Part I
Foundations

1

Emergence and Development of International Environmental Law

1.1 Introduction

The international regulation of environmental problems is not a recent phenomenon. One can find several precedents of what today would be called international environmental law dating back to the nineteenth and early twentieth century. What characterises modern international environmental law is a focus on protecting the environment *per se* (essentially for human purposes but not only as a useful resource), as well as the sophistication of the legal techniques developed to this effect.

The purpose of this chapter is to provide a concise introduction to the main developments that form the backbone of modern international environmental law.[1] We will not dwell on the historical detail of these developments,[2] nor do we intend to conduct a comprehensive analysis of the multiple reasons that led to them. Rather, we will discuss some key developments that, taken together, define an overall trend. From the late nineteenth century to the beginning of the 1970s, the regulation of environmental problems moved from either a conservation- or a resource-oriented logic to a more comprehensive one, whereby environmental protection was increasingly valued for a wider set of reasons, including resource preservation and nature conservation but also concerns about pollution, overpopulation or environmental security. Since the 1970s, the need to protect the environment has progressively become one of the most pressing policy issues in the international agenda. Yet, at the same time, newly independent and other developing States have struggled to ensure that environmental regulation does not impose a strait-jacket on their ability to pursue developmental policies as they see fit.

[1] For a more detailed introduction see L. K. Caldwell, *International Environmental Policy. From the Twentieth to the Twenty-First Century* (Durham: Duke University Press, 3rd edn, 1996).

[2] For two remarkable studies, one taking a long-term perspective and linking early environmentalism to colonialism and the other focusing on the rise of the conservation movement at the international level in the aftermath of the Second World War, see R. H. Grove, *Green Imperialism. Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600–1860* (Cambridge University Press, 1996); S. Macekura, *Of Limits and Growth. The Rise of International Sustainable Development in the Twentieth Century* (Cambridge University Press, 2015).

Overall, the trend analysed in this chapter can be represented graphically as a line oscillating between economic development and environmental protection considerations. The pull of developmental considerations has become stronger in the last decade, particularly after the move towards actual implementation following the 2002 Johannesburg Summit, the 2012 Rio Summit and, more recently, the adoption in 2015 of the 2030 Agenda for Sustainable Development, with its seventeen Sustainable Development Goals (SDGs). As we shall see, the 'environment–development equation' is currently in need of significant recalibration, to strike a proper balance between development/growth and environmental protection.

1.2 Precedents

The initial approach to the international regulation of environmental problems was organised around essentially three issues, namely the rules governing the exploitation of certain resources, transboundary damage and the use of shared watercourses. To illustrate these issues, it is helpful to refer to three classic cases, often cited as precedents of modern international environmental law.[3]

The first case, known as the *Bering Sea Fur Seals Arbitration* (*United States* v. *United Kingdom*),[4] illustrates the difficulties arising from the competing exploitation of a common resource by different States. Following the acquisition of Alaska in 1867, the United States took a series of steps to establish exclusive jurisdiction over sealing activities in the Bering Sea. British vessels were prevented from sealing in the Bering Sea by US patrols. After several years of unsuccessful negotiations between the United States, the United Kingdom and Russia the question was submitted to arbitration by a treaty of 29 February 1892. During the arbitration proceedings, the central argument of the United States was that they had the sovereign rights formerly enjoyed by Russia in this region and, interestingly, that they also had the right and duty to protect fur seals even when they were beyond the limits of US territorial waters. The latter argument was based on the idea, advanced by counsel for the United States, that they had been invested with the responsibility for preventing the over-exploitation of fur seals, which were threatened by the sealing practices of British vessels. In its decision of 15 August 1893, the tribunal rejected the arguments of the United States and sided with the United Kingdom. It should be noted that the second argument of the United States was not intended to protect a species *per se*, but rather to preserve its economic exploitation. Thus, the *Fur Seals Arbitration* is a good illustration of the spirit of the time, although

[3] For a selection of early environmental cases, see C. A. R. Robb (ed.), *International Environmental Law Reports*, vol. 1, Early Decisions (Cambridge University Press, 1998).
[4] *Bering Sea Fur Seals Arbitration*, Award (15 August 1893), RIAA, vol. XXVIII, pp. 263–76 (*Fur Seals* Arbitration).

the US argument was an innovative one. This same concern underlies certain treaties concluded in the same period for the protection of animal species.[5]

Another important precedent is the *Trail Smelter Arbitration (United States* v. *Canada)*.[6] This case illustrates the essentially transboundary character of classical environmental regulation, which has profoundly influenced the development of international environmental law.[7] The United States complained of emissions of sulphur dioxide released by a smelter based on Canadian soil, which caused damage to crops and lands in the neighbouring state of Washington. By a treaty of 15 April 1935, the question was submitted to arbitration. In its award of 11 March 1941, the arbitral tribunal famously concluded that according to 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.[8]

This principle was later confirmed by the International Court of Justice (ICJ) in the *Corfu Channel* case *(United Kingdom* v. *Albania)*[9] and profoundly influenced the work of the International Law Commission (ILC) on liability for the injurious consequences arising from lawful activities.[10] As discussed later in this chapter, a modern version of this principle is today an essential component of international environmental law.

The third case to be mentioned is the *Lake Lanoux Arbitration (Spain* v. *France)*,[11] which illustrates another area of classical environmental regulation, namely the use of shared watercourses. The case concerned certain measures taken by France involving the diversion of the waters of a river tributary of Lake Lanoux. According to Spain, these measures affected the flow of water that would be available to Spain (through the River Carol) in breach of international law. In its award of 16 November 1957, the tribunal rejected this claim, noting among other things that:

[5] See, e.g. Treaty concerning the Regulation of Salmon Fishery in the Rhine River Basin, 30 June 1885, available at: www.ecolex.org (TRE-000072); Convention for the Protection of Birds Useful to Agriculture, 19 March 1902, available at: www.ecolex.org (TRE-000067); Convention between the United States, Great Britain, Japan and Russia providing for the Preservation and Protection of Fur Seals, 7 July 1911, 37 Stat. 1542; Convention for the Regulation of Whaling, 24 September 1931, available at: www.ecolex.org (TRE-000073); International Convention for the Regulation of Whaling, 2 December 1946, 161 UNTS 361.

[6] *Trail Smelter Arbitration*, RIAA, vol. III, pp. 1905 (*Trail Smelter Arbitration*).

[7] See J. E. Viñuales, 'The Contribution of the International Court of Justice to the Development of International Environmental Law' (2008) 32 *Fordham International Law Journal* 232.

[8] *Trail Smelter Arbitration, supra* footnote 6, p. 1965.

[9] *Corfu Channel* case, Judgment of 9 April 1949, ICJ Reports 1949, p. 22.

[10] See *infra* Chapter 8.

[11] *Lake Lanoux Arbitration (Spain* v. *France)*, Award (16 November 1957), RIAA vol. XII, pp. 281ff (*Lake Lanoux Arbitration*).

> The Spanish Government endeavoured to establish similarly the content of current positive international law. Certain principles which it demonstrates are, assuming the demonstration to be accepted, of no interest for the problem now under examination. Thus, if it is admitted that there is a principle which prohibits the upstream State from altering the waters of a river in such a fashion as seriously to prejudice the downstream State, such a principle would have no application to the present case, because it has been admitted by the Tribunal . . . that the French scheme will not alter the waters of the Carol. In fact, States are today perfectly conscious of the importance of the conflicting interests brought into play by the industrial use of international rivers, and of the necessity to reconcile them by mutual concessions. The only way to arrive at such compromises of interests is to conclude agreements on an increasingly comprehensive basis.[12]

It was common at that time (and it is today) to conclude treaties on the use of shared watercourses.[13] Some of these agreements only contained a few provisions on the protection of waters against pollution, while others were mainly devoted to this question.[14]

These three milestones illustrate the approaches followed prior to the 1960s for the international regulation of matters that are today described as falling within the environmental sphere. It must be emphasised that, in general, these were primarily intended to foster the economic exploitation of certain species or resources. As discussed next, this idea was still prevalent in the early 1960s.

1.3 Permanent Sovereignty over Natural Resources

The protection of certain resources or areas has long been inseparable from the concept of State sovereignty. With the exception of the high seas, areas beyond the sovereignty of States or their colonial or military administration remained scarcely regulated by international law until the second half of the twentieth century.

With the onset of the decolonisation process, newly independent States paid particular attention to their entitlements over their natural resources as

[12] *Ibid*., para. 13.

[13] See, e.g. Treaty between the United States of America and Mexico Concerning the Equitable Distribution of the Waters of the Rio Grande, 21 May 1906, 34 Stat. 2953; Treaty between the United States of America and Mexico Relating to the Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande, 3 February 1944, 3 UNTS 314; Convention Concerning the Regime of Navigation on the Danube, 18 August 1948, available at: www.ecolex.org (TRE-000555); Convention Concerning the Regulation of Lake Lugano and its Additional Protocol, 17 September 1955, 291 UNTS 218.

[14] See e.g. Protocol to Establish a Tripartite Standing Commission on Polluted Waters, 8 April 1950, available at: www.ecolex.org (TRE-000493); Agreement on the Protection of Lake Constance against Pollution, 27 October 1960, available at: www.ecolex.org (TRE-000464); Agreement between France and Switzerland on the Protection of Lake Geneva, 16 November 1962, 1974 UNTS 54; Agreement Concerning the International Commission for the Protection of the Rhine against Pollution, 29 April 1963, available at: www.ecolex.org (TRE-000484).

a condition for achieving not only political but also economic independence. As noted by a prominent commentator:

> [i]n applying explicitly the principle of sovereignty – used here in its political sense – to use and freely dispose of natural resources, [it was] intend[ed] to highlight the permanent and intangible link between sovereignty and self-determination, the former serving not only as a legal shield for the political realisation of the latter, i.e. independence, but also as a permanent guarantee of its being exercised in the economic field beyond formal accession to independence.[15]

In many ways, and perhaps paradoxically, the principle of permanent sovereignty over natural resources is a building block of modern environmental regulation. Until the 1970s, this principle was only intended to protect resources in view of their economic exploitation by newly independent States. However, over the following decades, this principle was to be linked to the no-harm principle and then generalised as the starting-point of the prevention principle, as discussed in Chapter 3.

For present purposes, the historical vicissitudes in the development of this principle are less important[16] than the final result: namely, the adoption by the UN General Assembly on 14 December 1962 of Resolution 1803 (XVII) on 'Permanent Sovereignty over Natural Resources'.[17] This landmark resolution, generally regarded as an expression of customary international law,[18] states in its first paragraph that:

> [t]he right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned.

The main feature of sovereignty over natural resources is its permanence. Sovereignty is indeed the rule, and its limitations are 'necessarily ephemeral and circumscribed in their scope and time'.[19]

[15] G. Abi-Saab, 'La souveraineté permanente sur les ressources naturelles', in M. Bedjaoui (ed.), *Droit international: bilan et perspectives* (Paris: Pedone, 1989), pp. 638–61, at 639–40 (our translation).

[16] See N. Schrijver, *Sovereignty over Natural Resources. Balancing Rights and Duties* (Cambridge University Press, 1997), pp. 36–76.

[17] 'Permanent Sovereignty over Natural Resources', 14 December 1962, UN Doc. A/RES/1803/XVII, (Resolution 1803).

[18] Abi-Saab, *supra* footnote 15, p. 644; *Texaco Overseas Petroleum Company and California Asiatic Oil Company* v. *The Government of the Libyan Arab Republic*, Arbitral Award (19 January 1977), 17 ILM 1978, para. 87; *Libyan American Oil Company (LIAMCO)* v. *The Government of the Libyan Arab Republic*, Arbitral Award (12 April 1977), 20 ILM 1981, p. 103; *Kuwait* v. *American Independent Oil Company (AMINOIL)*, Arbitral Award (24 March 1982), 21 ILM 1982, para. 1803; *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo* v. *Uganda)*, Judgment (2005), ICJ Reports 2005, p. 168, paras. 244–5.

[19] Abi-Saab, *supra* footnote 15, p. 645 (our translation).

The limitations that the drafters of the resolution contemplated were those that could arise from agreements with foreign investors on the exploitation of natural resources. However, starting in the late 1960s, another category of limitations began to emerge, namely the constraints derived from the incipient environmental regulation. This context largely explains the suspicion expressed by developing countries in respect of the first important initiative of industrialised countries in the field of environmental protection.[20] Indeed, as discussed next, tensions between the management of resources from a developmental perspective and environmental protection have characterised international environmental law ever since.[21]

1.4 The Stockholm Conference on the Human Environment (1972)

During the 1960s, several environmental problems captured the interest of international public opinion and catalysed awareness on the need to act.[22]

In 1962, Rachel Carson published her groundbreaking book *Silent Spring*,[23] highlighting the adverse effects of pesticides (DDT) on the environment, suggesting that they should more appropriately be called 'biocides'. This book was the first in a series of influential publications on the adverse impact of human activities on the environment, such as Kenneth Boulding's *The Economics of the Coming Spaceship Earth*,[24] Max Nicholson's *The Environmental Revolution*[25] or Barry Commoner's *The Closing Circle*.[26] Similarly, the alarming results of the Meadows Report, *The Limits to Growth*,[27] prepared on the initiative of the Club of Rome, also contributed to direct public attention to environmental issues.[28] An additional sense of urgency came from

[20] Schrijver, *supra* footnote 16, at pp. 231–50.

[21] For two retrospective studies that pay attention to the legal dimensions of this tension as they have evolved over time see S. Alam, S. Atapattu, C. Gonzalez and J. Razzaque (eds.), *International Environmental Law and the Global South* (Cambridge University Press, 2016); C. Brighton, 'Unlikely Bedfellows: The Evolution of the Relationship between Environmental Protection and Development' (2017) 66 *International and Comparative Law Quarterly* 209.

[22] For a review of the main scientific contributions that catalysed the environmental movement, see J. Grinevald, *La Biosphère de l'Anthropocène. Climat et pétrole, la double menace. Repères transdiciplinaires (1824–2007)* (Geneva: Georg, 2007), pp. 115ff. On the immediate origins of the Stockholm Conference (although with a markedly US perspective) and the cleavages underpinning the 'environmental movement' see Macekura, *supra* footnote 2, chapter 3.

[23] R. Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962).

[24] K. E. Boulding, 'The Economics of the Coming Spaceship Earth', in H. Jarrett (ed.), *Environmental Quality in a Growing Economy* (Baltimore: Johns Hopkins University Press, 1966), pp. 3–14.

[25] M. Nicholson, *The Environmental Revolution: A Guide for the New Masters of the World* (London: Hodder & Stoughton, 1969).

[26] B. Commoner, *The Closing Circle: Nature, Man, and Technology* (New York: Alfred Knopf, 1971).

[27] D. H. Meadows, D. L. Meadows, J. Randers and W. W. Behrens III, *The Limits to Growth* (New York: Universe Books, 1972).

[28] See R. Guha, *Environmentalism: A Global History* (New York: Longman, 2000); A. Dobson, *Green Political Thought* (New York: Routledge, 4th edn, 2007).

events such as the grounding of the Liberian oil tanker *Torrey Canyon* off the British coast or the poisoning of the population of Minamata, a Japanese village, as a result of mercury spills from a petrochemical company.

In this context, a number of international initiatives were launched. Among others, in December 1968, the UN General Assembly adopted Resolution 2398(XXIII),[29] entitled 'Problems of the Human Environment' and convening a 'United Nations Conference on the Human Environment'. This conference, which was held from 5 to 16 June 1972 in Stockholm (Sweden), is generally seen as the foundational moment of modern international environmental law. Incidentally, shortly before the start of the conference, a resolution adopted on the initiative of Brazil highlighted the profound tension between development and environmental protection.[30] This resolution focused on the potential adverse effects of environmental policies on the development of poor countries and 'reiterate[d] the primacy of independent economic and social development as the main and paramount objective of international co-operation, in the interests of the welfare of mankind and of peace and world security'.[31]

The Stockholm Conference was attended by delegations from more than a hundred States as well as by representatives of major intergovernmental organisations. Hundreds of NGOs gathered around the Conference – some of them even participated in it – in a format which is nowadays common to most environmental conferences. The negotiations resulted in three main outcomes: namely, a 'Declaration on the Human Environment',[32] also known as the 'Stockholm Declaration', an 'Action Plan for the Human Environment'[33] and, soon after, the establishment of the United Nations Environment Programme or UNEP.[34] Figure 1.1 summarises these outcomes.

The significance of these outcomes warrants some comments. The Stockholm Declaration consists of a preamble and twenty-six principles. There are a number of studies on this important instrument.[35] For present purposes it will suffice to highlight some of its major themes. Principle 1 of the Declaration affirms the fundamental human right to 'adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being'.

[29] 'Problems of the Human Environment', 3 December 1968, UN Doc. 2398 (XXIII).
[30] 'Development and Environment', 20 December 1971, UN Doc. 2849 (XXVI). For a study that situates the beginning of this tension in the run-up to the Stockholm Conference, see K. Mickelson, 'The Stockholm Conference and the Creation of the South–North Divide in International Environmental Law and Policy', in S. Alam *et al., supra* footnote 21, pp. 109–29.
[31] 'Development and Environment', *supra* footnote 30, para. 11.
[32] 'Declaration of the United Nations Conference on the Human Environment', Stockholm, 16 June 1972, UN Doc. A/CONF 48/14/Rev.1, pp. 2ff (Stockholm Declaration).
[33] 'Action Plan for the Human Environment', 16 June 1972, UN Doc. A/CONF 48/14, pp. 10–62.
[34] 'Institutional and Financial Arrangements for International Environmental Cooperation', 15 December 1972, UN Doc. A/RES/2997/XXVII (Resolution 2997).
[35] See A. Kiss and D. Sicault, 'La Conférence des Nations Unies sur l'environnement (Stockholm, 5–16 June 1972)' (1972) 18 *Annuaire français de droit international* 603; L. B. Sohn, 'The Stockholm Declaration on the Human Environment' (1973) 14 *Harvard International Law Journal* 423.

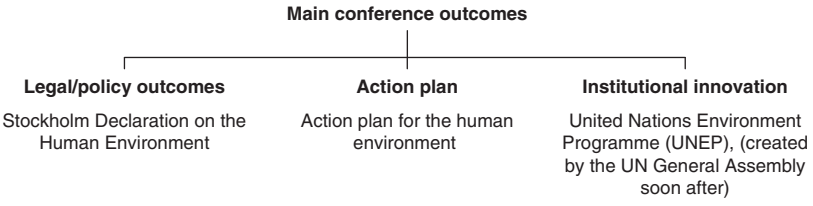

Figure 1.1 The Stockholm Conference (1972)

The debate triggered by this principle over the existence, scope and possible modalities of a right to a healthy environment has continued until today and, as discussed in Chapter 10, this right has now been enshrined in a number of domestic and international instruments. From a broader perspective, Principle 1 placed the entire effort towards environmental protection in an anthropocentric light, i.e. environmental protection is important for humans. Principles 2 to 26 of the Declaration are devoted, with some overlaps, to (i) the definition of the province of international environmental law (Principles 2 to 7), (ii) an initial statement of the substantive principles guiding efforts in this area and (iii) certain modalities for implementation. The first component involved the preservation of 'the natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems' (Principle 2), the ability of the earth to generate renewable and non-renewable resources (Principles 3–5) and, more concretely, the need to curb pollution (Principles 6 and 7). Regarding substantive principles, the Declaration provides early formulations of the principles of intergenerational equity (Principle 2), international cooperation for the protection of the environment (Principle 24) and, above all, the prevention of environmental damage (Principle 21). The latter is very important for our subject because it summarises the three pillars of environmental protection, namely the *permanent sovereignty* of States over their natural resources, limited by the duty to ensure that activities carried out within the boundaries of their jurisdiction or control *do not cause damage to the environment of other States* or *in areas beyond national jurisdiction*. Finally, the Stockholm Declaration also covers matters of implementation, paying particular attention to the situation of developing countries and their specific needs. On several occasions, the Declaration addresses the relationship between development and environmental protection, which had been much debated in the run-up to Stockholm. It recalls the importance of development to ensure access to a healthy environment (Principle 8) or to tackle certain environmental problems (Principles 9 and 10). It also emphasises the need for technical and financial assistance for developing countries (Principle 12) and, significantly, it warns against the possible adverse impact of domestic environmental policies on economic development (Principle 11).