA Report, 4/2008); EEA, *The European Environment. State and Outlook 2010* (n 155), 38.

[458] J. Scott, *EU Environmental Law* (London: Longman, 2001), 37.

[459] As far as a cost–benefit analysis is concerned, the General Court considered in *Pfizer* that such an instrument was a particular expression of the principle of proportionality in cases involving risk management. *Pfizer* (n 166), para. 468.

[460] The institutions have made a certain number of commitments as to the *assessment of the impact* of their legislative and policy initiatives. See Commission communication on the Action Plan Simplifying and improving the regulatory environment, COM(2002) 278 final, 7; Commission communication on Implementing the Community Lisbon Programme: A strategy for the simplification of the regulatory environment, COM(2005) 535 final, 10. In accordance with para. 27 of the Interinstitutional Agreement on Better Law-Making ([2003] OJ C381/1), the Commission has to 'take due account in its legislative proposals of their financial or administrative implications, for the Union and the Member States in particular'. Lately, the Commission communication on Smart Regulation in the European Union (COM(2010) 543) makes the commitment that evaluation will become standard practice for legislations subject to modification. This communication suggests that the European Parliament and the Council should, as co-legislators, systematically discuss Commission impact assessments.

[461] P. Ekins and M. MacLeod, 'Conclusions and Recommendations' in M. MacLeod et al. (eds), *Understanding the Costs of Environmental Regulation in Europe* (Cheltenham: Edward Elgar, 2009) 230. Moreover, cost–benefit analysis has been subject to lively criticism in American academic writing to the extent that it is likely to ignore so-called 'incommensurables', ie values which cannot be expressed in financial terms. In fact, while it is possible to calculate with precision the financial losses which result from financial terms. In fact, while it is possible to calculate with precision the financial losses which result from a precautionary measure, the financial benefits for the protection of human health

discretion relating to the means of assessing the economic costs entailed by the implementation of proposed regulatory measures. In this respect, it should be pointed out that the different commitments of the EU institutions offer substantial leeway. Moreover, according to case law, the requirements linked to the protection of human health should undoubtedly be given greater weight than economic considerations.[462]

Fourth, the effectiveness of an environmental protection measure depends not only on the diversity of regional situations but also on the special economic and social nature of certain regions, which leaves scope for some adjustments in the form of temporary exceptions in accordance with Article 192(5) TFEU. Consequently, taking into account economic and social facts may also result in the adoption of specific financial support mechanisms for particular regions.

To sum up, these four requirements are framed in broad terms and, as a matter of practice, they play a subordinate role.[463] Whilst it is obliged within the ambit of its environmental policy to achieve a high level of protection and to apply the various environmental Treaty principles, the EU need only 'take into account' these four criteria.[464] Therefore, the fact that it does not take into account one or more of the criteria does not constitute a sufficient basis for the annulment of the act.

9. Conclusions

It was the aim of this chapter to lay particular emphasis on the real teeth of the objectives and the principles laid down under Article 192(1) and (2) TFEU.

First, the objectives of environmental policy set out in Article 191(1) TFEU have proved to be particularly far-reaching, especially when compared with those of transport policy. They play a key role in justifying Article 192 TFEU as the legal basis for a host of environmental measures. Moreover, the objectives may also be regarded as a way of guiding the Court of Justice in interpreting the provisions of a directive or a regulation if it has been requested to provide an answer to a reference for a preliminary ruling.

Second, the five principles enshrined in Article 191(2) TFEU have a guiding-oriented role not only a theoretical or political one. On the one hand, they enrich the formulation and implementation of environmental law. They can be invoked by the EU institutions as a justification for adopting stringent regulatory regimes. Conversely, they can also be used by the Member States to derogate from the free movement of goods. On the other hand, by more clearly defining the limits within which public administrations exercise their discretionary powers, they provide them with a more coherent orientation and consequently legitimize their actions. Lastly, by freeing courts from the constraints of an overly literal interpretation of texts, they have also an interpretative function. Accordingly, they may play a determinative role by helping courts to understand the specific value of environmental protection measures. All in all, given their mixed policy and legal nature, these principles play a dual role of influencing legal outcomes while preserving policy discretion and thus shifting away from the classical 'rule/principle' divide adopted in the literature on legal theory.[465]

In sharp contrast, the four requirements set out in Article 191(3) TFEU play an ancillary role.

This points to the conclusion that the objectives and the principles play a key role in carving out an environmental general interest. In effect, restrictions brought to basic rights, such as property or economic activities, with a view to protecting the environment can be justified provided, on the one hand, that those restrictions correspond to objectives of general interest and, on the other hand, that they do not constitute an intolerable interference impairing the very substance of the rights guaranteed. With respect to the first condition—restrictions corresponding to objectives of general interest—it is sufficient to observe that the conservation of biodiversity,[466] waste management,[467] water protection,[468] and prevention of climate change[469] have been recognized by the Court of Justice as pursuing an objective of general interest restricting basic rights. As regards the second condition—restrictions do not constitute an intolerable interference impairing the very substance of the rights guaranteed—the preventive and precautionary principles enable the judiciary to endorse a broad interpretation of an array of environmental obligations ranging from waste management to wildlife conservation. As a result, measures impairing fundamental freedoms might be justified in the light of these principles.

put on human life? See F. Ackerman and L. Heinzerling, *Priceless* (New York/London: The New Press, 2004); C. R. Sunstein, *Risk and Reasons* (Cambridge: CUP, 2002).

[462] Case C-183/95 *Affish* [1997] ECR I-4315, para. 43; *Alpharma* (n 341), para. 356; and *Artegodan* (n 107), para. 173. In its communication on the precautionary principle, the Commission acknowledges that protection of health and the environment should be put before economic concerns.

[463] L. Krämer, *EC Environmental Law* (n 180), 29.

[464] In much the same vein, Art. 39(2) TFEU lists the criteria which must be taken into account in the CAP. Thus, CAP obligations have to be read in the light of these criteria. *Milk Marque Ltd and NFU* (n 145), paras 98–9. Similarly, Art. 94 TFEU that requires that 'any measures taken within the framework of the Treaties in respect of transport rates and conditions shall take account of the economic circumstances of

[465] Scotford (n 368), 1–47.

[466] Case C-67/97 *Bluhme* [1998] ECR I-8053, para. 33.

[467] Case C-302/86 *Commission v Denmark* [1988] ECR I-4607, para. 9.

[468] Case C-293/97 *Standley* [1999] ECR I-2603, para. 54.

[469] Case C-379/98 *Preussen Elektra* [2001] ECR I-2099, para. 54.