4

Environmental law obligations relevant to the governance of natural resources

4.1 Introductory remarks

This chapter discusses the role of international environmental law in determining the right of States and peoples to freely dispose of their natural resources. It examines two principal ways in which international environmental law impacts this right. First of all, it examines principles formulated by international environmental law for the exploitation of natural resources and the protection of the environment. Relevant principles include the obligations to conserve and sustainably use natural wealth and resources, to safeguard natural resources for future generations, to prevent damage to the environments of other States, and to adopt a precautionary approach to the protection of the environment and natural resources.[1]

Second, international environmental law contains several 'common regimes' aimed at protecting natural resources or parts of the environment because of the importance they have for several States. The number of States with a stake in a common regime may vary from two, in the case of shared natural resources, to the entire community of States, in the case of world heritage. A general feature of these common regimes is that they impose obligations upon States to protect the interests of the larger community of States. The aim of this chapter is to assess how and to what extent all these obligations under international environmental law qualify the right of States to freely dispose of their natural resources.

One of the principal reasons for examining the principles and regimes discussed in this chapter is the hypothesis that they are relevant not

[1] For different categorisations of the principles of international law, see Atapattu, *Emerging Principles of International Environmental Law*; Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn.; Sands and Peel, *Principles of International Environmental Law*, 3rd edn.; Schrijver, *Sovereignty over Natural Resources*; and Schrijver, 'The Evolution of Sustainable Development in International Law', pp. 221–412.

only to the protection of natural resources and the environment in times of peace, but also relevant in situations of armed conflict. This is discussed in more detail in Chapter 6 of this book, while the current chapter focuses on the content of the obligations arising from these principles and common regimes and their implications for the principle of permanent sovereignty.

Section 4.2 discusses the origins and structure of international environmental law in order to provide the necessary context. Section 4.3 then discusses the relevant principles of international environmental law and their legal status. Section 4.4 discusses several common regimes and the obligations ensuing from them. Finally, Section 4.5 draws some final conclusions about the role of international environmental law and the limits it places on the right of States and peoples to freely dispose of their natural resources.

4.2 Origins and structure of international environmental law

This section briefly introduces international environmental law as a field of international law. International environmental law has some distinctive characteristics, and this section discusses some of them for a proper understanding of this field.

4.2.1 Origins of international environmental law

International environmental law has evolved relatively recently. Although early efforts aimed at the protection of particular ecosystems, such as rivers and forests, can be traced back to the nineteenth century, modern international environmental law originated particularly in the United Nations.[2] In this respect, the United Nations Conference on the Human Environment held in Stockholm in 1972 is usually seen as the catalyst for the development of a body of law pertaining to the protection of the environment.[3]

The principal objective of this modern international environmental law is to protect and conserve the environment for the benefit of present

[2] For a brief outline of the evolution of international environmental law, see Sand, 'The Evolution of International Environmental Law', pp. 29–43; and Sands and Peel, *Principles of International Environmental Law*, 3rd edn., Chap. 2.

[3] See Ragazzi, *The Concept of International Obligations Erga Omnes*, p. 154; and Sand, 'The Evolution of International Environmental Law', pp. 33–4, who emphasises that the Stockholm Conference was the 'culmination of an intense preparatory process'.

and future generations of humanity. The 1972 Stockholm Declaration of the United Nations Conference on the Human Environment rather poetically emphasised the importance of the environment for human life and development by stating that 'Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth', and it added that the environment is 'essential to his well-being and to the enjoyment of basic human rights – even the right to life itself'.[4]

Since the late 1980s, international environmental law has become integrated with international development law. These two fields of law have been connected by the principle of sustainable development, which was defined by the World Commission on Environment and Development, the Brundtland Commission, in its report *Our Common Future* as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[5] The principle of sustainable development evolved to become one of the basic aims of international environmental law.[6] Conversely, environmental protection constitutes an integral part of sustainable development, which also embraces economic and social development.[7] This is especially clear from Principle 4 of the Rio Declaration, which proclaims that '[i]n order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it'.[8]

[4] Declaration of the United Nations Conference on the Human Environment, Stockholm, 16 June 1972, *11 ILM 1416 (1972)*, para. 1 of the preamble.

[5] World Commission on Environment and Development, *Our Common Future*, Oxford: Oxford University Press 1987, p. 8.

[6] Bodansky, Brunnée and Hey even refer to it as 'the organizing principle for international environmental law'. See Bodansky, Brunnée and Hey, 'International Environmental Law: Mapping the Field', p. 15. Sustainable development has also been referred to as a 'meta-principle'. In this respect, see Lowe, 'Sustainable Development and Unsustainable Arguments', p. 31.

[7] In this respect, the Johannesburg Declaration has identified three 'interdependent and mutually reinforcing pillars of sustainable development': 'economic development, social development and environmental protection'. Johannesburg Declaration on Sustainable Development, Annex to the Report of the World Summit on Sustainable Development, A/CONF.199/20, 26 August–4 September 2002, para. 5. In addition, see Sands and Peel, *Principles of International Environmental Law*, 3rd edn., p. 10, who argue that sustainable development law is broader than international environmental law, in that it includes, apart from environmental issues, 'the social and economic dimension of development, the participatory role of major groups, and financial and other means of implementation'.

[8] Rio Declaration on Environment and Development, Rio de Janeiro, 13 June 1992, *31 ILM 874 (1992)*, Principle 4.

The need to strike a balance between economic development and the protection of the environment in order to preserve the long-term development potential of humanity is central to the principle of sustainable development. Arguably, this approach entails not only obligations for States regarding the use of natural resources which directly contribute to development, but also an obligation to conserve particular ecosystems or species because of the role they play in maintaining a balance in nature, which is essential to sustain human life in the long term.[9] This can be achieved by adopting an ecosystem approach to sustainable development. This approach is central to the 1992 Convention on Biological Diversity and can be described as 'a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way'.[10]

During the 1990s and early 2000s the principle of sustainable development was also promoted at a number of important international summits, including the 2000 Millennium World Summit, the 2002 Johannesburg Summit on Sustainable Development, the 2005 World Summit and, most recently, the 2012 Rio+20 Summit on Sustainable Development.[11] These summits have contributed to strengthening the legal status of the principle of sustainable development.

Reference should also be made to the New Delhi Declaration of Principles of International Law Relating to Sustainable Development, adopted by the International Law Association (ILA) in 2002.[12] Although this Declaration is not legally binding in any way, it can be considered to be an authoritative statement regarding the state of the law in relation to sustainable development, as it is based on an extensive study of State practice, judicial decisions and treaty law.[13]

This Declaration identifies seven principles that are considered 'instrumental in pursuing the objective of sustainable development in an effective way'. These are the duty of States to ensure the sustainable use of

[9] This is expressed through the concept of intergenerational equity. See Brown-Weiss, *In Fairness to Future Generations*.

[10] See www.cbd.int/ecosystem/ for more information on the ecosystem approach in relation to the Convention on Biological Diversity.

[11] See Schrijver, 'The Evolution of Sustainable Development in International Law', pp. 221–412. For the Rio+20 Summit, see the outcome document of the 2012 United Nations Conference on Sustainable Development, 'The Future We Want', annexed to UNGA Resolution 66/288 of 11 September 2012.

[12] ILA New Delhi Declaration of Principles of International Law Relating to Sustainable Development, adopted on 2 April 2002, *UN Doc. A/57/329* of 31 August 2002.

[13] See the fifth and final report of the ILA Committee on Legal Aspects of Sustainable Development (2002), the committee which prepared the New Delhi Declaration.

natural resources, the principle of equity and the eradication of poverty, the principle of common but differentiated responsibilities, the principle of the precautionary approach to human health, natural resources and ecosystems, the principle of public participation and access to information and justice, the principle of good governance and the principle of integration and interrelationship, in particular in relation to human rights and social, economic and environmental objectives. Some of these principles are examined in the current chapter, in particular the principle of sustainable use, the principle of equity and the precautionary principle, while others, in particular the principle of public participation and the principle of good governance, were discussed in previous chapters.

4.2.2 Structure of international environmental law

A proper understanding of international environmental law requires a brief introduction to its characteristics. One of the characteristics of international environmental law concerns its creation. In addition to the traditional sources of international law formulated in Article 38 of the ICJ Statute, the concept of 'soft law' is particularly important in international environmental law.[14] Soft law processes play a major role in the development of rules in the field of international environmental law.

The world conferences convened by the UN General Assembly and held in Stockholm in 1972 and in Rio de Janeiro in 1992 were particularly instrumental in this respect. These conferences produced important declarations that have had a great impact on the development of international environmental law. While the character of these declarations is partly declaratory in the sense that they formulate some well-established rules of customary international law, they have also had an important programming function.[15] Many of the principles expressed in the declarations subsequently found their way into international treaties or have crystallised as norms of customary international law.

[14] For discussions on the notion of soft law, see, e.g., Boyle and Chinkin, *The Making of International Law*; Shelton, 'International Law and "Relative Normality",' 141–71; Hillgenberg, 'A Fresh Look at Soft Law', 499–515; Kirton and Trebilcock, 'Hard Choices, Soft Law'; Ellis, 'Shades of Grey', 313–34; and Goldmann, 'We Need to Cut Off the Head of the King', 335–68. For a critical analysis of the notion of soft law, see Klabbers, 'The Redundancy of Soft Law', 167–82; and D'Aspremont, *Formalism and the Sources of International Law*.

[15] For a discussion of these terms and the impact of particular UN resolutions on the formation of international environmental law, see Dupuy, *Droit déclaratoire et droit programmatoire de la coutume sauvage a la 'soft law'*.

Other examples of soft law instruments that have stimulated the development of international environmental law include (nonbinding) decisions taken by the conferences of the parties (COP) in particular treaty regimes. Although COP decisions generally concern the implementation of obligations which are already binding under international treaties, some have also substantively and progressively developed the treaty obligations concerned.[16] In addition, reference can be made to the work of United Nations organs, such as the UN Environment Programme (UNEP), and NGOs such as the International Law Association (ILA), which have formulated important rules and guidelines for States.[17]

Another characteristic of international environmental law is directly related to the object it is protecting. Environmental problems often affect not only the interests of individual States, but also the interests of the larger international community of States. Examples include climate change, atmospheric pollution, pollution of the high seas and overfishing. This is why a relatively large number of environmental obligations either operate *erga omnes partes*, i.e., between the parties to a particular treaty regime, or sometimes even *erga omnes*, i.e., between all States whether or not they are party to a particular treaty.[18]

In other words, such international environmental obligations are characterised by their legal indivisibility, in the sense that they 'simultaneously [bind] each and every State concerned with respect to all the others', at least within the context of particular treaty regimes.[19] Thus with respect

[16] On the role of COP decisions in the development of international environmental law, see Gehring, 'Treaty-Making and Treaty Evolution', pp. 469–97.

[17] Compare the UNEP Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, *17 ILM 1097 (1978)*, discussed in Section 4.4.3, and the ILA New Delhi Declaration of Principles of International Law Relating to Sustainable Development, in *ILA Report of the Seventieth Conference*, New Delhi (2002).

[18] For the distinction between *erga omnes* and reciprocal obligations, see the Case Concerning the Barcelona Traction, Light and Power Company, Limited, Judgment of 5 February 1970, *I.C.J. Reports 1970*, p. 3, para. 33, where the Court stated that 'an essential distinction should be drawn between the obligations of a State towards the international community as a whole, and those arising vis-à-vis another State in the field of diplomatic protection. By their very nature the former are the concern of all States. In view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations erga omnes'.

[19] See the definition of the concept of *erga omnes* obligation by Special Rapporteur Mr. Gaetano Arangio-Ruiz, Fourth Report on State Responsibility, *UN Doc A/CN.4/444 and Add. 1–3*, para. 92, in *Yearbook of the International Law Commission 1992*, Vol. II, Part One, p. 34. See also the commentary of the ILC on Article 48 of the Draft Articles on State Responsibility, which mentions obligations under environmental treaties as an example of obligations *erga omnes partes*. See the Report of the International Law Commission on the work of its fifty-third session, *UN Doc. A/56/10* (2001), p. 126. The concept of *erga*

to these obligations, several or even all States are deemed to have a legal interest in their observance.

This has important implications for the situation of armed conflict, because, arguably, the indivisibility of particular environmental obligations restricts the options for parties to an armed conflict to suspend their treaty obligations. For example, reference can be made to particular obligations for States under the Convention on Biological Diversity, which aims to protect the Earth's biological diversity in the interests of the international community. Article 8(c) of this Convention, for example, prescribes that States '[r]egulate or manage biological resources important for the conservation of biological diversity'.[20] It can be assumed that States are expected to continue to respect this obligation unless they are completely prevented from doing so.

A third characteristic of international environmental law is that environmental obligations can, to a certain extent, be invoked by entities other than States. The evolution of international law in the field of sustainable development has facilitated the interaction between international environmental law and international human rights law. Today international environmental law obligations of States are increasingly invoked by individuals and minority groups claiming a right to a decent, healthy or satisfactory environment, either directly or as part of their rights to life, private life, property or access to information and justice.[21]

Similarly, the emergence of the rights of future generations as part of the concept of sustainable development has also encouraged a human rights approach in international environmental law. The rights of future generations must expressly be taken into account by States as part of their environmental obligations. The fact that representatives of future generations cannot directly enforce their rights at the international level does not preclude the existence of these rights as such. Moreover, as discussed below, the rights of future generations have been expressly addressed by some national courts.

omnes and the resulting indivisibility are not to be confused with the concept of 'integral agreements' discussed in Chapter 6.

[20] However, it must be noted that Article 8 of the Biodiversity Convention formulates a conditional obligation which provides leniency to States that find themselves in a difficult situation. States are only to implement the obligations contained in the provision 'as far as possible and appropriate'.

[21] See, e.g., Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn., pp. 271–87; Sands and Peel, *Principles of International Environmental Law*, 3rd edn., pp. 775–89; Ebeku, 'Constitutional Right to a Healthy Environment and Human Rights Approaches to Environmental Protection in Nigeria', pp. 312–20; Fitzmaurice and Marshall, 'The Human Right to a Clean Environment – Phantom or Reality?' pp. 103–51.

4.3 Principles resulting from international environmental law

International environmental law formulates several principles, some of which lay down obligations for States with regard to the use of natural resources and the environment. This section reviews those principles of international environmental law that have special resonance for the situation of armed conflict. These are the obligations to conserve and sustainably use natural wealth and resources, to promote the equitable allocation of natural resources between generations, to adopt a precautionary approach to the protection of the environment and natural resources, a prohibition against causing extraterritorial damage; and an obligation to cooperate for the protection of the global environment.

4.3.1 The obligation to conserve and sustainably use natural wealth and resources

The obligation to conserve and sustainably use natural wealth and resources, or the principle of sustainable use, seeks to set limits on the ways in which States use the natural wealth and resources situated within their territory and beyond the limits of national jurisdiction, with the aim of safeguarding their capital for the benefit of present and future generations. The obligation is reflected in several of the principles of both the 1972 Stockholm and the 1992 Rio Declaration. Principle 2 of the Stockholm Declaration, for example, provides that '[t]he natural resources of the earth . . . must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate'. In addition, Principle 7 of the Rio Declaration imposes an obligation on States to 'cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem'.

Arguably, the obligation to conserve and use natural wealth and resources in a sustainable way constitutes the core of the concept of sustainable development and of international environmental law in general.[22] This is reflected in the large number of international environmental and other resource-related treaties in which the obligation is enshrined. Some of these indicate specific measures required for the implementation of the obligation, or provide definitions of the terms 'conservation' or 'sustainable use'; others contain more general references to the obligation. For example, more general references are included in the 2006 International

[22] See French, *International Law and Policy of Sustainable Development*, p. 38.

Tropical Timber Agreement, which aims, *inter alia,* to encourage the members of the International Tropical Timber Organization to 'develop national policies aimed at sustainable utilization and conservation of timber producing forests'.[23]

The 1992 Convention on Biological Diversity is an example of a more explicit treaty. It defines the term 'sustainable use' as 'the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations'.[24] In addition, Article 6 of the convention obliges parties to develop or adapt 'national strategies, plans or programmes for the conservation and sustainable use of biological diversity', as well as to 'integrate . . . the conservation and sustainable use of biological diversity into . . . plans, programmes and policies'. In Articles 8 and 9 it also outlines specific measures which parties need to adopt to conserve biological diversity and it contains in Article 10 a provision on the sustainable use of components of biological diversity.

The 1979 Convention on the Conservation of Migratory Species of Wild Animals, although focused mainly on conservation and not so much on sustainable use, also contains specific measures for the implementation of the obligation to conserve and sustainably use natural wealth and resources. Parties to the convention are required to take specific measures to conserve migratory species, especially those which are endangered (listed in Appendix I to the convention) or whose conservation status is unfavourable (listed in Appendix II to the convention).[25] In addition, the convention provides a definition of the term 'conservation status of a migratory species', thus also providing an indirect definition of the term 'conservation'. The conservation status of a migratory species is defined as 'the sum of the influences acting on the migratory species that may affect its long-term distribution and abundance'.[26]

The obligation to conserve and sustainably use natural wealth and resources takes different forms. In the 1971 Ramsar Convention on the Protection of Wetlands, it is expressed in the principle of the 'wise use'

[23] Article 1(m) of the International Tropical Timber Agreement, 27 January 2006.

[24] Article 2 of the Convention on Biological Diversity, Rio de Janeiro, 5 May 1992, *1760 U.N.T.S. 79.*

[25] The convention contains in Article 1(1)(d) and (e) express definitions of the terms 'unfavourable conservation status' and 'endangered'.

[26] Article 1(1)(b) of the Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, *1651 UNTS 333.*

of wetlands and of migratory stocks of waterfowl.[27] The 1973 Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) refers merely to the need to protect endangered species against 'overexploitation'.[28] International freshwater law uses the terms 'equitable and reasonable' as well as 'optimal and sustainable utilization'.[29] Furthermore, in international fisheries law as well as in the law of the sea, the principle of sustainable use takes the form of an obligation to preserve the 'maximum' or 'optimum sustainable yield'.[30]

Although these terms entail specific obligations in the fields in which they operate, they all imply the use of natural resources in such a way and at such a rate that the long-term survival and/or protection of the resources concerned is ensured. Moreover, in some cases, an evolution in the meaning of the terms can be detected. For example, this applies to the terms 'maximum' or 'optimum sustainable yield' in international fisheries law. While the 1958 Fisheries Convention used the term 'optimum sustainable yield' primarily in the context of guaranteeing a continuous and maximum supply of food,[31] the 1995 UN Straddling Fish Stocks Agreement refers to the 'long-term sustainability of straddling fish stocks and highly migratory fish stocks', as well as 'the objective

[27] Articles 3 and 2(6) of the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 2 February 1971, *996 UNTS 245*.

[28] Fourth paragraph of the preamble and Article II of CITES, 3 March 1973, *993 UNTS 243*.

[29] Articles 5(1) and 6(1)(f) of the UN Convention on the Law of the Non-navigational Uses of International Watercourses, 21 May 1997, *36 ILM 700 (1997)*.

[30] See, e.g., the Convention on Fishing and the Conservation of the Living Resources of the High Seas, 29 April 1958, *559 UNTS 285*, Article 1(2) and 2; UN Convention on the Law of the Sea, 10 December 1982, *1833 UNTS 3*, Article 61; United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, *2167 UNTS 88*, Article 5. For more on this topic, see Freestone, Barnes and Ong (eds.), *The Law of the Sea: Progress and Prospects*; Churchill and Lowe, *The Law of the Sea*, and Van der Burgt, *The Contribution of International Fisheries Law to Human Development*, pp. 147–56.

[31] Convention on Fishing and the Conservation of the Living Resources of the High Seas, 29 April 1958, *559 UNTS 285*, Article 1(2) and 2. Article 1(2) of this Convention contains a duty for States 'to adopt . . . such measures . . . as may be necessary for the conservation of the living resources of the high seas', while Article 2 defines the expression 'conservation of the living resources of the high seas' as 'the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products. Conservation programmes should be formulated with a view to securing in the first place a supply of food for human consumption'.

of their optimum utilization' in relation to measures to protect marine ecosystems and the biodiversity of the sea.[32]

The obligation to conserve and to use natural resources in a sustainable way was also recognised in treaties which are not aimed at the protection of specific natural resources. Under the General Agreement on Tariffs in Trade (GATT), which has now become part of the 1994 WTO Agreement, parties can, for example, invoke environmental exceptions to the basic rules of the GATT regarding nondiscrimination between trading partners and between foreign and domestic products. These exceptions concern measures 'necessary to protect human, animal or plant life or health' and measures 'relating to the conservation of exhaustible natural resources'.[33]

The 1994 WTO Agreement also emphasises the relationship between sustainable resource use and global economic growth:

> relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, *while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development*, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.[34]

Finally, the principle of sustainable use also to some extent forms the basis for the notion of 'usufruct' in the international law of armed conflict. The notion of usufruct is central to the exploitation of natural resources in situations of occupation. In this respect, Article 55 of the 1907 Hague Regulations provides that an occupier must, amongst other things, 'safeguard the capital' of forests and agricultural estates, and that he must 'administer them in accordance with the rules of usufruct'. However, it should be noted that this provision only reflects the principle of

[32] United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, *2167 UNTS 88*, Article 5.

[33] See Article XX (b) and (g) of GATT, Annex 1A to the WTO Agreement, adopted on 15 April 1994, *1867 UNTS 187*.

[34] Agreement Establishing the World Trade Organization, adopted on 15 April 1994, *1867 UNTS 154*. Author's emphasis added.

sustainable use to a limited extent. In occupation law the rationale for protecting natural resources is not so much to protect the environment and its natural resources for the benefit of future generations, but rather to preserve the rights of the occupied State and its population to these resources. Therefore, the focus is on protecting property rights rather than on ensuring long-term sustainability.

The obligation to conserve and sustainably use natural wealth and resources has also been appealed to in the case law of international tribunals. Although these cases do not clarify the contents or the legal status of the principle of sustainable use in any more detail, they do confirm the existence of the principle itself. In the *Icelandic Fisheries case*, the International Court of Justice confirmed the existence of an obligation in international fisheries law to conserve the living resources of the sea. The Court considered that

> [i]t is one of the advances in maritime international law, resulting from the intensification of fishing, that the former *laissez-faire* treatment of the living resources of the sea in the high seas has been replaced by a recognition of a duty to have due regard to the rights of other States and the needs of conservation for the benefit of all.[35]

Furthermore, in the *Gabčíkovo–Nagymaros case*, the International Court of Justice pronounced on the need to take into account modern norms and standards related to sustainable development in a paragraph that is often quoted:

> Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind – for present and future generations – of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development.[36]

[35] International Court of Justice, Fisheries Jurisdiction (*United Kingdom* v. *Iceland*), Judgment of 25 July 1974, *I.C.J. Reports 1974*, p. 3, para. 72.

[36] International Court of Justice, Gabčíkovo–Nagymaros Project (*Hungary* v. *Slovakia*), Judgment of 25 September 1997, *I.C.J. Reports 1997*, p. 7, para. 140.

In the *Pulp Mills on the River Uruguay case*, the International Court of Justice interpreted the implications of the obligation of optimum and rational utilisation in freshwater law. In this respect, the Court considered that

> the attainment of optimum and rational utilization requires a balance between the Parties' rights and needs to use the river for economic and commercial activities on the one hand, and the obligation to protect it from any damage to the environment that may be caused by such activities, on the other.[37]

The International Tribunal for the Law of the Sea (ITLOS) pronounced on the issue of sustainable use as well. In the *Southern Bluefin Tuna cases* concerning an experimental fishing programme started by Japan, the Tribunal noted that 'the conservation of the living resources of the sea is an element in the protection and preservation of the marine environment'. It also indicated that 'the parties should in the circumstances act with prudence and caution to ensure that effective conservation measures are taken to prevent serious harm to the stock of southern bluefin tuna' and that provisional measures were necessary in order to 'avert further deterioration of the southern bluefin tuna stock'.[38]

Therefore, in the light of this considerable and constantly growing body of case law and the numerous provisions in treaty law relating to the obligation to conserve and sustainably use natural wealth and resources, it is justified to conclude that States are required under international law to properly manage their own natural wealth and resources and to use with restraint the natural wealth and resources that belong to several or all States, such as the fish in the high seas.[39]

This has several implications for the rights of States relating to the exploitation of their natural resources, both directly regarding the exploitation activities themselves and regarding the effects of these activities on the environment. The principle of sustainable use requires States to use their natural resources in a way and at a rate that allows these natural resources to regenerate, or in the case of nonliving natural resources, to

[37] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, p. 14, para. 175.

[38] International Tribunal for the Law of the Sea, Southern Bluefin Tuna Cases (*New Zealand* v. *Japan*; *Australia* v. *Japan*), Requests for Provisional Measures, Order of 27 August 1999, paras. 70–85.

[39] Furthermore, as discussed in Section 4.3.5, States are under an obligation to cooperate for the conservation of these common resources.

safeguard these natural resources for long-term development. However, at the same time, the principle leaves States with a broad scope to decide what is sustainable and what is not. This is both a strength and a weakness of the principle.

4.3.2 The obligation to safeguard natural resources for future generations

The obligation to safeguard natural resources for future generations is expressed in the principle of equity. This principle, which is firmly established in general international law, has particular resonance in the context of international environmental law. The principle of equity as a principle of international environmental law places a dual responsibility on the present generation to ensure, on one hand, that all people living today have the opportunity to benefit from the natural resources that have been left behind by past generations, and on the other hand, to leave behind for future generations a healthy planet which they can use for their development.[40]

In other words, the principle of equity has two components. The intra-generational component formulates an obligation for the present generation to provide access to the legacy of past generations to its own members. This component of equity is reflected in particular in concepts such as 'optimum utilisation' in the international law of the sea, 'optimal use' and 'differential and more favourable treatment' in international economic law, and 'common but differentiated responsibilities' in international environmental law.

However, the intergenerational component of equity is the more relevant to the current book. It concerns the responsibility of the present generation to safeguard the opportunities of future generations to use natural wealth and resources for their needs and aspirations by protecting the diversity of natural resources, preserving the quality of the planet and maintaining access to the legacy of past generations.[41]

Intergenerational equity is one of the core principles of sustainable development. However, it is often presented as a philosophical or political

[40] On this principle, see, e.g., Brown-Weiss, *In Fairness to Future Generations*; D'Amato, 'Do We Owe a Duty to Future Generations to Preserve the Global Environment?' pp. 190–98; Schrijver, 'After Us, the Deluge?' pp. 59–78; Shelton, 'Equity', pp. 639–62; Fitzmaurice, 'International Protection of the Environment', pp. 186–201; Atapattu, *Emerging Principles of International Environmental Law*, pp. 113–19.

[41] See in particular Brown-Weiss, *In Fairness to Future Generations*.

concept rather than as a legal principle.[42] This may be due partly to some of the inherent difficulties of the principle, which relate to the beneficiaries and addressees of the associated rights and obligations.

The principle of intergenerational equity confers responsibilities on the present generation which may be demanded by future generations. With reference to Parfit's paradox and the chaos theory, it can be argued that the present generation cannot have a responsibility to an undefined group of people whose composition is unclear and may alter as a consequence of the actions taken by the present generation by fulfilling their obligations to future generations.[43] Although effectively refuted by Brown-Weiss, who emphasises that the rights of future generations are not individual rights but rather group rights or '*generational* rights, which must be conceived of in the temporal context of generations',[44] problems with regard to this idea do arise with respect to its implementation. It is for this reason that the principle of intergenerational equity cannot be regarded as a legal principle that formulates concrete obligations for States with regard to future generations. Rather, the principle of intergenerational equity formulates a general responsibility for States to take into account the long-term effects of their actions when they contemplate activities that could have negative effects on the environment or natural resources.

For the purposes of the present book, it is relevant to note the following observation of the Experts Group on Environmental Law of the World Commission on Environment and Development, which establishes an explicit connection between equity and the rights and obligations of parties to an armed conflict:

> the conservation or use of the environment and natural resources for the benefit of present and future generations also implies certain restraints for the parties to an international or non-international armed conflict in that they shall abstain from methods or means of warfare which are intended, or may be expected, to cause widespread, long-lasting or severe damage to the environment.[45]

[42] See, e.g., French, *Law and Policy of Sustainable Development*, p. 28, who distinguishes between equity 'as a recognized legal term', referring to the use of the term in jurisprudence, and its 'political meaning' within the context of the discussion on sustainable development. For philosophical views on the concept of intergenerational equity, see, *inter alia,* Rawls, *A Theory of Justice.*

[43] See, e.g., D'Amato, 'Do We Owe a Duty to Future Generations to Preserve the Global Environment?' pp. 190–98.

[44] Brown-Weiss, 'Our Rights and Obligations to Future Generations for the Environment', p. 205.

[45] Munro and Lammers, *Environmental Protection and Sustainable Development*, p. 45. This issue will be discussed in more detail in Part II of this book.

Although the accuracy of this statement can be questioned from a positivist perspective,[46] it can be argued in more general terms that parties to an armed conflict must take into account the effects of their actions on future generations. This corresponds to the general line of reasoning of the International Court of Justice in its Nuclear Weapons Advisory Opinion. As part of its assessment regarding the legality of the threat or use of nuclear weapons, the Court explicitly took into account the potential effects of nuclear weapons on future generations.[47] Thus the Court recognised that in their decisions and policies, States have to have due regard for the consequences of their actions on future generations. This includes the consequences for future generations resulting from their actions in armed conflict.

Intergenerational equity has been recognised as a guiding principle in several treaties. An early reference to future generations can be found in the 1946 Whaling Convention, which recognises in its preamble 'the interest of the nations of the world in safeguarding for future generations the great natural resources represented by the whale stocks'.[48] Other examples include the 1973 CITES Convention which recognises that 'wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come', the 1992 UN Convention on Climate Change which states that '[t]he Parties should protect the climate system for the benefit of present and future generations of humankind', and the 1992 Biodiversity Convention, which states that parties are '[d]etermined to conserve and sustainably use biological diversity for the benefit of present and future generations'.[49]

[46] The statement uses the language of Articles 35(3) and 55 of Additional Protocol I relating to international armed conflicts, which does not have an equivalent in Additional Protocol II relating to noninternational armed conflicts. These provisions are discussed in more detail in Chapter 6 of this study.

[47] International Court of Justice, Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, 8 July 1996, *I.C.J. Reports 1996*, p. 226, paras. 35 and 36.

[48] First paragraph of the preamble of the International Convention for the Regulation of Whaling, 2 December 1946, *161 UNTS 72*.

[49] See the first paragraph of the preamble of CITES, 3 March 1973, *993 UNTS 243*; Article 3(1) of the UN Framework Convention on Climate Change, 9 May 1992, *1771 U.N.T.S. 107*; and the last paragraph of the preamble of the 1992 Biodiversity Convention, 5 May 1992, *1760 U.N.T.S. 79*. For other references to future generations in treaty law, see the 1979 Convention on the Conservation of Migratory Species of Wild Animals which states in the second paragraph of the preamble that parties are '[a]ware that each generation of man holds the resources of the earth for future generations and has an obligation to ensure that this legacy is conserved and, where utilized, is used wisely'; the fifth paragraph of the preamble of the 1976 ENMOD Convention, which states that the parties realise 'that the

Reference can also be made to the 1972 World Heritage Convention, which aims to preserve parts of the cultural and natural heritage as part of the world heritage of mankind as a whole. Article 4 of this convention formulates an obligation for parties to ensure 'the identification, protection, conservation, presentation and transmission to future generations of the [world] cultural and natural heritage . . . situated on its territory'.[50] In addition to the references in treaty law, the 1972 Stockholm Declaration and the 1992 Rio Declaration also contain explicit references to responsibilities owed to present and future generations.[51]

While the references to intergenerational equity in these treaties serve to emphasise the general responsibility of States with regard to the rights of future generations, some national decisions have actually expressly recognised the rights of future generations. Furthermore, these decisions have identified corresponding obligations for national government authorities. In the often cited *Minors Oposa case*, the Philippine Supreme Court accorded legal standing to children, as well as unborn generations, to claim a constitutional right to a 'balanced and healthful ecology'. The Court explicitly recognised the obligation for the government to guarantee that right to future generations.[52] Reference can also be made to the national case of the *Fuel Retailers Association of Southern Africa* v.

use of environmental modification techniques for peaceful purposes could improve the interrelationship of man and nature and contribute to the preservation and improvement of the environment for the benefit of present and future generations'; Article 4 of the 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, adopted on 18 December 1979, *1363 UNTS 21*, which states that in the exploration and use of the Moon and other celestial bodies '[d]ue regard shall be paid to the interests of present and future generations'; and the fifth paragraph of the preamble of the 1992 UN Convention on the Law of the Non-navigational Uses of International Watercourses, which expresses 'the conviction that a framework convention will ensure the utilisation, development, conservation, management and protection of international watercourses and the promotion of the optimal and sustainable utilisation thereof for present and future generations'.

[50] It is further interesting to note that UNESCO's General Conference has adopted a Declaration on the Responsibilities of the Present Generations towards Future Generations in 1997, which outlines, *inter alia,* the environmental responsibilities of the present generation towards future generations. See UNESCO, *Records of the General Conference*, Twenty-Ninth Session, Paris, 21 October to 12 November 1997, Vol. 1, Resolutions, p. 69.

[51] Principle 1 of the Stockholm Declaration provides that 'Man . . . bears a solemn responsibility to protect and improve the environment for present and future generations', while Principle 2 states that '[t]he natural resources of the earth . . . must be safeguarded for the benefit of present and future generations'; Principle 3 of the Rio Declaration states that '[t]he right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations'.

[52] *Minors Oposa* v. *Secretary of the Department of Environmental and Natural Resources*, The Supreme Court of the Philippines, Judgment of July 1993.

the Director-General, in which the South African Constitutional Court considered that '[t]he present generation holds the earth in trust for the next generation. This trusteeship position carries with it the responsibility to look after the environment. It is the duty of the Court to ensure that this responsibility is carried out [by the responsible authorities]'.[53] Nevertheless, these cases continue to be exceptional.

The principle of intergenerational equity has therefore been recognised in international law to some extent, in particular in treaty law, where it appears as a guiding rather than a legal principle.[54] Although national judicial decisions show that the principle can entail concrete legal obligations for States as well, it is generally not considered to do so. However, the principle of intergenerational equity has also been expressed in other concepts. It is inextricably linked with and may be considered to be one of the principal rationales behind the obligation of conservation and sustainable use of natural wealth and resources.[55]

4.3.3 The obligation to prevent damage to the environment of other States

The obligation of States to prevent damage to the environment of other States and of areas beyond national jurisdiction can be regarded as one of the fundamental principles of international environmental law.[56] Based on the general rule referred to in the *Corfu Channel Case* that States have an obligation not to use their territory in a way contrary to the rights of other States, the obligation to prevent damage to the environment of other

[53] *Fuel Retailers Association of Southern Africa* v. *Director-General: Environmental Management Department of Agriculture, Conservation and Environment, Mpumalanga Province, and Others*, 2007 (6) SA 4 (CC), 2007, (10) BCLR 1059 (CC), para. 102, quoted in the third report of the International Committee on International Law on Sustainable Development of the International Law Association, *Report of the Seventy-Third Conference of the International Law Association*, Rio de Janeiro (2008), p. 904. See also the final report of the International Committee on International Law on Sustainable Development of the International Law Association, Sofia (2012), pp. 14–17.

[54] A recent report of the UN Secretary-General on 'Intergenerational Solidarity and the Needs of Future Generations' illustrates this. While the report examines the principle of intergenerational equity in depth, it does not refer to it as a legal principle. See Report of the Secretary-General, 'Intergenerational Solidarity and the Needs of Future Generations', *UN Doc. A/68/322*, 15 August 2013.

[55] In addition, see Schrijver, 'After Us, the Deluge?' pp. 59–78.

[56] See Bodansky, Brunnée and Hey, *The Oxford Handbook of International Environmental Law*, p. 9, who refer to the obligation as a 'cornerstone of international environmental law'. On this topic in more detail, see, e.g., Hanqin, *Transboundary Damage in International Law*; and Handl, 'Transboundary Impacts', pp. 531–49.

States and beyond national jurisdiction sets limits on the sovereignty of a State regarding the use of its territory in order to protect the sovereignty of other States.[57]

The obligation was formulated for the first time in the 1941 *Trail Smelter Arbitration case* concerning transboundary air pollution. In this case, the arbitral tribunal determined in its final judgment that

> under the principles of international law . . . no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.[58]

Gradually the nature of the obligation shifted from being purely bilateral into having a more general application, extending not only to the territory of other States but also to areas beyond national jurisdiction.[59] It is in this form that the obligation was inserted in Principle 21 of the 1972 Stockholm Declaration, which formulates a responsibility for States 'to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states *or of areas beyond the limits of national jurisdiction*'.[60]

This 'Principle 21 obligation', as it is often referred to in the literature, has since been recognised in several international conventions, including the conventions on climate change, biodiversity and desertification, and was restated in Principle 2 of the 1992 Rio Declaration.[61] In addition, the existence of the obligation was affirmed in the case law of several

[57] International Court of Justice, Corfu Channel (*United Kingdom* v. *Albania*), Merits, Judgment of 9 April 1949, *I.C.J. Reports 1949*, p. 22. See also Handl, 'Transboundary Impacts', p. 533.

[58] Trail Smelter Arbitration (*United States* v. *Canada*), Judgment of 11 March 1941, *Reports of International Arbitral Awards* Vol. III, United Nations (2006), p. 1965.

[59] See Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn., p. 145.

[60] Principle 21 of the Declaration of the United Nations Conference on the Human Environment, Stockholm, 16 June 1972, *11 ILM 1416 (1972)*. Author's emphasis added.

[61] See the preamble of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 29 December 1972, *1046 UNTS 120*; Article 194(2) of the United Nations Convention on the Law of the Sea, 10 December 1982, *1833 UNTS 3*; Article 3 of the Convention on Biological Diversity, 5 May 1992, *1760 U.N.T.S. 79*; paragraph 8 of the preamble of the UN Framework Convention on Climate Change, 9 May 1992, *1771 U.N.T.S. 107*; paragraph 15 of the preamble of the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 17 June 1994, *1954 U.N.T.S. 3*; Article 7 of the UN Convention on the Law of the Non-navigational Uses of International Watercourses, 21 May 1997, *36 ILM 700 (1997);* Principle 2 of the Rio Declaration on Environment and Development, 13 June 1992, *31 ILM 874 (1992)*.

international tribunals, including the International Court of Justice and tribunals acting under the auspices of the Permanent Court of Arbitration (PCA).

In its *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, the International Court of Justice expressly affirmed 'the existence of a general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control' and stated that this obligation 'is now part of the corpus of international law relating to the environment'.[62] As Duncan French noted, the Court therefore confirmed the autonomous status of this rule in international environmental law.[63]

In two subsequent contentious cases – the 1997 *Gabčíkovo–Nagymaros case* and the 2010 *Pulp Mills on the River Uruguay case* – the Court took the opportunity to reaffirm its position.[64] In the *Iron Rhine Arbitration*, the arbitral tribunal operating under the auspices of the PCA also confirmed this obligation and added that it applies equally to activities undertaken by a State on the territory of another State in the exercise of rights guaranteed by treaty.[65]

As may be inferred from the text of Principle 21, which mentions environmental damage resulting from 'activities within [the] jurisdiction *or* control' of States,[66] the obligation to prevent extraterritorial damage applies both to extraterritorial damage caused by activities undertaken

[62] International Court of Justice, Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, *I.C.J. Reports 1996*, p. 66, para. 29. For a more detailed analysis of the court's judgment in this respect, see the contributions of Weiss and Momtaz to Boisson de Chazournes and Sands, *International Law, the International Court of Justice and Nuclear Weapons*. It should be noted that there are some differences between the obligation as formulated by the court, on one hand, and Principle 21, on the other. These relate to the following points. On the one hand, the court constrains the obligation to activities which fall both within the jurisdiction and the control of States. On the other hand, the court extends the obligation to areas beyond national control instead of jurisdiction. Moreover, the court formulates a more general obligation to respect the environment instead of an obligation not to cause damage. See Brown Weiss, 'Opening the Door to the Environment and to Future Generations', p. 340.

[63] French, 'A Reappraisal of Sovereignty in the Light of Global Environmental Concerns', p. 385.

[64] International Court of Justice, Gabčíkovo–Nagymaros Project (*Hungary* v. *Slovakia*), Judgment, *I.C.J. Reports 1997*, p. 7, para. 53 and International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), *I.C.J. Reports 2010*, para. 193.

[65] Permanent Court of Arbitration, Arbitration Regarding the Iron Rhine ('IJzeren Rijn') Railway (between the Kingdom of Belgium and the Kingdom of the Netherlands), Award of 24 May 2005, paras. 222–4.

[66] Author's emphasis added.

within the national jurisdiction of States and to activities undertaken by them outside their jurisdiction but within their control. As Louis Sohn noted, this implies that the obligation 'applies clearly to citizens of a state, to ships flying its flag, and perhaps even to corporations incorporated in its territory'.[67]

Furthermore, and highly relevant to the current book, it can be argued that the obligation applies to a State which exercises *de facto* control on (part of) the territory of another State as well. This can be inferred from the Commentary of the ILC to its Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, which noted that '[t]he function of the concept of "control" in international law is to attach certain legal consequences to a State whose jurisdiction over certain activities or events is not recognised by international law; it covers situations in which a State is exercising de facto jurisdiction, even though it lacks jurisdiction de jure'.[68] If this is a correct interpretation of the term 'control', it implies that the obligation to prevent damage to the environment of other States applies in situations of occupation.[69]

The duty of prevention is central to the obligation to prevent damage to the environment of other States and to areas beyond national jurisdiction.[70] This duty of prevention, sometimes also designated as the principle of prevention, is referred to in several cases relating to the prohibition against causing transboundary environmental damage.

In the *Gabčíkovo–Nagymaros case*, for example, the International Court of Justice determined that 'in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage'.[71] In addition, in the Pulp Mills case, the Court even referred to the customary nature of 'the principle of prevention'. In this regard, the Court pointed out that 'the principle of prevention, as a customary rule, has its origins in the due

[67] Sohn, 'The Stockholm Declaration on the Human Environment', p. 493.

[68] Commentary of the ILC on its Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, *Yearbook of the International Law Commission*, Vol. II, Part Two (2001), p. 151, para. 12.

[69] This was expressly contemplated by the ILC, which referred to cases of 'unlawful intervention, occupation and unlawful annexation'. Ibid.

[70] According to Handl, 'the obligation of prevention presents itself as an essential aspect of the obligation not to cause significant harm to the environment beyond national jurisdiction or control'. Handl, 'Transboundary Impacts', p. 539.

[71] International Court of Justice, Gabčíkovo–Nagymaros Project (*Hungary* v. *Slovakia*), Judgment, *I.C.J. Reports 1997*, p. 78, para. 140.

diligence that is required of a State in its territory'.[72] Similarly, in the *Iron Rhine Arbitration*, the arbitral tribunal determined that 'where development may cause significant harm to the environment there is a duty to prevent, or at least mitigate, such harm. This duty, in the opinion of the Tribunal, has now become a principle of general international law'.[73]

It should be noted that the obligation to prevent transboundary environmental damage does not imply a complete prohibition against States engaging in activities that cause transboundary damage. Although not expressly indicated in Principle 21, it is generally acknowledged that the obligation of States only concerns the prevention of damage that exceeds a certain minimum threshold.[74] This threshold is usually considered to be damage that may be designated as 'significant'. According to the ILC commentary to the Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, this may be defined as 'something more than "detectable", but need not be at the level of "serious" or "substantial"'.[75]

Furthermore, the obligation to prevent extraterritorial damage must be interpreted by States as an obligation to exercise due diligence with regard to activities undertaken by them.[76] In general, this implies that States are to 'use all the means at [their] disposal' or 'to take all appropriate measures' to prevent transboundary damage.[77] For this purpose, States

[72] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), *I.C.J. Reports 2010*, para. 101.

[73] Permanent Court of Arbitration, Arbitration Regarding the Iron Rhine ('IJzeren Rijn') Railway (between the Kingdom of Belgium and the Kingdom of the Netherlands), Award of 24 May 2005, para. 59.

[74] See Trouwborst, *Precautionary Rights and Duties of States*, p. 44; see also Brunnée, 'Common Areas, Common Heritage and Common Concern', p. 552.

[75] Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, *Yearbook of the International Law Commission*, vol. II, Part Two (2001), p. 152. See also Article 7 of the UN Convention on the Law of the Non-navigational Uses of International Watercourses, 21 May 1997, *36 ILM 700 (1997)*; and the judgment of the International Court of Justice in the Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), *I.C.J. Reports 2010*, para. 101, where the court states that a State 'is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing *significant* damage to the environment of another State'. Author's emphasis added.

[76] See Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn., p. 147. Also see Hanqin, *Transboundary Damage in International Law*, pp. 162–87.

[77] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, para. 101; and Article 3 of the ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities. See also Article 194(2) of the United Nations Convention on the Law of the Sea, 10 December 1982, *1833 UNTS 3*, which indicates an obligation for States to 'take

are not only to adopt appropriate rules and procedures, but also to take on 'a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators'.[78]

Arguably, such an obligation to act with vigilance is also relevant for the situation of armed conflict, when armed groups operate in territory under the control of a foreign State. In the *Congo–Uganda case*, the International Court of Justice determined the existence of an obligation of vigilance incumbent upon Uganda in territories occupied by that State. According to the Court, this obligation of vigilance implied a duty for the occupant to prevent acts of looting and plundering of natural resources by armed groups acting on their own account.[79] Arguably, the obligation for States to prevent damage to the environment of other States therefore also includes a duty to prevent environmental damage caused by armed groups in territories under their control.

In addition to these obligations, the due diligence obligation entails several other procedural obligations, including an obligation to notify and to inform the affected States of the potential damage, an obligation to consult with them on actions to be taken and an obligation to conduct a so-called environmental impact assessment (EIA) in order to determine the risk and extent of the damage.[80]

These obligations are dealt with in Principles 17 and 19 of the 1992 Rio Declaration. Principle 17 states that '[e]nvironmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment', while Principle 19 formulates a duty for States to 'provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary

all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment'.

[78] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, para. 197. See also Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn., pp. 147–50. See also Hanqin, *Transboundary Damage in International Law*, p. 163, who refers to an obligation to exercise 'good government', that is, 'evincing responsibility for its international obligation to exercise proper care so as not to cause such effects or to prevent others in its territory from causing such effects'.

[79] International Court of Justice, Case Concerning Armed Activities on the Territory of the Congo (*Democratic Republic of the Cong*o v. *Uganda*), Judgment of 19 December 2005, *I.C.J. Reports 2005*, p. 168, para. 179. This issue is discussed in more detail in the second part of this study.

[80] For more details on these procedural obligations, see Hanqin, *Transboundary Damage in International Law*, pp. 165–78.

environmental effect and shall consult with those States at an early stage and in good faith'.

The obligation to notify and to inform other States has also been recognised in treaty law, *inter alia,* in Article 14(1)(d) of the 1992 Convention on Biological Diversity, and in the case law of international tribunals, including the judgment of the International Court of Justice in the *Pulp Mills case*, as well as the order of ITLOS in the Land Reclamation case for provisional measures to be taken.[81] The obligation to conduct an EIA to prevent transboundary damage to the environment has similarly attained a strong status in international law. It has been inserted in several treaties, including Article 4(2)(f) and Annex V(A) of the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Article 206 of UNCLOS and Article 12 of the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses.[82]

Moreover, in its judgment in the *Pulp Mills case*, the International Court of Justice even went so far as to state that

> the obligation to protect and preserve [the aquatic environment] has to be interpreted in accordance with a practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works.[83]

[81] See International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, paras. 67–158 concerning the procedural obligations of the parties to the dispute; and International Tribunal for the Law of the Sea, Case Concerning Land Reclamation by Singapore in and around the Straits of Johor (*Malaysia* v. *Singapore*), Order of 8 October 2003, para. 99. In general on the topic of environmental information and related duties, see Sands and Peel, *Principles of International Environmental Law*, 3rd edn., pp. 624–64.

[82] See the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 22 March 1989, *1673 U.N.T.S. 126*; the UN Convention on the Law of the Non-navigational Uses of International Watercourses, 21 May 1997, *36 I.L.M. 715 (1997)*; and the UN Convention on the Law of the Sea, 10 December 1982, *1833 U.N.T.S. 3*. For other examples, also see Sands and Peel, *Principles of International Environmental Law*, 3rd edn., pp. 601–23.

[83] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), *I.C.J. Reports 2010*, para. 204.

As the obligation to conduct an EIA is not aimed specifically at preventing environmental damage in a transboundary context, it is discussed at greater length in the following section dealing with the obligation to adopt a precautionary approach to protect the environment and natural resources.

In conclusion, for the purposes of the present book, it is possible to identify three different situations in which the obligation to prevent harm to territories outside national jurisdiction or control entails specific responsibilities for States. First, the obligation is relevant for activities relating to resource exploitation which a State undertakes within its own jurisdiction and which result in transboundary damage, such as the pollution of an international river by chemical substances used for the extraction of minerals.

Second, the obligation applies to the situation in which a State exploits natural resources outside its jurisdiction but within its control, for example, when a State exploits the natural resources of another State over whose territory it exercises *de facto* control, including the situation in which it has occupied that territory. Moreover, in situations of occupation, the obligation of a State to prevent damage to the environment of other States includes an obligation to prevent other actors, including armed groups, from causing such damage.

The third situation in which the obligation becomes relevant is in the context of the exploitation of natural resources shared by two or more States, so-called shared or transboundary natural resources. Natural resources such as forests, oil fields and natural gas deposits, located on the border between two or more States, are particularly important in this respect.[84] In principle, a State is liable with respect to its neighbouring State(s) for damage caused to the shared resource either through its own activities or through the activities of private parties operating from within its jurisdiction.

4.3.4 The obligation to adopt a precautionary approach to protect the environment and natural resources

The obligation to prevent damage to the environment is also expressed in the precautionary principle, which requires States to act with caution, to prevent damage not only to the territory of other States, but also to

[84] For the rules relating to the management of shared natural resources, see Section 4.4.3 of this chapter.

their own domestic environment.[85] At the core of this principle – which is also referred to as an 'approach' by States preferring more flexibility, in particular the United States[86] – lies the need to anticipate environmental damage, even in the face of scientific uncertainty.[87]

The precautionary principle requires States, '[w]here there are threats of serious or irreversible damage [not to use] lack of full scientific certainty . . . as a reason for postponing cost-effective measures to prevent environmental degradation'.[88] In other words, if there are indications that particular activities or policies could cause severe damage to the environment, the precautionary principle requires States to take measures to prevent the damage, even if the scientific evidence does not make it possible to identify the precise risks concerned.

In this way the principle extends the obligation of States to use their natural resources in a sustainable way, in the sense that the precautionary principle requires States to take into account the risks involved in the exploitation of their natural wealth and resources.[89] Therefore, the principle significantly extends the standard of care expected of States when undertaking activities that could have a negative impact on the environment. More specifically, the precautionary principle extends the duty of prevention to situations of scientific uncertainty.[90]

At the same time, the principle is in some ways more restrictive than the principle of prevention. While the principle of prevention applies to 'significant' damage, the precautionary principle sets a higher

[85] See Schrijver, 'The Status of the Precautionary Principle in International Law and Its Application and Interpretation in International Litigation', pp. 241–53; Sands and Peel, *Principles of International Environmental Law*, 3rd edn., pp. 217–28; Handl, 'Transboundary Impacts', pp. 539; Kiss and Shelton, *Guide to International Environmental Law*, pp. 90–94.

[86] See Schrijver, 'The Status of the Precautionary Principle in International Law and Its Application and Interpretation in International Litigation', p. 243.

[87] Ibid.

[88] Principle 15 of the Rio Declaration on Environment and Development. On the precautionary principle, see in general Trouwborst, *Precautionary Rights and Duties of States*; Trouwborst, *Evolution and Status of the Precautionary Principle in International Law*; Schrijver, 'The Status of the Precautionary Principle in International Law and Its Application and Interpretation in International Litigation', pp. 241–53; Freestone and Hey, *The Precautionary Principle and International Law*.

[89] In this respect, also see Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn., p. 199, who argue that '[t]he precautionary principle, endorsed by Principle 15 of the Rio Declaration is also an important element of sustainable utilization, because it addresses the key question of uncertainty in the prediction of environmental effects'.

[90] In this respect, Kiss and Shelton argue that 'the precautionary principle can be considered as the most developed form of prevention that remains the general basis for environmental law'. Kiss and Shelton, *Guide to International Environmental Law*, p. 95.

standard. It applies only to situations where the potential damage is either 'serious' or 'irreversible'. In addition, precautionary action is required only when the measures to be taken are cost-effective and is dependent on the respective capabilities of States.[91] In a way, these additional requirements are understandable, as the element of scientific uncertainty makes it more difficult to assess the risks involved in the proposed activities.

The precautionary principle has found recognition in several international environmental conventions, covering such diverse fields as the international law for the protection of the ozone layer, biodiversity and the climate system, as well as freshwater law and fisheries law.[92] Precautionary considerations underlie many of these conventions and constitute a basis for action. This can be illustrated with reference to the legal regime to address climate change. Even though the 1992 Climate Change Convention notes in its preamble 'that there are many uncertainties in predictions of climate change', several parties to this Convention have agreed to take concrete measures to reduce the emission of greenhouse gases under the 1997 Kyoto Protocol.

In most environmental conventions the threshold for the application of the precautionary principle is serious or irreversible damage. Examples of conventions that set a lower threshold include the 1992 Biodiversity Convention which calls for precautionary action when there is a risk of

[91] For an analysis of the relationship between the precautionary principle and socioeconomic interests, including a detailed account of the ongoing debate on this issue, see Trouwborst, *Precautionary Rights and Duties of States*, pp. 229–81.

[92] See Article 3(3) of the 1992 UN Framework Convention on Climate Change, 9 May 1992, *1771 U.N.T.S.107*; paragraph 9 of the preamble to the 1992 Biodiversity Convention, 5 May 1992, *1760 U.N.T.S. 79*; Articles 1, 10.6 and 11.8 of the 2000 Cartagena Protocol on Biosafety, 29 January 2000, *2226 U.N.T.S. 208*; paragraph 4 of the preamble to the 2010 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, 29 October 2010; 2(5)(a) of the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992, *1936 U.N.T.S. 269*; Articles 5(c) and 6 of the 1995 United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, *2167 U.N.T.S. 88*; and Paragraph 8 of the preamble, Articles 1 and 8(9) of the 2001 Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, *2256 UNTS 119*. Precautionary language can also be discerned in older legal instruments, including paragraph 5 of the preamble of the 1985 Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, *1513 U.N.T.S. 323*; paragraph 8 of the preamble to the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987 (as amended in 1992), *26 ILM 1550 (1987)*; and Article IV of the 1968 African Convention on the Conservation of Nature and Natural Resources (revised 11 July 2003).

'significant reduction or loss of biological diversity' and its 2000 Cartagena Protocol on Biosafety which refers only to 'adverse effects'.[93]

Apart from these environmental treaties, elements of the precautionary principle can also be found in treaties in other fields of international law. UNCLOS Article 206 provides, for example, that States must assess the potential effects of planned activities under their jurisdiction or control when they have '*reasonable* grounds for believing' that such activities '*may* cause substantial pollution of or significant and harmful changes to the marine environment'.[94] Furthermore, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), one of the treaties of the World Trade Organisation (WTO), also contains some references to precaution, in particular in Article 5.7, which permits members of the WTO to provisionally adopt measures to protect human, animal or plant life or health '[i]n cases where relevant scientific evidence is insufficient'.[95]

The concept of precaution is also found in IHL. In addition to provisions relating to precautions in situations of armed conflict, reference can be made to the environmental provisions of Additional Protocol I to the 1949 Geneva Conventions relating to the protection of victims of international armed conflicts. Both Articles 35(3) and 55 of Additional Protocol I prohibit parties to an armed conflict from employing 'methods or means of warfare which are intended, *or may be expected*, to cause widespread, long-term and severe damage to the natural environment'.[96] The more

[93] See paragraph 9 of the Preamble to the Biodiversity Convention and Article 1 of the Cartagena Protocol on Biosafety.

[94] Author's emphasis added.

[95] See Article 5.7 of the Agreement on the Application of Sanitary and Phytosanitary Measures, 15 December 1993, *1867 UNTS 154*. In the EC–Hormones case, the WTO Panel confirmed that 'the precautionary principle has been incorporated and given a specific meaning in Article 5.7 of the SPS Agreement'. See EC Measures Concerning Meat and Meat Products (Hormones) – Complaint by the United States – Report of the Panel, *Doc. WT/DS26/R/USA*, 18 August 1997. For a more detailed analysis of the role of the precautionary principle in WTO law, see Gehring and Cordonnier-Segger, *Precaution in World Trade Law*.

[96] Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), Geneva, 8 June 1977, *1125 UNTS 3*. Author's emphasis added. It may be noted that IHL also contains a principle of precaution, but this principle has a meaning which is distinct from the precautionary principle discussed in this section. The IHL principle of precaution sees to the obligation of parties to an armed conflict to take constant care during military operations to protect the civilian population as far as possible from (the effects of) an attack. On this subject, see Kalshoven and Zegveld, *Constraints on the Waging of War*, 3rd edn., pp. 107–11.

restrictive approach that emerges from these provisions reflects battlefield practice and, more specifically, the need to give clear instructions to the military officers who make the decisions in the field.

Despite the fact that the principle is fairly firmly rooted in international environmental law, international courts have so far been hesitant to expressly apply the precautionary principle. The International Court of Justice, for example, could have taken the opportunity to pronounce on the principle in two cases relating to the management of shared watercourses. Both cases involved disputes regarding projects which could have affected the aquatic ecosystem of the river. However, in both cases the Court relied on the general obligation of prevention, without clarifying whether this obligation could entail precautionary action.

In the *case concerning the Gabčíkovo–Nagymaros Project*, the Court determined that 'in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage'.[97] However, the Court did not pronounce on the standards that parties should adopt in this respect. Instead, the Court insisted on the obligation for the parties to the dispute to look afresh at the matter and to negotiate with a view to finding a solution to the problem. As part of this obligation to negotiate, the Court stressed that parties must take into account modern norms and standards derived from the concept of sustainable development, but left it to the parties to decide which standards to apply.[98]

Similarly, in the *Pulp Mills case*, the International Court of Justice relied entirely on the 'principle of prevention, as a customary rule', interpreted as an obligation for States to stop their activities from causing damage to the territory of other States.[99] Moreover, although the Court did acknowledge that 'a precautionary approach may be relevant in the interpretation and application of the Statute' – the principal legal instrument referred to by the Court in the case – it did so only because both parties to the dispute agreed that the instrument itself adopted a precautionary approach.[100]

Arguably, the Court's hesitance to expressly rely on the precautionary principle in these cases can be explained with reference to the subject

[97] International Court of Justice, Gabčíkovo–Nagymaros Project (*Hungary* v. *Slovakia*), Judgment of 25 September 1997, *I.C.J. Reports 1997*, p. 7, para. 140.

[98] Ibid.

[99] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, para. 101.

[100] Ibid., paras. 160–64.

matter of the disputes. Both cases involved a dispute involving a shared natural resource and the obligation to prevent extraterritorial damage to the environment of other States applies to this. As explained earlier, this obligation has a firm status in international law, while the precautionary principle is still controversial. Generally, the Court adopts a conservative approach, meaning that it only embraces principles that are generally accepted by States. In these cases, the Court had such a principle at its disposal, i.e., the principle of prevention, interpreted as an obligation not to cause extraterritorial damage to the environment of other States. Therefore, the Court arguably did not feel the need to pronounce on the status or applicability of the precautionary principle to these disputes.

While the International Court of Justice was able to settle the disputes brought before it without pronouncing on the precautionary principle, the WTO dispute settlement mechanism was expressly called upon to apply the precautionary principle in two cases brought before it. In the *EC–Hormones case* the European Communities relied on the precautionary principle as a general customary rule of international law, or at least as a general principle of international law, in order to introduce an import ban on meat treated with hormones from the United States and Canada. Both the Panel and the Appellate Body confirmed that the precautionary principle is reflected in the SPS Agreement, in particular in Article 5.7 concerning the right of States to provisionally adopt sanitary and phytosanitary measures on the basis of available pertinent information. Moreover, the Appellate Body concluded that the precautionary principle is also reflected in the sixth paragraph of the preamble of the APS Agreement, as well as in its Article 3.3, which 'explicitly recognize the right of Members to establish their own appropriate level of sanitary protection, which level may be higher (i.e., more cautious) than that implied in existing international standards, guidelines and recommendations'.[101]

However, the Appellate Body did not accept the contention of the European Communities that other provisions of the SPS Agreement – i.e., concerning the assessment of risks – must be interpreted in light of the precautionary principle, because, in the view of the Appellate Body, the precautionary principle was not part of the general principles of

[101] EC Measures Concerning Meat and Meat Products (Hormones) – Complaint by the United States – Report of the Appellate Body, *Doc. WT/DS26/R/USA*, 16 January 1998, para. 124.

law and 'at least outside the field of international environmental law, still awaits authoritative formulation as a customary principle of international law'.[102] This was the point of view of the Appellate Body in 1998.

In 2006, in the *EC–Biotech case* the Panel gave ample consideration to the contention of the European Communities that the precautionary principle had '"by now" become a fully-fledged and general principle of international law'.[103] Nevertheless, the Panel still did not find sufficient evidence to conclude that the status of the precautionary principle had changed since the decision of the Appellate Body in the *EC–Hormones case*. Therefore, it decided to act with prudence and not to take a stand on this complex issue.[104]

Finally, ITLOS was also called upon to apply the precautionary principle in three cases relating to the effects of activities on the marine environment.[105] ITLOS did not explicitly pronounce on the status of the precautionary principle in any of these cases. However, it did refer to 'prudence and caution' as a legal basis for ordering precautionary measures.[106]

In the *Southern Bluefin Tuna cases*, the decision of ITLOS to impose provisional measures on the parties to the dispute in order 'to preserve the rights of the parties and to avert further deterioration of the southern bluefin tuna stock' was based on the existence of scientific uncertainty regarding measures to be taken to conserve the stock of southern bluefin

[102] Ibid., para. 123. The Appellate Body refers more specifically to the rules for treaty interpretation as incorporated in Articles 31 and 32 of the Vienna Convention on the Law of Treaties. In this regard, Article 31(3)(c) stipulates that 'any relevant rules of international law applicable between the parties' should be taken into account when interpreting the treaty. However, according to the Appellate body, it is far from clear that the precautionary principle constitutes a principle of general or customary international law and that it thus constitutes such 'a rule of international law'.

[103] EC – Approval and Marketing of Biotech Products, Panel Reports, *Docs. WT/DS/291/R*, *WT/DS/292/R*, *WT/DS/293/R*, 29 September 2006, para. 786.

[104] Ibid., para. 789.

[105] These are the Southern Bluefin Tuna cases (*New Zealand* v. *Japan*; *Australia* v. *Japan*), Request for Provisional Measures, Order of 27 August 1999; the Mox Plant Case (*Ireland* v. *United Kingdom*), Request for Provisional Measures, Order of 3 December 2001; and the Case Concerning Land Reclamation by Singapore In and Around the Straits of Johor (*Malaysia* v. *Singapore*), Request for Provisional Measures, Order of 8 October 2003.

[106] See the Southern Bluefin Tuna Cases, para. 77; the Mox Plant case, para. 84; and the Land Reclamation case, para. 99. In its Advisory Opinion on Deep Seabed Mining, ITLOS explicitly recognised that it had applied a precautionary approach in these cases. See International Tribunal for the Law of the Sea, Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the Area, Advisory Opinion, 1 February 2011, para. 132.

tuna.[107] In addition, in the *Mox Plant case*, the tribunal used 'prudence and caution' as a legal basis for imposing an obligation on parties to exchange information concerning risks or effects from the operation of a radioactive plant.[108] Finally, in the case concerning the Straits of Johor, ITLOS itself advocated a broader application of the preventive approach when it considered that 'given the *possible* implications of land reclamation on the marine environment, prudence and caution require that Malaysia and Singapore establish mechanisms for exchanging information and assessing the risks or effects of land reclamation works and devising ways to deal with them in the areas concerned'.[109]

Although these judicial decisions demonstrate that international courts are hesitant to apply the precautionary principle *expressis verbis*, the decisions also demonstrate a general willingness of courts to apply precautionary measures. The reliance of ITLOS on 'prudence and caution', as well as the pronouncements of the WTO dispute settlement mechanism on the role of precaution in WTO law, attests to this.

Furthermore, as referred to in the previous section, the International Court of Justice considered in the *Pulp Mills case* that parties 'must, for the purposes of protecting and preserving the aquatic environment with respect to activities which may be liable to cause transboundary harm, carry out an environmental impact assessment'.[110] Although many uncertainties remain regarding the precise content of the obligation to conduct an EIA,[111] as the Court explicitly recognised in its judgement, it did acknowledge the existence of such a basic obligation for States to prevent extraterritorial damage to the environment.[112]

[107] International Tribunal for the Law of the Sea, Southern Bluefin Tuna Cases (*New Zealand* v. *Japan*; *Australia* v. *Japan*), Request for Provisional Measures, Order of 27 August 1999, paras. 79–80.

[108] International Tribunal for the Law of the Sea, Mox Plant Case (*Ireland* v. *United Kingdom*), Request for Provisional Measures, Order of 3 December 2001, para. 84.

[109] International Tribunal for the Law of the Sea, Case Concerning Land Reclamation by Singapore in and around the Straits of Johor (*Malaysia* v. *Singapore*), Request for Provisional Measures, Order of 8 October 2003, para. 99. Emphasis added. For a more thorough review of these cases, see Schrijver, 'The Status of the Precautionary Principle in International Law and Its Application and Interpretation in International Litigation', pp. 246–50; and Trouwborst, *Evolution and Status of the Precautionary Principle in International Law*, pp. 156–78.

[110] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, para. 204.

[111] Ibid., para. 205 and Trouwborst, *Precautionary Rights and Duties of States*, p. 175.

[112] Also see Trouwborst, *Precautionary Rights and Duties of States*, p. 175, who argues that an 'EIA . . . can either provide the basis for precautionary action or constitute a precautionary measure in itself'. In the first instance, the EIA aims to determine the scale of the potential

According to the Court, such an obligation exists prior to the implementation of a project, while it continues to exist once 'operations have started and, where necessary, throughout the life of the project' in the form of the continuous monitoring of the effects of the operations on the environment.[113]

Although the statement of the Court regarding the obligation to conduct an EIA is limited to the prevention of extraterritorial damage to the environment, the obligation to conduct an EIA also applies to other situations. This is clear from Principle 17 of the 1992 Rio Declaration, which states in general terms that '[e]nvironmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment'. Furthermore, Article 14 of the 1992 Convention on Biological Diversity provides that each party shall

> [i]ntroduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures.

Guidelines were also adopted by the Conference of the Parties in the context of the 1971 Ramsar Convention on the Protection of Wetlands, calling on parties 'to ensure that any projects, plans, programmes and policies with the potential to alter the ecological character of wetlands in the Ramsar List . . . are subjected to rigorous impact assessment procedures'.[114] In addition, the World Bank prescribes that EIAs must be carried out 'to examine the potential environmental risks and benefits associated with Bank investment lending operations'.[115]

There is no standard procedure for conducting an EIA. As the International Court of Justice noted in the *Pulp Mills case*,

> it is for each State to determine in its domestic legislation or in the authorization process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and

damage (significant, serious or severe) in order to decide on the measures to be taken. In the latter case, the EIA aims to determine whether at all a particular activity or policy carries a risk of causing of damage to the environment.

[113] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, para. 205.

[114] Resolution VII.16 of the Conference of the Parties on Impact Assessment (1999).

[115] See http://web.worldbank.org under 'Environmental Assessment in Operational Policy'. Also see Sands and Peel, *Principles of International Environmental Law*, 3rd edn., pp. 617–19.

> magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment.[116]

The flexibility of an EIA as an instrument for assessing risks to the environment resulting from proposed projects makes it suitable for application in situations of armed conflict as well. The precise requirements can be accommodated to the specific circumstances, while leaving intact the basic obligation to assess the impacts of a proposed project on the environment on the basis of available scientific information.

In conclusion, it can be argued that the legal status of the precautionary principle, either as a general principle of international law or as a principle of customary international law, has not yet fully materialised. Although it seems that an increasing number of States – including all the States belonging to the European Union – consider the principle to be part of customary international law, there is as yet no worldwide agreement on its precise content. Nevertheless, there is general agreement on the need to take precautions to preserve and protect the environment. A precautionary approach to environmental damage is reflected in many treaties and has also found recognition in international case law. Moreover, specialised procedures have been developed in order to assess the risks involved in particular projects. EIAs can be effective tools for implementing the precautionary principle.

4.4 Common regimes

International environmental law contains several specialised regimes aimed at protecting particular species or parts of the environment for the benefit of a larger community of States. Most of these treaties assign a special status to the objects they aim to protect. For example, international environmental law has designated specific areas and their natural resources as 'world heritage'. Some treaties deal with natural resources that are shared by two or more States. In addition, certain environmental processes such as climate change and the loss of biological diversity have been proclaimed a 'common concern of humankind'.

In all these cases, States are required to take special measures to protect a common interest. Some of these measures have a direct impact on the right of States to use their natural resources freely, while others are

[116] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), Judgment of 20 April 2010, *I.C.J. Reports 2010*, para. 205.

aimed at giving States a fair share in the benefits resulting from common resources. A distinction should be made in this respect between natural resources that are situated within the national territories of States and natural resources that fall outside State sovereignty. Natural resources that are situated within State territory fall under the permanent sovereignty of the State where they are located. If such natural resources are located in more than one territory – or, in the case of species, if they migrate from one territory to another – they should be regarded as shared natural resources. These natural resources fall under the permanent sovereignty of more than one State. Some natural resources do not belong to particular States, because they fall entirely outside State territory. These natural resources are shared by all States.[117]

Natural resources that are located within State territory are protected by regimes for 'world heritage', 'shared natural resources' and the 'common concern of mankind', while natural resources that are located outside the territory of a State are protected either by the notion of the 'common heritage of humankind'[118] or by the notion of the 'common concern of mankind'. This section discusses some of these specialised regimes, focusing on the measures they impose on States for the protection of the common interests of a larger community of States.

4.4.1 Natural resources situated within State territory with special importance for the international community

Some natural resources that are situated within the territory of a State have been attributed a special status because of their outstanding importance for the international community as a whole. Examples of such regimes include those for 'wetlands of international importance' under the Ramsar Convention on Wetlands of International Importance and 'world heritage' under the UNESCO Convention for the Protection of World Heritage. The primary aim of these regimes is to preserve sites either 'on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology' or because of their 'outstanding universal value' from the point of view of science, conservation or natural beauty.[119]

[117] Also see Schrijver, *Development without Destruction,* pp. 34–113.

[118] The notion of the 'common heritage of mankind' is not discussed, because it applies only to natural resources that are located in areas beyond national jurisdiction.

[119] Article 2(2) of the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 2 February 1971, *996 UNTS 245*; Article 2 of the UNESCO Convention

The Ramsar and UNESCO Conventions both function on the basis of lists. Under the Ramsar Convention, it is the State itself which decides on the listing, while the UNESCO Convention has designated a committee for this purpose. However, the committee decides only on the basis of a proposal by the State party on whose territory the natural heritage is situated.[120] The primary characteristic of both regimes is that the protection of the sites is based on the principle of sovereignty. Both regimes place the primary responsibility for preserving the sites on the national State and reserve a complementary role for the international community to assist in the protection of the sites.[121]

Under the Ramsar Convention, the role of the international community is limited. International cooperation for the protection of wetlands consists mainly of mutual consultation and coordination of policies and regulations. The World Heritage Convention contains a more far-reaching system of cooperation. While Article 6(1) formulates a general duty of cooperation for the international community as a whole, Article 6(2) formulates an obligation for all States parties to help the State on whose territory the heritage is situated to implement its obligations under the convention, if that State so requests. In addition, the Convention establishes a fund for the protection of the world heritage, financed by the States parties to the Convention. This fund is used to provide assistance to States for the preservation of their world heritage.[122]

The World Heritage Convention also contains some provisions that have special relevance for the protection of world heritage in situations of armed conflict. First, States parties are prohibited from taking 'any deliberate measures which might damage directly or indirectly the

Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, *1037 UNTS 151*. It should be noted that the UNESCO World Heritage Convention does not only protect natural but also cultural properties of special significance. In addition, the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict (14 May 1954, *249 U.N.T.S. 240*) has been specifically adopted to protect cultural properties in situations of armed conflict. A cultural property that is under threat at this moment is the ancient city of Aleppo in Syria, which requires protection under the UNESCO World Heritage Convention. In addition, Syria is a party to the 1954 Hague Convention, referred to above. No specific convention has been adopted to protect natural heritage in situations of armed conflict. See Hulme, *War Torn Environment,* pp. 113–16, on the relevance of the 1954 Hague Convention for the protection of the environment.

[120] Article 2 of the Ramsar Convention; Article 11 of the World Heritage Convention.

[121] Articles 2(3) and 5 of the Ramsar Convention; Articles 4, 6 and 7 of the World Heritage Convention.

[122] See Part IV of the World Heritage Convention.

cultural and natural heritage . . . situated on the territory of other States Parties to this Convention'.[123] In other words, States may not deliberately harm the world heritage. A similar prohibition for States with regard to the world heritage situated within their own borders can be deduced from the general obligation contained in Article 4 for States parties to ensure 'the identification, protection, conservation, presentation and transmission to future generations' of the world heritage situated within their territories.[124]

The possibility provided by the Convention of entering natural heritage threatened by 'the outbreak or the threat of an armed conflict' on a list of 'World Heritage in Danger' is of particular interest for the protection of natural resources in situations of armed conflict.[125] The inclusion of a site in this list enables the World Heritage Committee to immediately allocate assistance to the endangered site from the Convention's Fund. Five nature reserves in the DR Congo have been placed on this list.[126]

The last treaty that should be mentioned in this category is the CITES.[127] This Convention is aimed at protecting endangered species of flora and fauna against overexploitation in international trade. Some of these species are migratory and therefore fall into the category of shared natural resources, while other species are found exclusively within the jurisdiction of a single State. The Convention recognises that wild fauna and flora are 'an irreplaceable part of the natural systems of the earth [and therefore] must be protected for this and the generations to come'.[128] The Convention therefore has a listing system similar to the systems of the Ramsar and World Heritage Conventions. It makes a distinction between three categories of species, based on their conservation status. The most threatened species are listed in Appendix I and are subject to particularly strict international regulation, while Appendix II and III species can be traded, provided that national authorities certify that the species have a legal origin and that trade is not detrimental to their survival.

[123] Article 6(3) of the World Heritage Convention.

[124] It should however be noted that this obligation can only be said to work *erga omnes partes*. See O'Keefe, 'World Cultural Heritage', pp. 189–209. Reference should further be made to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, referred to previously.

[125] Article 11(4) of the World Heritage Convention.

[126] For the role of the World Heritage Convention in protecting the Virunga Park in the DR Congo, see Sjöstedt, 'The Role of Multilateral Environmental Agreements in Armed Conflict', pp. 129–53.

[127] CITES, 3 March 1973, *993 UNTS 243*.

[128] Ibid., first paragraph of the preamble.

CITES is of particular relevance to this book, because it can be used to curtail the trade in specific conflict resources, especially wildlife and timber. Although the focus of CITES is on protecting endangered species, including commercial species in the lists covered by the Convention is certainly not out of the question. In fact, almost 200 commercial timber species have been listed in one of the CITES Appendices.[129] The CITES system works on the basis of export and import permits, which must be verified by management and scientific authorities in the countries of origin and destination. CITES can perform two different functions in preventing the trade in conflict resources. First, it can help national authorities to halt the trade in timber by rebel groups, as only the national authorities can grant export permits. Furthermore, the permit system of the Convention can assist the Security Council when it establishes a ban on timber originating from a particular country, provided that other States exporting the species under embargo adhere to CITES as well.[130] In that case, all the timber that is traded without an official permit must be considered suspicious.

4.4.2 Common concern

Other common regimes are based on the notion of 'common concern'.[131] Common concern regimes are aimed at creating a system of cooperation to address specific problems that concern the international community as a whole by dealing with matters of common concern at an international level. Common concern regimes qualify State sovereignty in a way similar to the World Heritage and Ramsar Conventions, in the sense that

[129] See International Tropical Timber Organization, Tracking Sustainability: Review of Electronic and Semi-electronic Timber Tracking Technologies, ITTO Technical Series 40, October 2012, p. 3.

[130] It is relevant to note that Article X of the Convention contains a provision on trade with non-parties to CITES. This provision stipulates as follows: 'Where export or re-export is to, or import is from, a State not a Party to the present Convention, comparable documentation issued by the competent authorities in that State which substantially conforms with the requirements of the present Convention for permits and certificates may be accepted in lieu thereof by any Party'. This means, for example, that a party to CITES that imports a particular species must ask the exporting State for documentation proving that the species is traded legally and has been harvested in a sustainable way.

[131] For a more detailed analysis of the notion of common concern, see Biermann, 'Common Concern of Humankind', pp. 426–81; Shelton, 'Common Concern of Humanity', pp. 83–90; Brunnée, 'Common Areas, Common Heritage and Common Concern', pp. 550–73; and Birnie, Boyle and Redgwell, *International Law and the Environment*, 3rd edn., pp. 128–30.

States retain primary responsibility for the protection of their natural resources.

The Convention on Biological Diversity is a good example. In its preamble, the Convention affirms that 'the conservation of biological diversity is a common concern of humankind', while reaffirming that 'States have sovereign rights over their own biological resources'. In addition, the preamble qualifies these sovereign rights by '[r]eaffirming also that States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner'. The provisions elaborate on this by imposing obligations upon States regarding the conservation and sustainable use of (components of) biological diversity, while defining 'the sovereign right [of States] to exploit their own resources pursuant to their own environmental policies' as a principle.

In addition to the conservation of biological diversity, the common concern concept has also been applied to climate change. In its preamble, the UNFCCC acknowledges that 'change in the Earth's climate and its adverse effects are a common concern of humankind', while it reaffirms 'the principle of sovereignty of States in international cooperation to address climate change'. Moreover, obligations for States concerning the formulation of policies regarding the mitigation of climate change have been inserted in the provisions. However, despite the application of the concept in these conventions, its significance as a system for international cooperation has remained modest. The concept has not been applied to other environmental problems.

Common concern regimes are important to this book because these regimes impose obligations upon States to protect their natural resources for the benefit of the entire community of States. Relevant obligations in the Convention on Biological Diversity and under the Climate Convention include monitoring and reporting obligations, as well as financial assistance and technology transfer to developing countries. The Convention on Biological Diversity, and in particular the constraints it places on the use of biological diversity and biological resources, are the most important for the purposes of the present book. As discussed in greater detail in Chapter 5, States involved in an armed conflict should at the very least refrain from actions that cause a serious threat to biological diversity.

4.4.3 Shared natural resources

Shared natural resources fall into two different categories. The first category concerns natural resources that are situated on the border

between two or more States, such as transboundary forests or wetlands. The second category concerns natural resources that are present within different States' borders at different times, such as migratory (land) animals, straddling fish stocks and freshwater resources.[132] In both cases, States must take special protective measures and must cooperate to protect their interests in the shared natural resources. The protection of shared natural resources has two major objectives: (1) to preserve the natural resources and (2) to guarantee a fair share in the resources for the States where these natural resources are found. One major difference from the regimes discussed in the previous sections is therefore that the natural resources are not protected in order to protect a special interest of the international community as a whole, but rather to protect the rights of directly affected States.

Although the issue of shared natural resources is also addressed to some extent in older conventions,[133] the 1978 Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States are the first to address the issue of shared natural resources in a systematic way. These principles were prepared by UNEP in response to a request by the UN General Assembly to report on measures to be adopted for the implementation of a system for the effective cooperation between States for the conservation and harmonious utilisation of shared natural resources.[134] In its Resolution 34/186 of 18 December 1979, the UN General Assembly took note of the principles while requesting States 'to

[132] See the Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, *1651 UNTS 333*; the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, *2167 UNTS 88*; and the UN Convention on the Law of the Non-navigational Uses of International Watercourses, 21 May 1997, *36 ILM 700 (1997)*.

[133] See, in particular, Article 5 of the 1971 Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 2 February 1971, 996 UNTS 245, which emphasises that a duty of consultation about the implementation of obligations arising from the Convention exists 'especially in the case of a wetland extending over the territories of more than one Contracting Party or where a water system is shared by Contracting Parties'.

[134] Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, *17 ILM 1097 (1978)*. For the request of the UN General Assembly, see UNGA Resolution 3129 (XXVIII) of 13 December 1973 concerning Co-operation in the Field of the Environment Concerning Natural Resources Shared by Two or More States.

use the principles as guidelines and recommendations in the formulation of bilateral or multilateral conventions regarding natural resources shared by two or more States'.[135]

Many of the UNEP principles reflect modern obligations in international law, such as the obligation not to cause transboundary damage and the obligation to conduct an EIA. The principles also formulate standards for cooperation between States for the protection of shared natural resources, including the exchange of information, notification and consultation between States which share resources. In addition, they cover the peaceful settlement of disputes relating to shared natural resources and the liability of States for environmental damage resulting from violations of their international obligations with regard to the conservation and utilisation of shared natural resources.

Since the adoption of the UNEP principles, several treaties have been adopted that deal specifically with the management of shared natural resources. One of the most sophisticated legal regimes in this respect relates to the use of international rivers, lakes and groundwater sources. Specific reference can be made to the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses, which formulates a dual obligation for States to utilise the watercourse in an equitable and reasonable manner and to cooperate in its protection and development.[136] Arguably, these obligations not only apply to the use of the watercourse itself, but also have implications for the use of the natural resources found within the watercourse, such as alluvial minerals. The obligation of equitable use implies, *inter alia,* that States must ensure that other States can enjoy the shared resource on the basis of equality.[137] It can be assumed that the obligation of equitable use implies

[135] UNGA Resolution 34/186 concerning Cooperation in the Field of the Environment Concerning Natural Resources Shared by Two or More States, 18 December 1979, especially paras. 2 and 3.

[136] See Article 5 of the UN Convention on the Law of the Non-navigational Uses of International Watercourses. For an analysis of international law relating to the non-navigational use of international watercourses, see McCaffrey, *The Law of International Watercourses*; and Boisson de Chazournes and Salman (eds.), *Les Ressources en Eau et le Droit International.*

[137] See the judgment of the International Court of Justice in the case concerning the Gabčíkovo–Nagymaros Project (*Hungary* v. *Slovakia*), Judgment of 25 September 1997, *I.C.J. Reports 1997*, p. 7, para. 85, in which the court determines the existence of 'a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others', referring to the 1929 *Lac Lanoux case*

a prohibition against States seriously upsetting the ecological balance of the watercourse, e.g., by causing pollution through exploitation of the natural resources found within the watercourse.

Furthermore, reference can be made to UNCLOS, which contains some basic rules for the protection of enclosed or semi-enclosed seas. Relevant obligations for States bordering on an enclosed or semi-enclosed sea include a duty to coordinate the management, conservation, exploration and exploitation of the living resources of the sea, as well as a duty to coordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment.[138] These rules complement the general provisions on the protection and preservation of the marine environment, included in Part XII of the Convention. This part deals primarily with the prevention of pollution in the marine environment.

There are several other regimes for the management and protection of shared natural resources. These include the Convention on the Conservation of Migratory Species of Wild Animals and the 1995 Straddling Fish Stocks Agreement.[139] For other shared natural resources, such as forests, oil or gas, there are still no specific rules. There are a few regional treaties concerning transboundary forests, including the Amazon Cooperation Treaty and the Congo Basin Conservation Treaty.[140] In contrast, controversy regarding the delimitation of geographical boundaries between States and political sensitivities have so far prevented the adoption of specific rules for shared oil and natural gas deposits altogether.[141]

In conclusion, legal regimes for the management and protection of shared natural resources are based on a dual obligation to protect these

rendered by the Permanent Court of Justice, and that 'Czechoslovakia, by unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube . . . failed to respect the proportionality which is required by international law'.

[138] See Part IX of the UN Convention on the Law on the Sea concerning enclosed or semi-enclosed seas, in particular Article 123. It should be noted that the nonliving resources of the sea, such as minerals, oil and gas, are exempted from the regime for cooperation.

[139] Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, *1651 UNTS 333*; United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, *2167 UNTS 88*.

[140] For example, see the Amazon Cooperation Treaty of 3 July 1978, concluded between the States on whose territory the Amazon is situated.

[141] The topic of oil and natural gas was originally envisaged by the ILC in 2002 as part of its work on shared natural resources, but in the end it was not considered feasible to draft articles relating to the use of such shared oil and gas deposits.

resources and to cooperate with regard to their protection. This obligation to cooperate with regard to the protection and management of shared natural resources is firmly rooted in international law. In the Pulp Mills case, the International Court of Justice stated that 'the procedural obligations of informing, notifying and negotiating . . . are all the more vital when a shared resource is at issue . . . which can only be protected through close and continuous co-operation' between the interested States.[142] In the *Mox Plant case*, ITLOS also indicated that 'the duty to cooperate is a fundamental principle . . . under . . . general international law'.[143] Arguably, as explored in more detail in Chapter 5, this obligation does not cease to exist in situations of armed conflict.

4.5 Conclusions

This chapter has discussed several principles arising from the field of international environmental law that qualify the right of States to exploit their natural resources. These principles formulate obligations of care for States with regard to the use of their own natural resources and those of other States. Relevant principles include the principle of conservation and sustainable use of natural resources, the principle of intergenerational equity, the principle of prevention and the precautionary principle.

Of the principles discussed in this chapter, two can be considered to have become part of customary international law. These are the principles of sustainable use and the principle of prevention. While the principle of sustainable use is aimed at preserving natural wealth and resources for long-term development, the principle of prevention formulates an obligation of due diligence for States with regard to the prevention of damage to the environment of other States. These principles apply even when States have not subscribed to the relevant treaties in which the principles are embodied.

The principles of intergenerational equity, as well as the precautionary principle, do not have such a firm status in international law. Nevertheless, the principle of intergenerational equity can be regarded as an important argument for most measures that aim at protecting the environment. The precautionary principle, for its part, has also become increasingly

[142] International Court of Justice, Case Concerning Pulp Mills on the River Uruguay (*Argentina* v. *Uruguay*), *I.C.J. Reports 2010*, para. 81.

[143] The Mox Plant case (*Ireland* v. *United Kingdom*), Request for Provisional Measures, Order of 3 December 2001, para. 82. The tribunal confirmed this judgment in its Case Concerning Land Reclamation by Singapore in and around the Straits of Johor (*Malaysia* v. *Singapore*), Provisional Measures, Order of 8 October 2003, para. 92.

important in the last decade. It has been inserted into several international environmental treaties, while elements of the principle can also be found in treaties in other fields of international law. Furthermore, international courts are cautiously starting to attach more weight to the principle. The most important development is that there is now an obligation under international law to perform an EIA in order to assess the risks of a proposed activity on the environment.

Arguably, these principles are not only relevant for the exploitation of natural resources by States in times of peace, but also in situations of armed conflict. Only a few of the armed conflicts examined in this book have amounted to full-scale wars affecting the whole territory of a State. In most of the armed conflicts examined in this book the violence was limited to specific parts of the State territory. In these situations, national authorities must continue to respect their obligations under international environmental law when conducting commercial activities in parts of the territory under their control.

In addition, some of the principles examined in this chapter are also relevant for territories that are occupied by other States. As explained in more detail in Part II of this book, occupants are *de facto* authorities whose legal position can be compared in many ways with that of the national authorities of a State. Although their legal position is primarily governed by IHL, international environmental law is relevant to situations of occupation as well, both directly and indirectly.

Furthermore, this chapter has examined legal regimes aimed at protecting a common interest of two or more States. Some of these common regimes are aimed at protecting natural resources that are only important to specific States, while others are aimed at protecting natural resources that are important to the international community as a whole. This chapter has examined three categories of common regimes. These are regimes aimed at protecting specific natural resources situated within the territory of a single State, but which have special importance for the international community as a whole, regimes that are aimed at addressing a concern that is common to the international community, and regimes for the management of shared natural resources. All these regimes are based on an obligation to individually and collectively protect the natural resources in the interests of all the States concerned. Arguably, this obligation does not cease to exist in situations of armed conflict. Furthermore, the common interest that these regimes are aimed at protecting entails a presumption that they will not be susceptible to unilateral suspension in situations of armed conflict.