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* (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 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 a resource-oriented logic to a more comprehensive one, whereby environmental protection was increasingly valued beyond the immediate economic benefits that the preservation of a resource could bring. 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 straitjacket on their ability to pursue developmental policies as they see fit.

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 2002 Johannesburg Summit and, more recently, at the 2012 Rio Summit. As we shall see, the 'environment-development equation' is currently in need of significant recalibration and, perhaps, even of a new model, capable of striking a proper balance between development/growth and environmental protection.

[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).

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.[2]

The first case, known as the *Bering Sea Fur Seals Arbitration* (*United States* v. *United Kingdom*),[3] 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 the US argument was an innovative one. This same concern underlies certain treaties concluded in the same period for the protection of animal species.[4]

Another important precedent is the *Trail Smelter Arbitration* (*United States* v. *Canada*).[5] This case illustrates the essentially transboundary character of

[2] 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).

[3] *Bering Sea Fur Seals Arbitration*, Award (15 August 1893), RIAA, vol. XXVIII, pp. 263–76 ('*Fur Seals Arbitration*').

[4] 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 the 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.

[5] *Trail Smelter Arbitration*, RIAA, vol. III, pp. 1905–82 ('*Trail Smelter Arbitration*').

classical environmental regulation, which has profoundly influenced the development of international environmental law.[6] 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.[7]

This principle was later confirmed by the International Court of Justice ('ICJ') in the *Corfu Channel Case* (*United Kingdom* v. *Albania*)[8] and profoundly influenced the work of the International Law Commission ('ILC') on liability for the injurious consequences arising from lawful activities.[9] As discussed later in this chapter, the principle remains today an essential component of international environmental law.

The third case to be mentioned is the *Lake Lanoux Arbitration* (*Spain* v. *France*),[10] 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 others that:

> 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

[6] 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.
[7] *Trail Smelter Arbitration, supra* n. 5, p. 1965.
[8] *Corfu Channel Case*, Decision of 9 April 1949, ICJ Reports 1949, p. 22 ('*Corfu Channel Case*'), p. 22.
[9] See *infra* Chapter 11.
[10] *Lake Lanoux Arbitration (Spain/France)*, Award, (16 November 1957), RIAA vol. XII, pp. 281ff ('*Lake Lanoux Arbitration*').

> compromises of interests is to conclude agreements on an increasingly comprehensive basis.[11]

It was common at that time (and it is today) to conclude treaties on the use of shared watercourses.[12] Some of these agreements only contained a few provisions on the protection of waters against pollution while others were mainly devoted to this question.[13]

These three milestones illustrate the existence of international instruments, prior to the 1960s, regulating 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 a State or under 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 noted by Georges Abi-Saab:

> [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.[14]

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

[12] 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.

[13] 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).

[14] 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).

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 the 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 later.

For present purposes, the historical vicissitudes in the development of this principle are less important[15] 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'.[16] This landmark resolution, generally regarded as an expression of customary international law,[17] 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'.[18]

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.[19] Indeed, as discussed next, tensions between the management of resources from a developmental perspective and environmental protection have characterised international environmental law since its modern inception.

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

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

[17] Abi-Saab, *supra* n. 14, 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 (19 December 2005), ICJ Reports 2005, p. 168, paras. 244–5.

[18] Abi-Saab, *supra* n. 14, p. 645 (our translation). [19] Schrijver, *supra* n. 15, at pp. 231–50.

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.[20]

In 1962, Rachel Carson published her groundbreaking book *Silent Spring*,[21] highlighting the adverse effects of pesticides (DDT) on the environment and, more specifically, on birds. 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*,[22] Max Nicholson's *The Environmental Revolution*[23] or Barry Commoner's *The Closing Circle*.[24] Similarly, the alarming results of the Meadows Report *The Limits to Growth*,[25] prepared on the initiative of the Club of Rome, also contributed to direct public attention to environmental issues.[26] An additional sense of urgency came from 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)[27] 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 tension between development and environmental protection.[28] 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

[20] 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.

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

[22] 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.

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

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

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

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

[27] 'Problems of the Human Environment', 3 December 1968, UN Doc. 2398 (XXIII).

[28] 'Development and Environment', 20 December 1971, UN Doc. 2849 (XXVI).

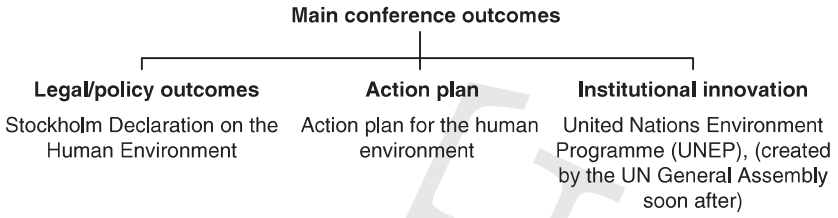

Figure 1.1: The Stockholm Conference (1972)

the main and paramount objective of international co-operation, in the interests of the welfare of mankind and of peace and world security.'[29]

The Stockholm Conference was attended by delegations from more than a hundred States as well as by representatives of major intergovernmental organisations and of over 400 NGOs. The negotiations resulted in three main outcomes, namely a 'Declaration on the Human Environment',[30] also known as the 'Stockholm Declaration', an 'Action Plan for the Human Environment'[31] and, soon after, the establishment of the United Nations Environment Programme or 'UNEP'. [32] Figure 1.1 summarises these outcomes.

The significance of these outcomes warrant some comments. The Stockholm Declaration consists of a preamble and twenty-six principles. There are a number of studies on this important instrument.[33] 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'. 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. 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 8), (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

[29] *Ibid.*, para. 11.

[30] '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').

[31] 'Action Plan for the Human Environment', 16 June 1972, UN Doc. A/CONF 48/14, pp. 10–62.

[32] 'Institutional and Financial Arrangements for International Environmental Cooperation', 15 December 1972, UN Doc. A/RES/2997/XXVII ('Resolution 2997').

[33] 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.

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 co-operation for the protection of the environment (Principle 24) or 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).

The other two outcomes of the Stockholm Conference are both related to the implementation of environmental policies. The 'Action Plan for the Human Environment' adopted at the Conference includes 109 recommendations organised around three fundamental axes, namely environmental assessment, environmental management and supporting measures. Among the topics covered in this document, Recommendation No. 4 proposed to entrust the coordination of environmental affairs within the United Nations to a single body. Following this recommendation, the UN General Assembly adopted Resolution 2997 (XXVII) establishing the United Nations Environment Programme ('UNEP').[34] This subsidiary body of the United Nations was, until 2012, governed by Council consisting of fifty-eight UN Member States elected for three years by the General Assembly according to geographical distribution.[35] In 2012, membership of the Governing Council was extended to all members of the UN General Assembly. The day-to-day management of UNEP is entrusted to a Secretariat based in Nairobi (Kenya) and headed by an Executive Director. The creation of UNEP was originally intended, *inter alia*, to monitor the Stockholm Programme, including the administration of the 'Environmental Fund' contemplated in section III of Resolution 2997 (XXVII). More generally,

[34] See *supra* n. 32.

[35] At the Rio+20 Summit, in June 2012, it was decided to 'establish universal membership in the Governing Council [of UNEP]'. See 'The Future We Want', 11 September 2012, UN Doc. A/Res/66/288, para. 88(a) ('The Future We Want').

the role of UNEP is to promote international co-operation in environmental matters, including initiatives of normative codification. Over the years, normative entrepreneurship has become perhaps the main task of UNEP.

The impact of the Stockholm Conference was considerable, and it can be assessed at three levels.[36] At the domestic level, the conference generated momentum for the creation, in several States, of ministerial structures devoted to environmental problems.[37] At the regional level, it was also at this time that the European Community began to pass environmental legislation. At the international level, the Stockholm Conference not only brought environmental problems within the purview of the United Nations[38] but it also added momentum for the conclusion of many agreements,[39] covering areas such as the protection of habitats and sites,[40] trade in endangered species,[41] marine pollution[42] or the protection of migratory species.[43] These developments were followed by other instruments in the 1980s, such as Resolution 37/7 ('World Charter for Nature') adopted by the UN General Assembly on 28 October 1982[44] and, most importantly, the adoption of the UN Convention on the Law of the Sea, of 10 December 1982,[45] which devotes an entire part (Part XII) as

[36] See P. Galizzi, 'From Stockholm to New York, via Rio and Johannesburg: Has the Environment Lost its Way on the Global Agenda?' (2005/2006) 29 *Fordham International Law Journal*, 952, at 966–7.

[37] See H. Selin and B.-O. Linner, 'The Quest for Global Sustainability: International Efforts on Linking Environment and Development', *CID Graduate Student and Postdoctoral Fellow Working Paper No. 5*, January 2005, at p. 35.

[38] Paragraphs 2–3 of Resolution 2997 (XXVII) express the following recognition: 'Recognizing that responsibility for action to protect and enhance the environment rests primarily with Governments and, in the first instance, can be exercised more effectively at the national and regional levels, [r]ecognizing further that environmental problems of broad international significance fall within the competence of the United Nations system'. See R. Gardner, 'Can the UN Lead the Environmental Parade?' (1970) 64 *American Journal of International Law* 211.

[39] See A. O. Adede, 'The Treaty System from Stockholm (1972) to Rio de Janeiro (1992)' (1995) 13 *Pace Environmental Law Review* 33.

[40] Convention on Wetlands of International Importance especially as Waterfowl Habitat, 2 February 1971, 996 UNTS 245 ('Ramsar Convention'); Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, 1037 UNTS 151 ('WHC').

[41] Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 UNTS 243 ('CITES').

[42] Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 29 December 1972 ('London Convention'), subsequently modified by the Protocol of 7 November 1996 to the Convention of 1972 on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 7 November 1996, 1046 UNTS 120 ('London Convention'); International Convention for the Prevention of Pollution from Ships, 2 November 1973, amended by the Protocol of 17 February 1978, 1340 UNTS 184 ('MARPOL 73/78').

[43] Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, 1651 UNTS 333.

[44] World Charter for Nature, 28 October 1982, UN Doc. A/RES/37/7 ('World Charter for Nature').

[45] United Nations Convention on the Law of the Sea, 10 December 1982, 1833 UNTS 396 ('UNCLOS').

well as several other provisions to the protection and preservation of the marine environment.[46] Significantly, starting in the 1980s, environmental treaty-making moved from visible ('first generation') environmental problems, such as pollution and species protection, to more complex ones. Major illustrations of this trend include the adoption of the Vienna Convention on the Protection of the Ozone Layer (1985)[47] and its Montreal Protocol (1987),[48] as well as of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes (1989).[49]

Despite these important developments, the impact of the recommendations made at the Stockholm Conference on the targeted environmental variables remained well below expectations. As a result, the UN decided to re-examine matters of global environmental governance in the context of another major conference to be held in Rio de Janeiro (Brazil) in 1992.

1.5 The Rio Conference on Environment and Development (1992)

Ten years after the Stockholm Conference, the Governing Council of UNEP met to discuss the implementation of the Stockholm recommendations. This meeting resulted in the adoption of the Nairobi Declaration on 18 May 1982,[50] in which the Council reaffirmed the principles of the Stockholm Declaration (paragraph 1) recognising, at the same time, the insufficient implementation of the Action Plan adopted at Stockholm (paragraph 2). These conclusions were endorsed by the UN General Assembly, which decided to establish a special commission to study the prospects for environmental protection on the horizon for 2000 and beyond.[51] This commission, known as the 'Brundtland Commission' after its chair Gro Harlem Brundtland, issued an influential report entitled 'Our Common Future'.[52] The report introduced the concept of 'sustainable development', defined in the introduction to the second chapter as development 'which implied meeting the needs of the present without compromising the ability of future generations to meet their own needs'.[53] The General Assembly welcomed the Brundtland Report and, shortly thereafter, decided to convene a second international conference, this time

[46] See our analysis *infra* at Chapter 4.
[47] Vienna Convention on the Protection of the Ozone Layer, 22 March 1985, 1513 UNTS 293.
[48] Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 28 ('Montreal Protocol').
[49] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 22 March 1989, 1673 UNTS 57 ('Basel Convention').
[50] Report of the Governing Council on its Session of a Special Character (10–18 May 1982), 27 August 1982, UN Doc. A/RES/37/219, Annex II ('Nairobi Declaration').
[51] 'Process of Preparation of the Environmental Perspective to the Year 2000 and Beyond', 19 December 1983, UN Doc. A/RES/38/161.
[52] Report of the World Commission on Environment and Development, 'Our Common Future', 10 March 1987 ('Brundtland Report').
[53] *Ibid.*, para. 49.

not on the human environment but on the relationship between the environment and development.[54] The issue of development was indeed regaining strength on the international agenda.

The United Nations Conference on Environment and Development ('UNCED'), also known as the 'Earth Summit' or simply the 'Rio Conference', was held from 1 to 15 June 1992 in Rio de Janeiro, Brazil.[55] It was attended by delegations from 176 States, often represented by their heads of State or government, as well as from international organisations, NGOs and the private sector. The negotiations resulted in five main outcomes, namely a 'Rio Declaration on Environment and Development',[56] an ambitious long term programme of action called 'Agenda 21',[57] the adoption of two conventions focusing, respectively, on climate change[58] and biological diversity,[59] the creation of a Commission for Sustainable Development ('CSD')[60] under the aegis of the UN Economic and Social Council ('ECOSOC') and, finally, a 'Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests'.[61] Furthermore, the Rio Conference created the momentum for the crystallisation, in 1994, of an African initiative to adopt a multilateral convention on the fight against desertification,[62] as well as for the signing in 1995 of an agreement on the issue of highly migratory and straddling fish stocks.[63] Figure 1.2 summarises these outcomes.

[54] 'United Nations Conference on Environment and Development', 22 December 1989, UN Doc. A/RES/44/228.

[55] On the conference, see A. Kiss and S. Doumbé-Bille, 'La Conférence des Nations Unies sur l'environnement et le développement (Rio de Janeiro, 3–14 juin 1992)' (1992) 38 *Annuaire francais de droit international* 823; L. A. Kimball and W. Boyd, 'International Institutional Arrangements for Environment and Development: a Post-Rio Assessment' (1992) 1 *Review of Community and International Environmental Law* 295; M. Pallamaerts, 'International Environmental Law from Stockholm to Rio: Back to the Future' (1992) 1 *Review of Community and International Environmental Law* 254; P. H. Sand, 'International Environmental Law After Rio' (1993) 4 *European Journal of International Law* 377.

[56] 'Rio Declaration on Environment and Development', 13 June 1992, UN Doc. A/CONF.151/26. Rev.1 ('Rio Declaration').

[57] Report of the United Nations Conference on Environment and Development, A/CONF.151/26/Rev.l (Vol. l), Resolution 1, Annex 2: Agenda 21 ('Agenda 21').

[58] United Nations Framework Convention on Climate Change, 9 May 1992, 1771 UNTS 107 ('UNFCCC'). This treaty, concluded before the start of the Rio Conference, may still be considered part of the legacy of Rio as its conclusion was supported by the Earth Summit.

[59] Convention on Biological Diversity, 5 June 1992, 1760 UNTS 79 ('CBD').

[60] 'Institutional Arrangements to follow up the United Nations Conference on Environment and Development', 22 December 1992, UN Doc. A/RES/47/191.

[61] 'Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests', 14 August 1992, UN Doc. A/CONF/151/26 (vol. III) ('Forest Principles').

[62] United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 17 June 1994, 1954 UNTS 3 ('UNCCD').

[63] 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 High Migratory Fish Stocks, 4 August 1995, 2167 UNTS 3.

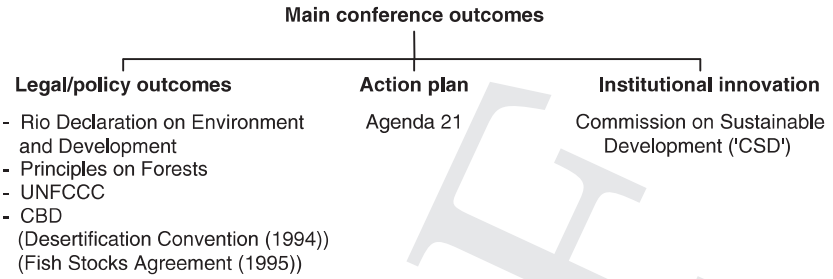

Figure 1.2: The Rio Conference (1992)

The two treaties opened for signature at Rio will be examined in Part II of this book. Here, the analysis focuses on the Rio Declaration, Agenda 21 and CSD. From a legal standpoint, the Rio Declaration is the most important outcome of all three. It consists of a short preamble followed by twenty-seven principles.[64] Since the times of the Stockholm Declaration, the centre of gravity has significantly shifted from environmental protection to the relationship between the latter and the renewed strength gained by development issues, now disconnected from the Communist ideology. In retrospective, however, the Rio Declaration strikes a fair balance between the often competing terms of the environment–development equation. A number of principles (e.g. Principles 3, 5, 6, 7–9, 12, 14, 20–23) present indeed a strong development accent. Yet, at the same time, the Rio Declaration provides the most generally accepted formulation of the main principles of international environmental law, including the principles of prevention (Principle 2), intergenerational equity (Principle 3), co-operation on global issues (Principles 7 and 27), precaution (Principle 15), environmental impact assessment (Principle 17), notification of disasters and activities with significant adverse environmental damage (Principles 18 and 19) and the polluter-pays principle (Principle 16). The Rio Declaration also touches on the issue of individual rights in environmental matters. Principle 1, while less forthright than its Stockholm counterpart, provides that human beings 'are entitled to a healthy and productive life in harmony with nature'. Perceived at the time as a regression, the link between human rights and environmental protection has since then grown in importance overshadowing the fears expressed in the early 1990s. In addition, the Declaration explicitly stated the main components of what can be called 'environmental democracy' in its Principle 10. This principle states that 'each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities ... as well as ... the

[64] On this instrument see J. E. Viñuales (ed.), *The Rio Declaration on Environment and Development. A Commentary* (Oxford University Press, 2015), Preliminary study.

opportunity to participate in decision-making processes'. Moreover, '[e]ffective access to judicial and administrative proceedings, including redress and remedy, shall be provided' (Principle 10). Finally, the Rio Declaration addresses questions of implementation stating the need, *inter alia,* to 'reduce and eliminate unsustainable patterns of production and consumption and to promote appropriate demographic policies' (Principle 8), encourage the transfer technology (Principle 9), ensure the participation of civil society (Principle 10), avoid using environmental considerations as an excuse to restrict trade (Principle 12), develop national and international instruments on compensation for environmental damage (Principle 13) and prevent the transfer of hazardous wastes to developing countries (Principle 14).

The implementation strategy developed at Rio is specified in the ambitious Agenda 21,[65] which includes a preamble followed by forty chapters, divided into four main sections (I. Social and Economic Dimensions; II. Conservation and Management of Resources for Development; III. Strengthening the Role of Major Groups; IV. Means of Implementation) over several hundred pages. Of course we cannot elaborate here on the detail of this lengthy text. Suffice it to note that the issue of development features regularly throughout. The first two paragraphs of the preamble set the tone by referring to a 'global partnership for sustainable development', which must be based on a 'balanced and integrated approach to environment and development questions'.[66] We find this emphasis throughout the text, particularly in the first section devoted to 'Social and Economic Dimensions'. From a legal perspective, Chapter 39 of Agenda 21 further elaborates on this 'integration' policy by formulating the principles that must guide the negotiation of future treaties in this field:

> The further development of international law on sustainable development, giving special attention to the delicate balance between environmental and developmental concerns ... and ... [t]he need to clarify and strengthen the relationship between existing international instruments or agreements in the field of environment and relevant social and economic agreements or instruments, taking into account the special needs of developing countries.[67]

The impact of this instrument, which seeks to guide the implementation of integration measures, has varied significantly from one topic to the other, perhaps due to its over-ambitious nature. However, it has provided a very useful chart of the vast swathes of environmental policies that could be adopted in fields as diverse as the protection of oceans, seas (Chapter 17) and water resources (Chapter 18), the management of chemicals and waste (Chapters 19 to 22), the protection of ecosystems (Chapters 11 to 13 and 15), the planning and management of land resources (Chapters 10 and 14), or even the management of biotechnology (Chapter 16).

[65] See N. A. Robinson (ed.), *Agenda 21: Earth's Action Plan Annotated* (New York: Oceana Publications, 1993).

[66] Rio Declaration, *supra*. 56, paras. 1.1 and 1.2. [67] Agenda 21, *supra* n. 57, para. 39.1.

The Rio Conference also led to the creation of a new institution by the ECOSOC, namely the Commission on Sustainable Development ('CSD').[68] Although the CSD has been replaced with a High-Level Political Forum, its twenty years of operation merit some comments. It was composed of representatives of fifty-three UN Member States elected by ECOSOC for a period of three years according to geographic distribution. Its mandate was essentially to monitor the implementation of Agenda 21, the Rio Declaration and the Johannesburg Plan, discussed later. Over time, the CSD restructured this broad mandate, focusing primarily on the consideration of reports by States regarding the implementation of the recommendations of Agenda 21, and on the development of guidelines on institutional co-operation in this area. Between 1993 and 2003, the CSD reviewed the various components of Agenda 21 in general. In 2003 it established a multi-year programme divided into seven periods of two years ('*implementation cycles*'), each focused on specific aspects of its mandate.[69] The first three periods were devoted respectively to water management and human settlements (2004/2005), energy development and the protection of the atmosphere (2006/2007) and the management of land resources in a broad sense (2008/2009). In its last years of operation, the CSD focused on issues related to transportation, resource extraction, the management of chemicals and waste, and models of production and consumption.

1.6 The World Summit on Sustainable Development (2002)

The Rio Conference has become a landmark in the history of global environmental governance, to a point that we refer informally to the conferences held thereafter as 'Rio+5' or 'Rio+10', or more recently, 'Rio+20'. Indeed, the Rio Conference has come to be seen not as an iteration of the Stockholm Conference twenty years on, but rather as a foundational moment in and of itself. If Stockholm symbolised the birth of modern international environmental law, Rio represents its 'coming of age'. Today, global environmental governance still operates within the broad principles developed at Rio, but it is at the World Summit on Sustainable Development held in Johannesburg in 2002 that the focus shifted from normative development to implementation as such.

In 1997, the UN General Assembly held a special session on the implementation of the Rio recommendations and came to the conclusion that, despite

[68] By virtue of resolution A/RES.47/191 of 22 December 1992, the UN General Assembly, following the recommendation contained in Chapter 38 of Agenda 21, requested ECOSOC to establish the CSD, while setting the mandate of this body. ECOSOC formally established the CSD by Resolution 1993/207 of 12 February 1993.

[69] Future programme, organisation and methods of work of the Commission on Sustainable Development: Annex. Programme of Work of the Commission on Sustainable Development, 25 July 2003, UN Doc. E/2003/29 and E/2003/L.32.

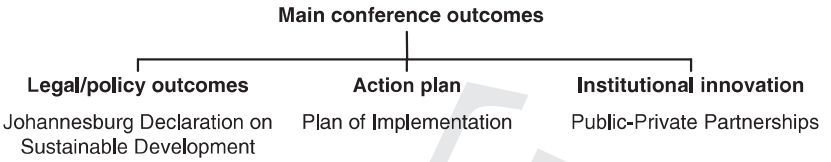

Figure 1.3: The Johannesburg Summit (2002)

the normative contribution of Rio, the environment had continued to deteriorate.[70] In other words, the main challenge now seemed to be the practical implementation of the recommendations and standards adopted the previous years. It is in this context that, in December 2000, the General Assembly decided to organise a third major conference in Johannesburg (South Africa).[71] Throughout the preparatory work, the emphasis was placed on a selected number of priority issues, with a stronger focus on developmental considerations than on environmental protection. This focus came to be known as the 'WEHAB' agenda, by reference to water and sanitation, energy, health, agricultural productivity and biodiversity.

The Johannesburg Conference, technically known as the 'World Summit on Sustainable Development', took place between August and September 2002. As with the two conferences discussed before, the outcomes of this Summit can be organised in three main categories depicted in Figure 1.3.

Regarding the first category, the contribution of the Summit was rather modest. The delegations adopted a 37-paragraph 'Political Declaration', the 'Johannesburg Declaration on Sustainable Development', which adds little to the normative development of international environmental law.[72] The most notable element of the Declaration is perhaps its emphasis on the social dimension of development as an integral component of sustainable development:

> Accordingly, we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels.[73]

[70] GA Resolution S/19–2, 28 June 1997, Annex, 'Programme for the Further Implementation of Agenda 21', para. 9. See also UNEP, *Global Environment Outlook*, 1997.

[71] See 'Ten-year Review of Progress Achieved in the Implementation of the Outcome of the United Nations Conference on Environment and Development', 20 December 2000, UN Doc. A/RES/55/199.

[72] Resolution 1: 'Political declaration', 4 September 2002, Report of World Summit on Sustainable Development in Johannesburg (South Africa), 26 August to 4 September 2002, UN Doc. A/CONF.199/20, p. 1, 2002 ('Political Declaration').

[73] *Ibid.*, paras. 5 and 18.

In fact, the Declaration is clearly directed towards the question of implementation.[74] Of note is the specific reference to the role of the private sector, particularly in paragraph 27, according to which 'in pursuit of its legitimate activities the private sector, including both large and small companies, has a duty to contribute to the evolution of equitable and sustainable communities and societies'.

The participation of the private sector is further elaborated on in the 'Plan of Implementation' also adopted in Johannesburg.[75] The plan is structured into 11 chapters addressing *tour à tour* the specific areas of the WEHAB agenda (poverty eradication, sustainable consumption/production, natural resource management, health, etc.), regional initiatives (focusing on Africa, Asia and Latin America) and the institutional framework for sustainable development.

The latter chapter expands the purview of the CSD to encompass the monitoring of multi-sectoral partnerships.[76] The issue of multi-sectoral partnerships appears throughout the document, either in connection with poverty eradication,[77] changing unsustainable patterns of production/consumption,[78] the management of natural resources[79] or economic globalisation,[80] to name just a few chapters of the plan. Reflecting the spirit of Johannesburg, these partnerships were seen as a way to implement the objectives of the Millennium Development Goals ('MDGs'), adopted by the UN General Assembly in 2000.[81] Over the years, more than 350 partnerships were set up, mainly in the fields of water, energy and education. From a geographic standpoint, the majority of these partnerships had a global scope (180), while most others had a regional (69) or sub-regional (79) one. However, it is still unclear whether resorting to PPPs has had a meaningful impact in practice.[82] Moreover, as discussed next, the CSD has been recently replaced with a High-Level Political Forum with a different mandate.

1.7 The Rio Summit (2012) and beyond

The adoption of the MDGs in 2000 brought renewed attention to questions of sustainable development. Although the focus of the Millennium Summit was clearly on economic and social development, the 'respect for nature' and the 'protect[ion] of our common environment' were also highlighted, by reference to the outcomes of the Rio Conference.[83] Accordingly, the MDGs included, as 'Goal 7' the need to '[e]nsure environmental sustainability', further specified by four

[74] See, notably, *ibid.*, paras. 34–7.
[75] Report of the World Summit on Sustainable Development at Johannesburg (South Africa), 26 August–4 September 2002, UN Doc. A/CONF.199/20 ('Implementation Plan').
[76] *Ibid.*, para. 145. [77] *Ibid.*, paras. 7(j) and 9(g). [78] *Ibid.*, para. 20(t).
[79] *Ibid.*, para. 25(g) and 43(a). [80] *Ibid.*, para. 49.
[81] 'Millennium Declaration', 13 September 2000, UN Doc. A/RES/55/2.
[82] See P. Glasbergen, F. Biermann and A. Mol (eds.), *Partnerships, Governance and Sustainable Development. Reflections on Theory and Practice* (Cheltenham: Edward Elgar, 2007).
[83] See Millennium Declaration, *supra* n. 81, paras. 6 and 21–3.

targets, two with an environmental accent (7A: mainstreaming of sustainable development policies and reversing the loss of environmental resources; 7B: reducing biodiversity loss) and two focusing on social development (7C: improving access to water and sanitation; 7D: improving the lives of slum dwellers).[84]

Since 2000, the UN General Assembly has met several times to review progress on the implementation of the MDGs. The rather modest progress recorded on the environmental protection front (particularly in connection with climate change mitigation and biodiversity loss), together with a Brazilian proposal to host another global conference, led the UN General Assembly to convene a new summit held at Rio de Janeiro in June 2012.[85] According to the enabling resolution, the objective of the 'Rio+20' Summit was

> to secure renewed political commitment for sustainable development, assessing the progress to date and the remaining gaps in the implementation of the outcomes of the major summits on sustainable development and addressing new and emerging challenges.[86]

In addition, the resolution identified two core 'themes to be discussed and refined during the preparatory process: a green economy in the context of sustainable development and poverty eradication and the institutional framework for sustainable development'.[87]

The preparatory process of this summit was largely overshadowed by the excessive media attention paid to the Copenhagen climate conference of December 2009, as well as the subsequent disillusionment caused by its failure. Moreover, the broad themes given to the summit and its elaboration into seven 'priority areas' (decent jobs, energy, sustainable cities, food security and sustainable agriculture, water, oceans and disaster readiness) and sixteen 'issues' ranging from trade to science and technology to population dynamics did not help focus the discussions. The outcome document, 'The Future We Want', confirms the shift, already signalled by the Johannesburg Summit, towards developmental concerns. It is still early to evaluate the impact of the outcome document on global environmental governance. Aside from the strengthening of UNEP, particularly through the extension of UNEP's Governing Council to universal membership (all members of the UN General Assembly) and the commitment to a larger budget,[88] the main contribution of this document concerns the efforts towards 'measuring' progress. 'Measuring' lies indeed at the heart of the three main achievements of the Summit: (i) a call for the development of 'sustainable development goals' for the post-2015 agenda ('SDGs'), which were effectively formulated in late July 2014;[89] (ii) the regular assessment of these goals by a

[84] See www.un.org/millenniumgoals/environ.shtml (accessed on 17 December 2012).
[85] 'Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development', 31 March 2010, UN Doc. A/RES/64/236, para. 20 ('Enabling Resolution').
[86] *Ibid.*, para. 20(a). [87] *Ibid.*, para. 20(a) *in fine*.
[88] The Future We Want, *supra* n. 35, para. 88. [89] *Ibid.*, paras. 245–51.

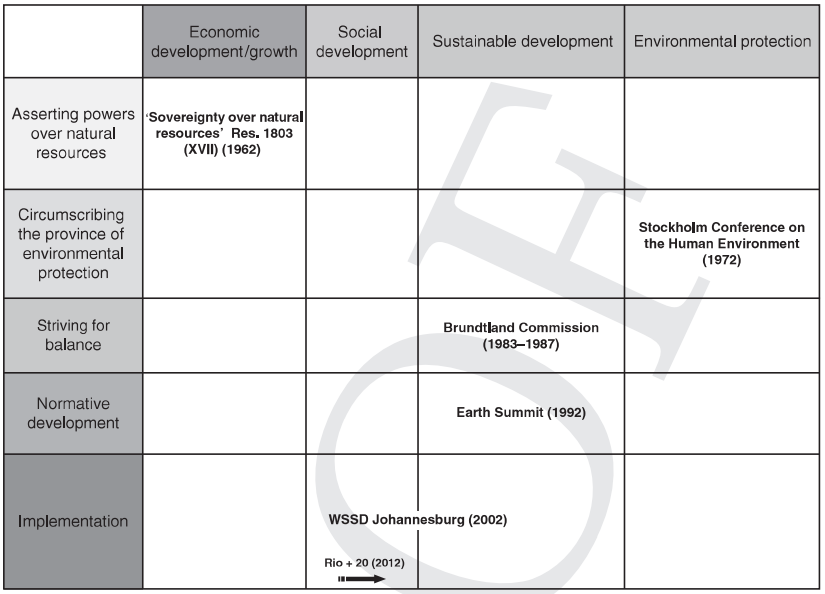

Figure 1.4: The 'sustainable development snake'

'High-Level Political Forum', which was established under the aegis of the UN General Assembly;[90] and (iii) a call for the development of broader measures of progress to 'complement' gross domestic product (GDP), which was still in progress at the time of writing.[91]

Despite the environmental significance of these and other elements, the 2012 Rio Summit tilted the balance between the two terms of the environment–development equation laboriously struck at the 1992 Rio Summit. Social and economic development is no longer seen as 'one' overarching objective of sustainable development,[92] but as 'the' main challenge. As noted by the outcome document, 'poverty eradication is the greatest global challenge facing the world today and an indispensable requirement for sustainable development'.[93] This shift has been confirmed by the SDGs, which places poverty eradication as the first goal out of the seventeen goals identified. The urgent need to fight poverty is, of course, not in question. It is the apparent hierarchy introduced between the pillars of sustainable development that must be carefully assessed. We may recall, in this context, the wording of Resolution 2849 (XXVI) of 1971, one of the early expressions of developing country distrust towards environmental considerations. The last paragraph of this resolution reiterated, indeed, '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

[90] *Ibid.*, para. 85(e). [91] *Ibid.*, para. 38.
[92] See e.g. Political Declaration, *supra* n. 72, para 11; Enabling Resolution, *supra* n. 85, preamble, para. 12.
[93] The Future We Want, *supra* n. 35, para. 2.

and of peace and world security'.[94] Figure 1.4 summarises the historical trajectory followed by the environment–development equation since the 1960s.[95]

Sustainable development is turning brownish. We are, of course, not back to square one. The important milestones mentioned in this chapter demonstrate that environmental considerations are far more present in the international and domestic policy agendas today than forty years ago. Yet, the environment–development equation remains unresolved. Fresh thinking is required to move beyond the (transitory) answers provided by the broad concept of sustainable development. This is perhaps the most important intellectual frontier in contemporary international environmental law.

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[94] Development and Environment, *supra* n. 28, para. 11.

[95] Source: J. E. Viñuales, 'The Rise and Fall of Sustainable Development' (2013) 22 *Review of Community and International Environmental Law* 3.

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