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Governance: States, International Organisations and Non-State Actors

CHAPTER OUTLINE

This chapter addresses the governance structure of international environmental law. It focuses on the main actors involved in the making, implementation and enforcement of international environmental law rules, namely:

1. states, which remain the primary actors in international environmental governance;
2. international organisations (comprising organisations within the UN system and under multilateral environmental agreements, operating across the global, regional and subregional levels); and
3. non-state actors (encompassing non-profit environmental groups, the scientific community, indigenous peoples, legal groups, individuals and the corporate sector, including transnational corporations).

As in human rights and other areas of international law, the trend in international environmental governance is towards a broadening of the range of actors recognised as having a legitimate governance role.

INTRODUCTION

A wide range of actors participate in those aspects of the international legal order which address environmental issues, including the negotiation, implementation and enforcement of international environmental agreements.[1] Apart from the state delegations that play a central role, a visitor to climate change or other negotiations would find international organisations and non-state actors actively involved. International environmental law is characterised by this phenomenon that, with the possible exception of the human rights field, renders it unique. Various reasons explain this state of affairs. States are involved because they are still the

[1] See generally D. Hunter, J. Salzman and D. Zaelke, *International Environmental Law and Policy* (New York: Foundation Press, 2011, 4th edn), chs. 2 and 5; D. Bodansky, J. Brunnée and E. Hey (eds.), *The Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007), chs. 4–5, 31–2; D. Bodansky, *The Art and Craft of International Environmental Law* (Cambridge, MA/London: Harvard University Press, 2010), ch. 6; M. A. Drumbl, 'Actors and Law-Making in International Environmental Law', in M. Fitzmaurice, D. M. Ong and P. Merkouris (eds.), *Research Handbook on International Environmental Law* (Cheltenham, UK: Edward Elgar, 2010), ch. 1; P. Birnie, A. A. Boyle and C. Redgwell, *International Law and the Environment* (Oxford: Oxford University Press, 2009, 3rd edn), chs. 2 and 5.

pre-eminent international legal persons. International organisations participate because they have been created by states to address particular environmental or related issues. Of the various non-state participants, the scientific community is involved because, to a great extent, international environmental law is driven by scientific considerations; the corporate sector is involved because of the significant implications which decisions taken at the global level have even for individual companies; and environmental non-governmental organisations (NGOs) are involved because they advocate for concerns often not pursued by states and see the need for active participation at the international level as the lines dividing local, national and global issues disintegrate. The participation of non-state actors in international environmental law has an established history, and is widely accepted.

The various actors have different roles and functions, both as subjects and as objects of international environmental law, including: participating in the lawmaking process; monitoring implementation, including reporting; and ensuring implementation and enforcement of obligations. The role of each actor turns upon its international legal personality and upon the rights and obligations granted to it by general international law and the rules established by particular treaties and other rules. The Rio Declaration and Agenda 21, as well as an increasing number of international environmental agreements, confirm the central role of international organisations and non-state actors in all aspects of the international legal process.[2]

The increasing complexity of global environmental governance poses significant challenges for the development, implementation and enforcement of international environmental law. For instance, the exponential growth in internationally active non-state actors over the last few decades raises questions over how to accommodate their perspectives and whether all such perspectives have equal legitimacy in international environmental governance processes.[3] Moreover, while states continue to be the principal actors in international environmental governance as the only actors with capacity to enter into international agreements, some groups of non-state actors – particularly large transnational corporations – may wield more power and influence in international environmental fora than smaller states. The behaviour of these actors is also not readily subjected to international legal controls despite the capacity for their activities to cause extensive environmental impacts. The resulting 'governance gap' remains a key limitation for the effectiveness of international environmental law.[4]

STATES

States are the primary subjects of international law. This remains the case in spite of the incursions made by international organisations into previously sovereign spheres of activity and the expanded role of non-state actors. States create, adopt and implement international legal principles and rules, establish international organisations, and permit the participation of other actors in the international legal process. There are currently 193 member states of the UN, another two states that are not members but participate as observers, and numerous entities that

[2] See Chapter 2, pp. 41–5.

[3] European Environmental Agency, *Global Governance – The Rise of Non-State Actors*, EEA Technical Report No. 4/2011 (2011). See also M. Finger and D. Svarin, 'Non-state Actors in Global Environmental Governance', in P. Dauvergne (ed.), *Handbook of Global Environmental Politics* (Cheltenham, UK: Edward Elgar, 2012) 285.

[4] J. Clapp, 'Global Environmental Governance for Corporate Responsibility and Accountability' 5 *Global Environmental Politics* 3 (2005).

do not possess the full characteristics of statehood, including dependent territories and non-self-governing territories.[5] The role played by the 193 UN member states in the development and application of international law depends on the subject being addressed and on the relationship of their vital interests to that subject, and on a complex blend of economic, political, cultural, geographical and ecological considerations.

Broadly speaking, states are divided by international, legal and institutional arrangements into developed countries, developing countries and economies in transition. Developed countries include the thirty-four member states of the OECD. The twenty-seven states that previously formed part of the 'Soviet bloc' have been referred to as 'economies in transition'.[6] The rest of the world, including major emerging economies such as China, India, Brazil and South Africa, are the developing states which form the Group of 77.[7] The Group of 77 sometimes works as a single negotiating bloc within the framework of the UN, although in relation to environmental matters their perspectives vary widely. For example, the Alliance of Small Island States (AOSIS) that emerged during the climate negotiations, advocates for more stringent controls on greenhouse gas emissions than are accepted by other members of the G77.[8] The UN also recognises a group of Least Developed Countries (LDCs), mostly in Africa,[9] which have the lowest socio-economic development of all countries and which receive special and differentiated treatment under many environmental treaties.

Within the UN system, states are also arranged into regional groupings, usually for the purpose of elections to UN bodies. The five groupings are: the Latin American and Caribbean Group; the African Group; the Asia-Pacific Group; the Western European and Others Group; and the Eastern European Group (although this grouping is seen as problematic as eleven states are also members of the EU). Frequently in environmental negotiations, these distinctions tend to break down as states pursue what they perceive to be their vital national interests, including their strategic alliances, which may be unrelated to environmental matters. The UNCED negotiations – and more recently the climate change negotiations dealing with post-2020 arrangements – illustrate the extent of the differences existing between and among developed states and developing states on particularly contentious issues: atmospheric emissions, production and trade in living modified organisms, conservation of marine mammals, protection of forests, institutional arrangements and financial resources.[10]

[5] The four characteristics which must traditionally obtain before an entity can exist as a state are: (a) a permanent population; (b) a defined territory; (c) a government; and (d) a capacity to enter into relations with other states: see 1933 Montevideo Convention on the Rights and Duties of States, Art. 1, 165 LNTS 19; R. Jennings and A. Watts (eds.), *Oppenheim's International Law* (Harlow: Longman, 1992, 9th edn), vol. 1, 120–3.

[6] For an indicative list of developed countries and 'economies in transition', see Appendix 1 to the 1992 Climate Change Convention, and Appendix 2 for a list of OECD members. Poland, Hungary, the Czech Republic and Slovakia, all formerly part of the 'Soviet bloc', have now joined the OECD and can now be considered developed countries. For a list of countries considered by the UN to be 'economies in transition', see the Report of the Secretary General, 'Integration of the Economies in Transition into the World Economy', 8 August 2008, A/63/256.

[7] The G77, as it is known, does not include all developing countries; there are currently 134 members.

[8] See Chapter 8, pp. 316–17.

[9] For a current list of countries currently considered to be LDCs, see www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf

[10] See C. Bail, R. Falkner and H. Marquard, *The Cartagena Protocol on Biosafety* (London: Royal Institute of International Affairs, 2002), Part II. On the international climate change negotiations and the 2015 Paris Agreement, see Chapter 8, pp. 316–30.

INTERNATIONAL ORGANISATIONS

International organisations involved in environmental law are established at the global, regional, subregional and bilateral levels. Almost all international organisations today have some competence or responsibility for the development, application or enforcement of international environmental obligations, including functions related to standard-setting. The decentralised nature of international organisations in the environmental field makes it difficult to assess their role by reference to any functional, sectoral or geographic criteria. They can be divided into three general categories: global organisations associated with the UN and its specialised agencies; regional organisations outside the UN system; and organisations established by environmental and other treaties. Within these categories, there are of course overlaps, since many of the organisations established in the third category were created by acts of the UN or its specialised agencies.[11]

History of International Organisational Arrangements

The role of international organisations has developed in a somewhat ad hoc manner. Early environmental agreements did not generally establish standing bodies to administer, or ensure implementation of, their provisions. Since 1945, the number of international environmental organisations has flourished, and they have usually been established at the subregional, regional or global level either to deal with specific environmental issues or, as is more often the case, by formally or informally adapting existing organisations to endow them with competence in the area of environmental issues. The Stockholm Conference and UNCED provided opportunities to establish more orderly and coherent arrangements for international organisations in addressing environmental matters. The Stockholm Declaration recognised that the growing global and regional environmental problems required 'extensive co-operation among nations and action by international organisations in the common interest'.[12] Principle 25 called on states to 'ensure that international organisations play a co-ordinated, efficient and dynamic role for the protection and improvement of the environment'. Following the Stockholm Conference, the UN General Assembly established the United Nations Environment Programme (UNEP), an environment secretariat and fund, and an Environment Co-ordination Board to coordinate UN environment activities.[13]

Between Stockholm and UNCED, the environmental activities of global and regional organisations proliferated, and many new organisations were created by environmental treaties and acts. The proliferation did not occur in the context of a coherent strategy, and there was little effort to ensure effective cooperation or coordination between them. Moreover, significant gaps existed, and many activities considered to be particularly harmful to the environment remained outside the scope of formal international institutional authority. Activities relating to the energy, mining and transport (other than air transport) sectors are examples of areas for which no single UN body yet has overall responsibility. The Brundtland Report recognised the gaps, and in 1989 a group of twenty-four developed and developing states adopted the Hague Declaration calling for

[11] See e.g. the Conference of the Parties to the 1987 Montreal Protocol (UNEP); the 1989 Basic Convention (UNEP); the 1992 Climate Change Convention (UNGA); the 1992 Biodiversity Convention (UNEP); and the Intergovernmental Panel on Climate Change (WMO/UNEP).

[12] Preambular para. 7. [13] See pp. 63–4.

the development of a new institutional authority, within the framework of the UN, with responsibility for preserving the Earth's atmosphere.[14]

UNCED, WSSD and the Rio+20 Summit

The UN General Assembly recognised the gaps, overlapping activities and lack of coordination in international environmental arrangements. In 1990, UNCED was called upon to review and examine the role of the UN system in dealing with the environment, to promote the development of regional and global organisations, and to promote international cooperation within the UN system in monitoring, assessing and anticipating environmental threats.[15] Three main issues needing international attention were identified: the role of institutions for environment and development within the UN system; institutional follow-up arrangements after UNCED, especially regarding Agenda 21; and the relationship of the UN system to other institutions in the field of environment and development.[16] During the UNCED negotiations, specific institutional proposals related to five functions and responsibilities: functions related to technical and operational matters; responsibilities for policymaking; coordinating functions; responsibilities for financial matters; and functions relating to the administration and implementation of international law.[17] Proposals on technical and operational functions focused on UNEP, the development of regional institutions in the UN system, and new technical functions, particularly environmental assessment, early warning and emergency response, and energy management.[18]

Chapter 38 of Agenda 21 proposed the framework for institutional arrangements. With regard to specific institutions, UNCED proposed the establishment of a UN Commission on Sustainable Development and the further development of UNEP and the United Nations Development Programme (UNDP). It affirmed the central role of the UN General Assembly and the Economic and Social Council (ECOSOC), and provided limited guidance on cooperative mechanisms between UN bodies, and between UN bodies and regional organisations and international financial organisations. Overall, it appears that UNCED missed the opportunity to set in motion a wholesale and effective review of activities and operations. UN General Assembly Resolution 47/191 (1992) endorsed the Agenda 21 recommendations on international institutional arrangements to follow up on UNCED and took the following decisions:

- requested ECOSOC to set up a high-level Commission on Sustainable Development;
- requested all UN specialised agencies and related organisations of the UN system to strengthen and adjust their activities, programmes and plans in line with Agenda 21;
- invited the World Bank and other international, regional and subregional financial and development institutions, including the Global Environment Facility, to submit regularly to the Commission on Sustainable Development reports on their activities and plans to implement Agenda 21;

[14] Declaration of The Hague, 11 March 1989, 28 ILM 1308 (1989). See also J. Ayling, 'Serving Many Voices: Progressing Calls for an International Environmental Organization', 9 *Journal of Environmental Law* 243 (1997). The issue of creation of a World Environment Organisation was raised again in the lead-up to the Rio+20 Summit. While the Summit did not agree on establishment of a new organisation, it issued a mandate for the strengthening of UNEP as the 'environmental pillar' of sustainable development.

[15] UNGA Res. 44/228, para. 15(q), (r) and (t) (1990).

[16] 'Institutional Proposals: Report by the Secretary General of the Conference' A/CONF.151/PC/102 (1991).

[17] *Ibid*., 5–54. [18] *Ibid*., 21–6.

- requested UNEP, UNDP, the United Nations Conference on Trade and Development (UNCTAD), the UN Sudano-Sahelian Office and the regional economic commissions to submit reports of their plans to implement Agenda 21 to the Commission on Sustainable Development; and
- endorsed the view of the UN Secretary General concerning the establishment of a High Level Advisory Board.

UNCED was reviewed at the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002. The main outcomes relating to the institutional framework to support sustainable development were recommendations to strengthen institutional arrangements, promote integration of the environmental, social and economic dimensions of sustainable development (referred to as 'pillars') into the work of UN regional commissions, enhance interagency coordination and the role of the Commission on Sustainable Development.[19]

The Rio+20 Summit another decade on included as a specific theme the 'institutional framework for sustainable development'.[20] Attention particularly focused on options for strengthening the 'environmental pillar' of sustainable development. In the lead-up to the Summit, a Consultative Group of Ministers or High-level Representatives on International Environmental Governance identified the following options for broader institutional reform: enhancing UNEP; establishing a new umbrella organisation for sustainable development; creating a specialised agency such as a world environment organisation; introducing possible reforms to the Economic and Social Council (ECOSOC) and the Commission on Sustainable Development; and enhanced institutional reforms and streamlining of present structures.[21] Ultimately states opted for a combination of these options; they committed to strengthening UNEP as 'the leading global environmental authority . . . within the United Nations system',[22] agreed to strengthen ECOSOC as 'a principal organ in the integrated and coordinated follow-up of the outcomes of all major UN Conferences',[23] and decided to create a new High-level Political Forum for Sustainable Development.[24] This forum replaced the Commission on Sustainable Development as the principal institution tasked with the implementation of sustainable development.

The Function and Role of International Organisations

International organisations perform a range of different functions and roles in the development and management of international legal responses to environmental issues, of a judicial, legislative or administrative nature. Specific functions depend upon the powers granted by the organisation's constituent instrument, as interpreted and applied in practice. Apart from very specific functions required of some particular organisations, international organisations perform five main functions.

First, they provide a forum for cooperation and coordination between states on matters of international environmental management. The participation of states in the activities of

[19] WSSD Plan of Implementation, paras. 120–40. [20] UNGA Res. 64/236 (31 March 2010), para. 20(a).
[21] Nairobi–Helsinki Outcome adopted by Consultative Group of Ministers or High-level Representatives on International Environmental Governance, Espoo, Finland, 23 November 2010, available at www.unep.org/environmentalgovernance/Portals/8/NairobiHelsinkifinaloutcome.pdf
[22] UNGA Res. 66/288, *The Future We Want*, para. 88. On the steps taken to deliver on this commitment since Rio+20, see pp. 63–4.
[23] *Ibid*., para. 83. On the role of ECOSOC in international environmental governance see further, pp. 69–70.
[24] *Ibid*., para. 84. The Forum and the Commission it replaced are discussed further at pp. 67–8.

international organisations is the principal means for consultation and the informal sharing of ideas and information that contribute towards building an international consensus for regional and global action. Thus, the formal negotiation of the 1992 Climate Change Convention followed extensive 'consciousness-raising' activities by a number of international organisations, including the UN General Assembly, the WHO, the WMO and the Intergovernmental Panel on Climate Change (IPCC), as well as the less formal settings of the World Climate Conferences held in 1979 and 1990.[25] International organisations thus contribute to developing the international agenda on environmental matters, broadening the participation of interested states, and encouraging technical research and development. Such organisations also play an important role in liaising with non-state actors.

The second function of international organisations is more formal, and relates to the provision of information. International organisations receive and disseminate information, facilitate information exchange, and provide for formal and informal consultation between states, and between states and the organisation. They also act as a conduit for the notification of emergencies and other urgent matters.[26] In some cases, the information function may include a formal fact-finding role.[27]

A third function of international organisations is to contribute to the development of international legal obligations, including 'soft law'. This function may take place informally, where the organisation acts as a catalyst for the development of legal and other obligations outside the organisation itself. Alternatively, it may take place formally and within the organisation, where the organisation adopts acts and decisions that can create legal obligations or which may contribute to the subsequent development of legal obligations.[28] International organisations develop policy initiatives and standards, may adopt rules that establish binding obligations or reflect customary law, and can establish new and subsidiary institutional arrangements.[29]

Once environmental and other standards and obligations have been established, institutions increasingly play a role in ensuring implementation of and compliance with these standards and obligations. Assisting in implementation takes a number of forms. It may be limited to receiving information from parties or other persons on an informal and ad hoc basis, or it may entail the regular receipt and consideration of reports or periodic communications from parties to international environmental treaties as a means of reviewing progress in implementation.[30] Assisting in implementation also takes place through the provision of advice on technical, legal and administrative or institutional matters. Under the 1987 Montreal Protocol, the parties seek to ensure implementation through the work of a non-compliance procedure including an Implementation Committee.[31] This provided a model for the more elaborate non-compliance procedure of the Kyoto Protocol, which comprises two subsidiary bodies, known as the Facilitation Branch and the Enforcement Branch.[32] The 1992 Climate Change Convention and 2015 Paris Agreement has its own Subsidiary Body for Implementation to assist the Conference of the

[25] See Chapter 8, pp. 299–300. [26] See Chapter 15, pp. 698–9. [27] See Chapter 5, pp. 170–1.
[28] See Chapter 4, pp. 116–18, for a discussion of the legal effects of acts of international institutions.
[29] Such as the creation of UNEP and the Commission on Sustainable Development by the UN General Assembly, and the Marine Environment Protection Committee by the IMO Assembly.
[30] See Chapter 5, pp. 148–52.
[31] *Ibid*., pp. 172–5; and Chapter 7, p. 289. The approach has been taken up by other conventions.
[32] Chapter 5, pp. 172–5; and Chapter 8, pp. 315–16. See Decision 27/CMP.1: 'Procedures and Mechanisms Relating to Compliance under the Kyoto Protocol', Report of the COP serving as the MOP to the Kyoto Protocol, Montreal, 28 November–10 December 2005, FCCC/KP/CMP/2005/8/Add.3, 30 March 2006.

Parties in the assessment and review of the implementation of the Convention and Agreement.[33] There are now a growing number of such institutional arrangements, as described in Chapter 5.

A fifth function of international institutions is to provide an independent forum, or mechanism, for the settlement of disputes, usually disputes between states. This may occur through the work of bodies with general competence, such as a Conference or Meeting of the Parties to an environmental agreement, adopting an authoritative interpretation of a provision,[34] or by the reference of an issue to a body created specifically to assist in dispute settlement through a judicial or quasi-judicial function, such as the International Court of Justice, the International Tribunal for the Law of the Sea, the European Court of Justice, human rights courts, or WTO dispute settlement panels.[35] Finally, some organisations are granted enforcement or compliance functions. To date, the only institution that has been granted extensive powers and international legal personality to engage in enforcement activities is the European Commission, which has brought several hundred cases to the European Court of Justice against member states alleging non-compliance with their environmental obligations.[36]

GLOBAL ORGANISATIONS

United Nations (www.un.org)

The UN, its specialised agencies, and subsidiary bodies, organs and programmes are the focal point for international law and institutions in the field of the environment. The UN Charter does not expressly provide the UN with competence over environmental matters. The relevant purposes of the UN include the maintenance of international peace and security, the adoption of measures to strengthen universal peace, and the achievement of cooperation in solving international economic, social, cultural or humanitarian problems.[37] Since the late 1960s, however, the practice of the organisation through its principal organs, in particular the General Assembly and the Economic and Social Council (ECOSOC), has been to interpret and apply these broad purposes as including the protection of the environment and the promotion of sustainable development. The UN is the principal forum for global environmental lawmaking and has played a central role in the development of international environmental law, its universal character making it the only 'appropriate forum for concerted political action on global environmental problems'.[38] Apart from the Secretariat, the UN has five principal organs: the General Assembly, the Security Council, ECOSOC, the Trusteeship Council and the International Court of Justice.[39] Each organ has, to differing degrees, addressed international environmental issues.

[33] Paris Agreement, Art. 10, see Chapter 8, p. 330.
[34] See e.g. CITES Conference of the Parties Res. 5.11 on the meaning of the words 'pre-Convention' specimen; see Chapter 10, p. 415.
[35] See Chapter 5, pp. 178–804; and p. 72. [36] See *ibid*., pp. 187–8.
[37] Charter of the United Nations, Art. 1(1)–(3).
[38] UNGA Res. 44/224 (1990); G. Smith, 'The United Nations and the Environment: Sometimes a Great Notion?', 19 *Texas International Law Journal* 335 (1984).
[39] The role of the ICJ is discussed in Chapter 5, pp. 180–4.

Coordination

From 1977 until 2000, coordination between the various UN organs and bodies at the Secretariat level took place under the Administrative Committee on Co-ordination (ACC) (coordination at the political level is a responsibility of ECOSOC), which was established in 1946 to supervise the implementation of the agreements between the UN and the specialised agencies and to ensure that the activities of the various bodies were coordinated.[40] The ACC comprised the heads of the specialised agencies and related bodies and organs that met several times a year under the chairmanship of the Secretary General. Together with an interagency board of Designated Officials on Environmental Matters, the ACC deliberated and adopted recommendations on the coordination of all environment-related programmes carried on by the participating agencies and bodies, and prepared an annual report to the UNEP Governing Council.

In October 1992, an Inter-Agency Committee on Sustainable Development (IACSD) was established to make recommendations to the ACC and to improve cooperation and coordination between the various UN bodies and organs on issues related to sustainable development, including environmental matters. The IACSD, attended by the senior officials of UN bodies most closely involved in the issues,[41] was established to rationalise subsidiary mechanisms for coordination, allocate and share responsibilities for implementing Agenda 21, monitor financial matters, and assess reporting requirements. In December 1992, the UN Secretary General established a new Department for Policy Co-ordination and Sustainable Development (DPCSD) in the Department of Economic and Social Development, which provided support to ECOSOC and to the Commission on Sustainable Development. This was later consolidated with other departments to form the Department of Economic and Social Affairs, which continues to act as the central coordinating mechanism for policy and programme development on sustainable development issues, including cooperative relationships with international organisations, NGOs, the academic community and the corporate sector. Agenda 21 recognised the important role of the Secretary General, and the need for the further development of the coordination mechanism under the ACC.[42]

The operation of the ACC was reformed in 2001 as part of former Secretary General Kofi Annan's wider reform efforts. The ACC was renamed the UN System Chief Executives Board for Co-ordination (CEB), a title intended to emphasise the high-level nature of the body and the shift to a more collegial body whose participants share a collective responsibility over an integrated system. The reforms also involved a transformation of the subsidiary structures. The previous multilayered and rigid arrangements of interagency committees were transformed and streamlined into two high-level committees, the High-Level Committee on Programmes and the High-Level Committee on Management. Following a review of the CEB in 2006–7, the United Nations Development Group was integrated as the 'third pillar' of the CEB to ensure that substantive policy coordination and oversight was brought to operational activities at country level. The three high-level committees report to the CEB biannually, and make recommendations on the basis of input received from flexible 'networks' of specialists in different areas of common concern, along with time-bound task-oriented interagency arrangements and thematic working

[40] ECOSOC Res. 13 (111) (1946).
[41] Senior officials from the following bodies participated: FAO, UNESCO, WMO, WHO, ILO, World Bank, IAEA, UNEP and UNDP; any other ACC member could also take part in discussions on relevant topics.
[42] Agenda 21, paras. 38.16 and 38.17.

groups.[43] These changes have involved the abolition of the previous subsidiary bodies, including the IACSD, and its subcommittees.

UN General Assembly

The UN General Assembly, which is the principal policymaking organ on issues of sustainable development follow-up, has the power to discuss any questions or matters within the scope of the UN Charter, to make recommendations to the member states or to the Security Council on any such questions or matters, and to promote international cooperation in the political, economic, social, cultural, educational and health fields and the progressive development of international law and its codification.[44] Although it does not have a specific environmental mandate, its proactive role led to its being identified by Agenda 21 as 'the principal policy-making and appraisal organ' on UNCED follow-up, having a regular review function.[45] This review was conducted by a Special Session of the General Assembly convened in June 1997, which produced a Programme for the Further Implementation of Agenda 21.[46] The Plan of Implementation adopted by the WSSD affirmed the need for the General Assembly to adopt sustainable development as a key element of the overarching framework for United Nations activities and its role in giving overall political direction to the implementation of Agenda 21 and its review.[47] This was reiterated in the Rio+20 Summit outcome document, *The Future We Want*.[48]

Although its resolutions are not formally binding, the General Assembly has taken decisions which have created new bodies, convened conferences, endorsed principles and substantive rules, and recommended actions.[49] Its contribution to the development of international environmental law is not to be underestimated. The General Assembly has long been involved in natural resource issues: the 1962 resolution on permanent sovereignty over natural resources was a landmark instrument in the development of international law, and has continued to influence debate and practice on the nature and extent of limitations imposed on states for environmental reasons.[50] It was only in the late 1960s, however, that the General Assembly began to address the protection of the environment and the conservation of natural resources, and since 1968 it has adopted a large number of resolutions contributing directly or indirectly to the development of substantive legal obligations and new institutional arrangements.

The General Assembly's early interest in environmental matters related to the protection of the marine environment,[51] the relationship between environment and development,[52] and cooperation on shared natural resources.[53] The General Assembly convened the 1972 UN

[43] Annual Overview Report of the United Nations System Chief Executives Board for Co-ordination for 2008/9: E/2009/67. See also Annual Overview Report of the United Nations System Chief Executives Board for Co-ordination for 2014/15: E/2015/71.

[44] UN Charter, Arts. 10 and 13(1). [45] Agenda 21, para. 38.9. [46] A/RES/S-19/2.

[47] WSSD Plan of Implementation, para. 125. On follow-up activities, see A/RES/57/253, A/RES/57/270A, A/RES/57/270B, A/RES/62/189 and A/RES/63/212.

[48] *Future We Want*, para. 81 (reaffirming the 'central position' of the UNGA as the chief deliberative, policymaking and representative organ of the UN and calling on the UNGA 'to further integrate sustainable development as a key element of the overarching framework for the United Nations').

[49] See E. Morgera, 'United Nations Activities', 41(1) *Environmental Policy and Law* 2 (2011), for a discussion of developments at the UNGA's 65th session in 2010.

[50] UNGA Res. 1803/62; see Chapter 6, p. 202.

[51] UNGA Res. 2467B (XXIII) (1968); UNGA Res. 2566 (XXIV) (1969); and UNGA Res. 3133 (XXVIII) (1973).

[52] UNGA Res. 2849 (XXVI) (1971). [53] UNGA Res. 3129 (XXIX) (1974).

Conference on the Human Environment,[54] and created UNEP later that year.[55] Other bodies created by the General Assembly include the United Nations Development Programme (UNDP), the International Law Commission, UNCED and the Commission on Sustainable Development (now replaced by the High-Level Forum on Sustainable Development). Other relevant bodies established by the UN, which are conspicuous by their more limited actions, include the Committee on the Development and Utilisation of New and Renewable Sources of Energy.[56] At a more informal level, the General Assembly also created the Open-Ended Informal Consultative Process on Oceans and the Law of the Sea, established on the recommendation of the Commission on Sustainable Development to facilitate the General Assembly's annual review of ocean affairs.[57]

Among the General Assembly resolutions on broad principles are those: declaring the historical responsibility of states for the preservation of nature;[58] noting the 1978 UNEP draft Code of Conduct;[59] adopting the 1982 World Charter for Nature;[60] requesting the UN Secretary General to prepare and regularly update a consolidated list of products whose consumption or sale has been banned, withdrawn, severely restricted or not approved by governments;[61] endorsing the Brundtland Report;[62] seeking to improve cooperation in the monitoring and assessment of environmental threats;[63] coordinating the activities of UN organisations with respect to fisheries policy;[64] declaring the fundamental values and principles of the international community in the Millennium Declaration;[65] and seeking to develop a holistic approach to sustainable development 'in harmony with nature'.[66] The General Assembly also convened UNCED,[67] the negotiations of the framework Convention on Climate Change,[68] the Convention on Drought and Desertification,[69] the negotiations leading to the 1995 Fish Stocks Agreement,[70] the WSSD,[71] the Millennium Summit[72] and the 2012 Rio+20 summit.[73] In 1997, it adopted the Watercourses Convention.[74] The General Assembly has only on a few occasions adopted resolutions on substantive matters, examples being the recommendation that moratoria should be imposed on all large-scale pelagic driftnet fishing on the high seas,[75] and support for the precautionary approach to the conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks.[76] The General Assembly's 1994 request for an advisory opinion on the

[54] UNGA Res. 2398 (XXII) (1968). [55] UNGA Res. 2997 (XXVII) (1972).
[56] UNGA Res. 37/250 (1982). This Committee was merged with the Committee on Natural Resources into the Committee on Energy and Natural Resources Development as established by ECOSOC Res. 1998/46 (1998).
[57] UNGA Res. 54/33 (1999); and UNGA Res. 57/33 (2002). See further www.un.org/depts/los/consultative_process/consultative_process.htm
[58] UNGA Res. 35/8 (1980). [59] UNGA Res. 34/188 (1979). [60] UNGA Res. 37/7 (1982).
[61] UNGA Res. 37/137 (1982). [62] UNGA Res. 42/187 (1987). [63] UNGA Res. 44/224 (1989).
[64] UNGA Res. 59/25 (2004).
[65] UNGA Res. 55/2 (2000). The summit adopted goals and a series of time-bound targets for their achievement that are known as the 'Millennium Development Goals'. One of these goals was to 'integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources'.
[66] UNGA Res. 65/165 (2010). [67] UNGA Res. 44/228 (1989). [68] UNGA Res. 45/212 (1990).
[69] UNGA Res. 47/188 (1992). [70] UNGA Res. 48/194 (1993); and UNGA Res. 50/24 (1995).
[71] UNGA Res. 55/199 (2000). See also A/RES/57/253 and A/RES/62/189 concerning implementation and follow-up of the WSSD Plan of Implementation.
[72] UNGA Res. 54/254. On follow-up activities, see A/RES/57/270A and A/RES/57/270B.
[73] UNGA Res. 64/236 (2010). On follow-up activities, see A/RE/67/203 and A/RES/67/213.
[74] UNGA Res. 52/229 (1997). This Convention is now in force; see further Chapter 9, pp. 361–3.
[75] UNGA Res. 44/225 (1989). See also Res. 45/197 (1990); Res. 46/215 (1991); and Res. 59/25 (2004).
[76] UNGA Res. 56/13 (2001).

legality of the use of nuclear weapons resulted in the ICJ affirming the existence of a general obligation of states not to cause transboundary environmental harm.[77]

UN Environment Programme (www.unep.org)

UNEP, based in Nairobi, was established in 1972 by General Assembly Resolution 2997 following the Stockholm Conference, and has played a significant catalytic role in the development of treaties and soft law rules. Its constituent instrument committed it to promote international environmental cooperation; to provide policy guidance for the direction and coordination of environmental programmes within the UN system; to receive and review reports from UNEP's Executive Director on the implementation of the UN's environment programmes; to review the world environment situation; to promote scientific knowledge and information and contribute to technical aspects of environmental programmes; and to maintain under review the impact of national and international environmental policies on developing countries.[78] As originally constituted, it comprised a Governing Council of fifty-eight members elected by the General Assembly and reporting to the General Assembly through ECOSOC, a Global Ministerial Forum convened annually to review important and emerging environmental policy issues (with the Governing Council constituting the forum either in its regular or in its special sessions) and an Environment Secretariat headed by the UNEP Executive Director.

UNEP's limited status as a UN programme (rather than a specialised agency or body) and its limited financial resources, constrained its ability to set the global environmental agenda. Following the Rio+20 Summit at which states committed to strengthening UNEP as the 'environmental pillar' of sustainable development, the UN General Assembly resolved to:

> Strengthen and upgrade the United Nations Environment Programme in the manner set out in subparagraphs (a) to (h) of paragraph 88 of the outcome document, entitled 'The future we want'.[79]

This includes establishing 'universal membership in the Governing Council' of UNEP and steps to ensure 'stable, adequate and increased financial resources' for the programme.[80]

The UNEP Governing Council hosted its final 27th Session in its new incarnation as a UN environmental programme with universal membership in Nairobi in February 2013, with all 193 UN member states automatically becoming members of the Governing Council. UNEP's plenary body – now known as the United Nations Environment Assembly (UNEA)[81] – held its first biennial meeting in June 2014 in Nairobi with participation from 170 national delegations, adopting decisions on air pollution, plastic debris in the oceans, chemicals, waste and the marine environment, as well as illegal trade in wildlife and environmental crimes.[82] As to the significance of UNEP's reconstitution as a programme of universal membership, some see this as 'a watershed development' and predict that UNEP 'could formally emerge as a global

[77] Chapter 6, p. 206. Other attempts to get the UNGA to request an advisory opinion from the ICJ on environmental matters – such as Palau's attempt in 2012 on the issue of climate change – have not been successful.
[78] UNGA Res. 2997 (XXVII) (1972), section I, para. 2. See generally C. A. Petsonk, 'The Role of the United Nations Environment Programme in the Development of International Environmental Law', 5 *American University Journal of International Law and Policy* 351 (1990).
[79] UNGA Res. 67/213 (2014), para. 4. [80] *Ibid.* [81] UNGA Res. 67/251.
[82] UNEA Res. 1/3 (2014). A second meeting of the UN Environment Assembly was held in May 2016.

environmental forum that acts as a global environmental authority as well as reflects the wishes and expectations of all the members of the United Nations'.[83]

Notwithstanding its continuing lack of status as a UN specialised agency, few observers would dispute that UNEP has made an important contribution to the development and application of international environmental law. UNEP promoted the Regional Seas Programme, which now includes more than thirty environmental treaties and numerous regional 'Action Plans',[84] and has been responsible for the development of several global environmental treaties, including the 1985 Vienna Convention and 1987 Montreal Protocol (ozone), the 1989 Basel Convention (hazardous waste), the 1992 Biodiversity Convention, the 2000 Biosafety Protocol, the 2001 POPs Convention, the 2003 Carpathians Convention, the 2010 Nagoya Protocol and the 2013 Minamata Mercury Convention. UNEP provides secretariat functions to these treaties and performs a supportive role in relation to several others including the 1998 Chemicals Convention (with FAO). UNEP has also been responsible for sponsoring numerous soft law instruments, including the 1978 draft principles on shared natural resources, offshore mining and drilling;[85] and instruments on land-based marine pollution;[86] the management of hazardous wastes;[87] environmental impact assessment;[88] and the international trade in chemicals.[89] It has also prepared guidelines for the development of domestic legislation on: liability, response action and compensation for damage caused by activities dangerous to the environment;[90] and access to information, public participation and access to justice in environmental matters.[91] UNEP has focused attention on the inadequacy of existing international legal instruments in the field of the environment and has sought to further develop international environmental law in a variety of ways. Among its most important initiatives has been the regular convening of the experts group that led to the Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme), as revised.[92] This continues to form the basis for many of its activities in the field of environmental law reform.

Resolutions of the UNEP Governing Council (now the UNEA) guide the development of UNEP's contribution to international law. These resolutions are supplemented by the activities of the Division of Environmental Law and Conventions, which together with the IUCN and FAO maintains the ECOLEX Internet database on environmental law.[93] The Division of Environmental Policy Implementation is responsible for issues relating to environmental governance, including compliance and enforcement. UNEP participates in the Global Environmental

[83] Bharat H. Desai, 'The Advent of the United Nations Environment Assembly', 19(2) *ASIL Insights* (15 January 2015).
[84] The Programme is administered by the UNEP Ocean and Coastal Areas Programme Activity Centre (OCA/PAC); see Chapter 11, pp. 465–72.
[85] 1982 Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction, UNEP GC Dec. 10/14/(VI) (1982).
[86] 1985 Montreal Guidelines for the Protection of the Marine Environment Against Pollution from Land-Based Sources, adopted by UNEP GC Dec. 13/18(II) (1985); see Chapter 11, pp. 476–8.
[87] 1987 Cairo Guidelines for the Environmentally Sound Management of Hazardous Wastes, UNEP GC Dec. 14/30 (1987); see Chapter 12, p. 571.
[88] 1987 Goals and Principles of Environmental Impact Assessment, adopted by UNEP GC Dec. 14/25 (1987); see Chapter 14, p. 658.
[89] 1987 London Guidelines for the Exchange of Information on Chemicals in International Trade, adopted by UNEP GC Dec. 14/27 (1987) and amended by UNEP GC Dec. 15/30 (1989); see Chapter 12, p. 586.
[90] UNEP/Env.Law/IGM.Lia/2/2 (2009). [91] UNEP/Env.Law/IGM.Acc/1/2 (2009).
[92] First adopted by UNEP GC Dec. 10/21 (1982), and most recently UNEP GC 25/CW/L.3 (2009); see Chapter 2, p. 36.
[93] www.ecolex.org

Monitoring System (GEMS) and collaborates in the operation of INFOTERRA.[94] UNEP also established, on an experimental basis, the UN Centre for Urgent Environmental Assistance, focusing on assessment of and responses to man-made environmental emergencies.[95] This has since merged with the activities of the UN Office for the Coordination of Human Affairs to form the Joint Environment Unit. UNEP's increasingly focused and enhanced role is also reflected in the decision granting it co-management responsibilities, with UNDP and the World Bank, of the Global Environment Facility.[96]

The need to enhance and strengthen the policy and coordination role of UNEP was recognised by UNCED in Chapter 38 of Agenda 21. The priority areas for UNEP set out in Agenda 21 included: strengthening its 'catalytic role', through the development of techniques such as natural resource accounting and environmental economics; promoting environmental monitoring and assessment; coordinating scientific research; disseminating information and raising general awareness; further developing international environmental law, including promoting implementation and coordinating functions; further developing environmental impact assessment; and providing technical, legal and institutional advice.[97] UNEP's present strategic priorities include: climate change, disasters and conflicts, ecosystem management, environmental governance, chemicals and waste, resource efficiency, and environment under review (focusing on the science–policy interface).[98]

UN Development Programme (www.undp.org)

The UN General Assembly established the UN Development Programme (UNDP) in 1965.[99] It is the principal channel for multilateral technical and investment assistance to developing countries. It is active in all economic and social sectors and has addressed environmental issues since the early 1970s. UNDP receives voluntary contributions from participating states, as well as donor co-financing, and additional finance from the business sector, foundations and NGOs. Its estimated available resources for 2014 to 2017 total approximately $24 billion USD. The role of UNDP in environmental programmes has been strengthened by its participation in the management of important programmes and institutions, such as the UN-REDD Programme,[100] and the Global Environment Facility. In 2001, UNDP adopted major reforms which realigned its global network around six thematic practice areas, including energy and environment, the focus of which was on building developing country capacity to protect natural resources wisely, acquire them affordably and use them sustainably. More recent strategic planning of the organisation seeks to respond to the goals of the Millennium Declaration, which set benchmarks for development and poverty alleviation to be achieved by 2015, and to strengthen post-2015 frameworks for development, disaster risk reduction and climate change.[101] The focus of UNDP in this respect is on three interconnected areas for development action: sustainability, democratic governance,

[94] Chapter 2, p. 31. [95] UNEP GC Dec. 16/9 (1991).
[96] Instrument for the Establishment of the Restructured Global Environment Facility, Geneva, 16 March 1994, 33 ILM 1273 (1994) (as amended in 1998, 2002, 2006, 2010 and 2014). For the latest March 2015 version, see www.thegef.org/gef/instrument
[97] Agenda 21, paras. 38.21 and 38.22. [98] UNEP, Medium Term Strategy 2014–2017 (2015).
[99] UNGA Res. 2029 (XX) (1965).
[100] See www.un-redd.org. REDD activities are designed to reduce emissions from deforestation and forest degradation in developing countries.
[101] UNDP, *UNDP in Action 2009/2010: Delivering on Commitments* (2010), 2, 5–7; UNDP, *Annual Report of the Administrator on the Strategic Plan to the Executive Board* (2010); UNDP Strategic Plan 2014–2017.

and climate and disaster resilience. The sustainability theme covers effective maintenance and protection of natural capital, sustainable access to energy and improved energy efficiency. The resilience theme encompasses both recovery from conflict-induced crises and building a much stronger ability to prepare for and deal with the consequences of natural disasters, especially as they are exacerbated by climate change.[102]

UNDP's role is to help developing countries strengthen their capacity to deal with these challenges at global, national and community levels, seeking out and sharing best practices, providing policy advice and linking partners through practical pilot projects on the ground. UNDP's work in the area of energy and the environment is supported by a trust fund known as the Environment and Energy Thematic Trust Fund.[103] UNDP also administers several special-purpose funds that are relevant to environmental matters,[104] and is particularly active in translating international efforts into grass-roots programmes and activities.

International Law Commission (www.un.org/law/ilc)

The International Law Commission (ILC) was established by the General Assembly in 1947 to promote the 'progressive development of international law and its codification'.[105] Since 1981, it has had thirty-four members, who are persons of recognised competence in the field of international law elected by the UN General Assembly (the original membership of fifteen was raised to twenty-one in 1956 and to twenty-five in 1961). Since 1949, the ILC has worked on over fifty topics. Apart from its important contribution to the development of general aspects of international law, including the law of treaties, state responsibility, and treaties between states and international organisations and between two or more international organisations, the ILC has also addressed environmental issues and contributed significantly to the development of international environmental law.[106] Its draft Articles on the legal regime of the high seas and territorial waters led to the development of the 1958 Geneva Conventions, which include provisions that have influenced the development of environmental law. The ILC's draft Articles on the Law of the Non-Navigational Uses of International Watercourses, completed in 1994, led to the adoption of the 1997 Watercourses Convention. In 2001, the ILC adopted draft Articles on the Responsibility of States for Internationally Wrongful Acts and draft Articles on the Prevention of Transboundary Harm from Hazardous Activities.[107] In 2002, the ILC decided to resume work on the liability aspects of the long-standing topic of International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law, and established a new

[102] UNDP Strategic Plan 2014–2017.

[103] From 2001 to 2004, the Energy and Environment Practice managed two separate Thematic Trust Funds (TTFs), one for Environment and one for Energy. As per Executive Board decision in 2004, the Energy TTF was merged with the TTF on Environment to form a new TTF on Environment and Energy as of the beginning of 2005. See www.undp.org/content/undp/en/home/ourwork/environmentandenergy/EETTF.html

[104] For example, the UN REDD Programme Fund and the Sustainable Energy for All Initiative.

[105] UNGA Res. 174 (II) (1947) (as subsequently amended), Art. 1. In this context, the 'progressive development of international law' means the 'preparation of draft conventions on subjects which have not yet been regulated by international law or in regard to which the law has not yet been sufficiently developed in the practice of States', and 'codification' means 'the more precise formulation and systematisation of rules of international law in fields where there already has been extensive state practice, precedent and doctrine' (Art. 15).

[106] See generally G. Hafner and H. Pearson, 'Environmental Issues in the Work of the ILC', 11 *Yearbook of International Environmental Law* 3 (2000); L. B. Arevalo, 'The Work of the International Law Commission in the Field of International Environmental Law' 32 *Boston College Environmental Affairs Law Review* 493 (2005).

[107] Chapter 16, pp. 769–70; Chapter 6, p. 211; and Chapter 15, p. 744.

project on Shared Natural Resources.[108] It adopted Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities in 2006,[109] and draft Articles on the Law of Transboundary Aquifers in 2008.[110] Environmentally relevant topics currently under consideration by the Commission include Protection of the Environment in relation to Armed Conflicts; Protection of the Atmosphere; and Protection of Persons in the Event of Disasters.[111]

High-Level Political Forum on Sustainable Development (sustainabledevelopment.un.org/hlpf)

The High-Level Political Forum on Sustainable Development (HLPF) was established following the Rio+20 Summit as the main UN platform on sustainable development. It is tasked with: providing political leadership, guidance and recommendations for sustainable development; undertaking follow-up and review of progress of implementation of sustainable development commitments; enhancing the integration of the economic, social and environmental dimensions of sustainable development; and ensuring the appropriate consideration of new and emerging sustainable development challenges. The HLPF is also the body tasked with implementation of the post-2015 development agenda and the sustainable development goals (SDGs).[112] The HLPF replaces the UN Commission on Sustainable Development (CSD) established by the General Assembly and ECOSOC in 1992 pursuant to the mandate in Agenda 21.[113] The decision to replace the CSD with the HLPF was taken at the Rio+20 Summit with the intention of elevating the consideration of sustainable development to the attention of heads of state and government.

The HLPF convenes heads of state and government every four years under the auspices of the General Assembly to promote sustainable development progress and address new challenges.[114] Each such meeting must result in 'a concise negotiated political declaration' to be submitted for consideration to the General Assembly.[115] The HLPF will also meet annually under the auspices of ECOSOC to consider thematic issues with participation from all member states of the UN and its specialised agencies.[116] The HLPF is assisted by a secretariat provided by the UN Department of Economic and Social Affairs. Like the CSD it replaced, the HLPF is intended to operate transparently and is open to NGO participation.[117] The HLPF is also specifically charged with strengthening the science–policy interface by bringing together dispersed information and assessments, which may take the form of a global sustainable development report.[118] The HLPF held its first meeting under the auspices of the General Assembly in September 2013, followed by annual meetings under the auspices of the ECOSOC in 2014 and 2015. Starting in 2016, the HLPF was charged with 'follow-up and implementation of sustainable development commitments and objectives, including those related to the means of implementation, within the context of the

[108] Chapter 16, p. 747.
[109] ILC, 'Report of the International Law Commission on the Work of Its Fifty-Eighth Session', 61 UN GAOR, UN Doc. A/61/10 (2006) (containing the Draft Principles).
[110] ILC, 'Report of the International Law Commission on the Work of Its Sixtieth Session', 63 UN GAOR, UN Doc. A/63/10 (2008) (containing the Draft Principles). The ILC also commenced but ultimately discontinued work on shared natural resources in the field of oil and gas. See ILC, 'Report of the International Law Commission on the Work of Its Sixty-First Session', 64 UN GAOR, UN Doc. A/64/10 (2009), Chapter VIII; 'Report of the International Law Commission on the Work of Its Sixty-Second Session', 65 UN GAOR, UN Doc. A/65/10 (2010), Chapter XII.
[111] ILC, 'Report of the International Law Commission on the Work of Its Sixty-Seventh Session', 70 UN GAOR, UN Doc. A/70/10 (2015).
[112] UNGA Res. 67/290 (2013); UNGA Res. 69/214 (2015). [113] UNGA Res. 47/191 (1992).
[114] UNGA Res. 67/290 (2013), para. 6. [115] *Ibid.* [116] Paras. 3, 4 and 7. [117] Para. 15. [118] Para. 20.

post-2015 development agenda'.[119] Such reviews are to be voluntary 'while encouraging reporting' and include developed and developing countries as well as relevant UN entities.[120]

Other Subsidiary Bodies Established by the General Assembly

The General Assembly has established numerous other bodies with less direct responsibility for environmental issues.

The UN Conference on Trade and Development (UNCTAD) was established by the General Assembly in 1964 as one of its organs.[121] UNCTAD's functions include promoting international trade with a view to accelerating the economic growth of developing countries, and formulating and implementing principles and policies on international trade and the related problems of economic development. The eighth session of UNCTAD, held in 1992, adopted 'A New Partnership for Development: The Cartagena Commitment', which committed UNCTAD to a programme of ensuring that growth and development, poverty alleviation, rural development and the protection of the environment are 'mutually reinforcing'.[122] UNCTAD has convened international commodity conferences that have led to the negotiation and adoption of international agreements on individual commodities, under the Integrated Programme for Commodities.[123] The Bangkok Declaration and Programme of Action, adopted in February 2000 at the tenth session of UNCTAD,[124] provide the main thrust for the current work of UNCTAD, as the focal point for the integrated treatment of development and the interrelated issues of trade, finance, investment, technology and sustainable development. The Bangkok Programme of Action made a number of specific recommendations on the focus of UNCTAD's work on trade and the environment.[125]

Other bodies created by the General Assembly which play a role in international environmental issues include: the United Nations Institute on Training and Research (UNITAR), whose role is to carry out training programmes and initiate research programmes;[126] the UN Population Fund (UNFPA), which promotes awareness of the social, economic and environmental implications of national and international population problems;[127] the Committee on Peaceful Uses of Outer Space (COPUOS) to review international cooperation in peaceful uses of outer space and study associated legal problems;[128] the Scientific Committee on Effects of Atomic Radiation (UNSCEAR) to consider the effects of radiation levels and radiation on humans and their environment;[129] and the United Nations Human Settlements Programme, known as UN-Habitat,

[119] Para. 8. [120] Para. 8(a). [121] UNGA Res. 1995 (XIX) (1964); www.unctad.org

[122] TD (VIII)/MISC.4 (1992), para. 63. See also paras. 118–23 (environment and development finance, and resource allocation and sustainable development); paras. 151–5 (environment and trade); and para. 208 (commodities and sustainable development).

[123] Important International Commodity Agreements (ICAs) include the International Cocoa Agreement (extended in 2012 until 2026) and the International Tropical Timber Agreement (renewed in 2006 for a ten-year period). ICAs have not always been successful, however, in safeguarding commodities produced in developing countries from market volatility (G. Gorton and K. G. Rouwenhorst, 'Facts and Fantasies about Commodity Futures' 62 *Financial Analysts Journal* 47 (2006)).

[124] Bangkok Declaration (TD/387) and Bangkok Programme of Action (TD/386), both adopted 18 February 2000.

[125] TD/386, para. 147. [126] UNGA Res. 1934 (XVIII) (1963); www.unitar.org

[127] UNGA Res. 2211 (XXI) (1966); ECOSOC Res. 1763 (LIV) (1966); renamed by UNGA Res. 42/430 (1987); www.unfpa.org

[128] UNGA Res. 1472 (XIV) (1959); the Committee's work has led to the negotiation and adoption of, inter alia, the 1967 Outer Space Treaty, the 1972 Space Liability Convention, the 1979 Moon Treaty and the 1992 Outer Space Principles: see Chapter 7, pp. 290–2; www.unoosa.org/oosa/en/ourwork/copuos/index.html

[129] UNGA Res. 913 (X) (1955); www.unscear.org

which has a mandate to promote socially and environmentally sustainable towns and cities.[130] Additionally, several human rights treaties have established committees to monitor implementation that report on their activities to parties and to the General Assembly. Of particular relevance to environmental matters are the Human Rights Committee (established under the 1966 International Covenant on Civil and Political Rights) and the Committee on Economic, Social and Cultural Rights (established under the 1966 International Covenant on Economic, Social and Cultural Rights).[131] In November 2002, the Committee on Economic, Social and Cultural Rights issued a General Comment recognising access to safe drinking water and sanitation as a human right, which stresses that water is a limited natural resource and a public commodity fundamental to life and health.[132]

Economic and Social Council (ECOSOC)

The Economic and Social Council (ECOSOC), which has fifty-four members serving three-year terms, has competence over international economic, social, cultural, educational and health issues, and related matters. Today it functions as the UN's principal body for coordination, policy review, policy dialogue and recommendations on economic, social and environmental issues, as well as for implementation of the Millennium Development Goals and their transition to the Sustainable Development Goals. In the wake of the Rio+20 Summit, ECOSOC underwent major reform to recognise its lead role in achieving balanced integration of the economic, social and environmental dimensions of sustainable development.[133] This includes the Council's role in convening the High-Level Political Forum on Sustainable Development and a new 'integration segment' of Council meetings.

Under the UN Charter, ECOSOC is mandated to make recommendations with respect to international economic, social, cultural, educational and health issues, and related matters to the General Assembly, to the UN members and to specialised agencies, and it can also prepare draft conventions.[134] ECOSOC has responsibility for coordinating the activities of specialised agencies, including UNEP and the HLPF, and obtaining regular reports from them.[135] This coordinating function was underlined by UNCED and affirmed by the Rio+20 Summit; the latter reaffirmed that ECOSOC is 'a central mechanism for ... promoting the implementation of Agenda 21 by strengthening system-wide coherence and coordination'.[136]

ECOSOC has contributed to the development of international environmental law. In 1946, it convened the 1949 UN Scientific Conference on the Conservation and Utilisation of Resources (UNCCUR), the predecessor to the Stockholm and Rio Conferences.[137] However, since it does not have any committees that focus exclusively on the environment, it has not itself served as a forum for important decisions on these matters. It has, however, established subsidiary bodies relevant to the environment.

[130] UNGA Res. 56/206 (2002) transformed the former Commission on Human Settlements and its secretariat, the United Nations Centre for Human Settlements (Habitat), including the United Nations Habitat and Human Settlements Foundation, into the United Nations Human Settlements Programme, known as UN-Habitat; www.unhabitat.org

[131] Chapter 17, pp. 817ff.

[132] United Nations Committee on Economic, Social and Cultural Rights, General Comment No. 15, adopted 26 November 2002.

[133] UNGA Res. 68/1 (2013). [134] UN Charter, Art. 62(1) and (3). [135] *Ibid.*, Arts. 63(2) and 64(1).

[136] Agenda 21, para. 38.10; *Future We Want*, para. 82.

[137] *UN Yearbook 1946–47* (1947), 491; see Chapter 2, pp. 26–7.

In particular, the five Regional Economic Commissions, established under Article 68 of the UN Charter, have contributed significantly to the development of international environmental law.[138] Under the auspices of the UN Economic Commission for Europe (UNECE),[139] regional treaties have been adopted on: transboundary air pollution;[140] environmental impact assessment;[141] industrial accidents;[142] protection of watercourses;[143] and public access and participation in environmental decision-making.[144] In 1995, the UNECE ministers adopted the Environmental Programme for Europe, the first attempt to set long-term environmental priorities at the pan-European level and to make Agenda 21 more operational in the European context.[145] This programme has evolved into the 'Environment for Europe' process. In 2007, a significant reform process of 'Environment for Europe' was initiated in order to ensure that it remains relevant and valuable, and to strengthen its effectiveness as a mechanism for improving environmental quality and the lives of people across the region.[146]

The other UN Regional Economic Commissions are responsible for Asia and the Pacific (ESCAP),[147] Africa (ECA),[148] Latin America and the Caribbean (CEPAL)[149] and Western Asia.[150] Although these Regional Economic Commissions have not yet promoted the negotiation of international environmental agreements, they play some role in developing 'soft' instruments and the regional preparatory arrangements for international conferences and meetings.

In 2000, ECOSOC established the UN Forum on Forests with a mandate to promote the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end.[151] Over the first five years of its operation, in addition to its more generalised activities, the Forum was to work on a mandate for developing a legal framework for all types of forests. This work resulted in the adoption of a Non-Legally Binding Instrument on All Types of Forests (now known as the UN Forests Instrument) on 28 April 2007. The instrument represented the first time that member states had agreed to an international instrument for sustainable forest management. The instrument was adopted by the UN General Assembly on 17 December 2007.[152]

Other relevant ECOSOC subsidiary bodies include: the Permanent Forum on Indigenous Issues, an expert advisory body with a mandate to consider indigenous issues relating to economic and

[138] See UNGA Res. 46/235 (1991).
[139] ECOSOC Res. 36 (IV) (1947). Its members are located in the European Union, non-EU Western and Eastern Europe, South-East Europe and Commonwealth of Independent States (CIS) and North America; www.unece.org
[140] 1979 LRTAP Convention and Protocols; see Chapter 7, pp. 261ff.
[141] 1991 Espoo Convention; see Chapter 14, pp. 675–6.
[142] See 1992 Industrial Accidents Convention; see Chapter 12, pp. 576–8.
[143] 1992 Watercourses Convention; see Chapter 9, pp. 361–3.
[144] 1998 Aarhus Convention; see Chapter 5, pp. 175–6; and Chapter 15, pp. 710–12.
[145] Environmental Programme for Europe, adopted at the 1995 Sofia Ministerial Conference on Environment for Europe.
[146] By agreement of the ministers at the 2007 Belgrade Ministerial Conference on Environment for Europe: Sixth Ministerial Conference 'Environment for Europe', Belgrade (10–12 October 2007). See the Chair's Summary: ECE/BELGRADE.CONF/2007/9 (16 October 2007).
[147] ECOSOC Res. 37 (IV) (1947), as the Economic Commission for Asia and the Far East; the name was changed to ESCAP by ECOSOC Res. 1895 (LVII) (1974); www.unescap.org
[148] ECOSOC Res. 671 (XXV) (1958) to develop 'concerted action for the economic development of Africa, including its social aspects, with a view to raising the level of economic activity and levels of living in Africa'; www.uneca.org
[149] ECOSOC Res. 106 (VI) (1948); www.cepal.org
[150] ECOSOC Res. 1818 (LV) (1973) as the Economic Commission for West Asia; ECOSOC Res. 1985/69 to ESCWA; www.escwa.org.lb
[151] ECOSOC Res. 2000/35. [152] UNGA Res. 62/98 (31 January 2008).

social development, culture, the environment, education, health and human rights;[153] the Commission on Population and Development;[154] the Commission on Social Development;[155] the Committee for Development Policy;[156] and the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals.[157] The now-disbanded Commission on Transnational Corporations carried out useful work examining the relationship between transnational corporations and international environmental obligations.[158]

Security Council

The Security Council, which has primary responsibility in the UN system for the maintenance of international peace and security,[159] has only addressed international environmental issues relatively recently. Its five permanent members and ten members elected for a period of two years can adopt legally binding resolutions, which give it the potential to develop a significant role.[160]

The Security Council's first foray into environmental affairs was in 1991, when it adopted a resolution holding Iraq liable for, inter alia, damage to the environment resulting from the invasion of Kuwait.[161] In the following years it met for the first time at the level of heads of government or state, and adopted a declaration that affirmed that 'non-military sources of instability in the economic, social, humanitarian and ecological fields have become threats to peace and security'.[162] In recognising the link between environment and security, the Security Council opened the door to further consideration of significant environmental matters, including environmental emergencies and their consequences.[163] In 2001, the Security Council addressed the link between the illegal exploitation of natural resources and armed conflict in Africa.[164] This has also been a theme of more recent resolutions, such as the Council's 2014 resolutions recognising wildlife poaching and illegal trade as threats to international peace and security.[165] The Security Council has examined the implications of climate change for security, holding its first ever debate on the impacts of climate change on peace and security in 2007.[166] This was

[153] ECOSOC Res. 2000/22. [154] ECOSOC Res. 150 (VII) (1948), Res. 87 (LVII) (1975) and Res. 1995/55.
[155] ECOSOC Res. 10 (II) (1946), Res. 1139 (XLI) (1966) and Res. 1996/7.
[156] ECOSOC Res. 1998/46, which renamed the former Committee on Development Planning originally established by ECOSOC Res. 1079 (XXXIX) (1965); www.un.org/esa/analysis/devplan
[157] ECOSOC Res. 1999/65, which reconfigured the former Committee of Experts on the Transport of Dangerous Goods into the current Committee.
[158] ECOSOC Res. 1913 (LVII) (1974). [159] UN Charter, Art. 24(1). [160] Art. 25.
[161] Security Council Res. 687/1991 (1991).
[162] Note by the President of the Security Council on 'The Responsibility of the Security Council in the Maintenance of International Peace and Security', UN Doc. S/23500, 31 January 1992, 2.
[163] Lorraine Elliott, 'Imaginative Adaptations: A Possible Environmental Role for the UN Security Council', 24(1) *Contemporary Security Policy* 47 (2003).
[164] Report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo: S/2001/357 and Security Council Res. S/RES/1355 (2001) and S/RES/1376 (2001).
[165] S/RES/2134 (2014) and S/RES/2136 (2014). See also Anne Peters, 'Novel Practice of the Security Council: Wildlife Poaching and Trafficking as a Threat to the Peace'. EJIL Talk! Blog of the *European Journal of International Law*, 12 February 2014. www.ejiltalk.org/author/anne-peters
[166] 5663rd meeting. See Francesco Sindico, 'Climate Change – A Security (Council) Issue?', 1 *Carbon and Climate Law Review* 26–31 (2007); Trina Ng, 'Safeguarding Peace and Security in Our Warming World: A Role for the Security Council', 15(2) *Journal of Conflict and Security Law* 275 (2010).

followed by other meetings on climate–security linkages such as the Security Council meeting in June 2015 on Climate Change as a Threat Multiplier for Global Security.[167]

Trusteeship Council

The Trusteeship Council was established to assist the Security Council and the General Assembly in performing the UN's functions under the International Trusteeship System of Chapter XII of the UN Charter. With the independence of Palau, the last remaining UN trust territory, the Trusteeship Council suspended operation on 1 November 1994 and now meets only as occasion requires, by its decision or the decision of its President, or at the request of a majority of its members or the General Assembly or the Security Council. Its basic objectives include the promotion of political, economic, social and educational advancement of the inhabitants of trust territories, without specifying environmental objectives.[168] While the Trusteeship Council did not play a direct role in the development of international environmental law, its obligation to respect these basic objectives provided a role in natural resource issues, including conservation. The role of the Trusteeship Council was therefore indirectly at issue in the case *Certain Phosphate Lands in Nauru*, where Nauru asked the ICJ to declare Australia's responsibility for breaches of international law relating to phosphate mining activities, including, inter alia, breaches of Article 76 of the UN Charter and the Trusteeship Agreement between Australia, New Zealand and the United Kingdom.[169]

International Court of Justice (www.icj-cij.org)

The environmentally related activities of the International Court of Justice (ICJ) are considered in more detail in Chapter 5. Through its judgments and advisory opinions, the ICJ has contributed to the development of international environmental law through general principles and rules elaborated in non-environmental cases and in cases concerned directly with environmental issues.[170] Cases in the past two decades raising significant environmental issues include the *Gabčíkovo–Nagymaros Project* (*Hungary/Slovakia*) case, the *Pulp Mills* case, the *Advisory Opinion on the Legality of the Use or Threat of Use of Nuclear Weapons*, the *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests* case (*New Zealand* v. *France*) and the *Whaling in the Antarctic (Australia* v. *Japan; New Zealand intervening)* decision. In July 1993, the ICJ established a seven-member Chamber for Environmental Matters, but this was disbanded in 2006.

[167] See further http://climateandsecurity.org/2015/07/08/un-security-council-meeting-on-climate-change-as-a-threat-multiplier-for-global-security

[168] See UN Charter, Art. 76. As the number of international trusteeships steadily declined, alternative functions for the Trusteeship Council were proposed. One idea, put forward by President Gorbachev of the Soviet Union in 1990, was to expand the trusteeship function to include responsibility for environmental protection in areas beyond national jurisdiction, the global commons. Although the suggestion received widespread attention, it was rejected at UNCED, and has not since been revived.

[169] Chapter 12, pp. 606–8.

[170] See Timothy Stephens, *International Courts and Environmental Protection* (Cambridge: Cambridge University Press, 2009).

United Nations Specialised Agencies and Related Organisations

The UN specialised agencies and related international organisations were established before environmental matters became an issue for the international community. It is therefore not surprising that none was designed to deal with, or given express competence over, environmental matters, and that consequently the environment has tended to play a somewhat peripheral role in their affairs. Since the specialised agencies were designed to deal with issues of concern to the international community in the post-war period, there are numerous significant gaps in their competence, including in particular energy, mining and transport matters. These gaps have been highlighted by the problem of climate change, which cuts across, and interconnects, many sectoral issues such as energy, transport, food security and fisheries management.

Food and Agriculture Organization (www.fao.org)

The Food and Agriculture Organization (FAO), which is based in Rome, was established in 1945 to collect, analyse, interpret and disseminate information on nutrition, food and agriculture (including fisheries, marine products, forestry and primary forest products), to promote national and international action, and to provide technical and other assistance.[171] The FAO is the only specialised agency with an environmental mandate in its constitution, namely to promote the 'conservation of natural resources and the adoption of improved methods of agricultural production'.[172] The FAO Conference and Council may initiate and approve conventions and agreements on food and agriculture,[173] and the FAO has developed soft law, including the operation with WHO of the World Food Programme,[174] the operation of a Global System on Plant Genetic Resources,[175] the adoption and operation of the 1985 International Code of Conduct on the Distribution and Use of Pesticides,[176] and adoption of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources.[177] The FAO also established (with WHO) the Codex Alimentarius Commission (discussed below). Additionally, the FAO has sponsored numerous international treaties[178] and created a number of international organisations in, for example, the fields of fisheries,[179] plant protection,[180] forest research[181] and locust control.[182] It has addressed forest issues, establishing the Tropical Forestry

[171] Constitution, Art. I. [172] Art. I(2)(c). [173] Art. XIV.
[174] FAO Conference Res. 1/16 of 24 November 1961; and UNGA Res. 1714 (XVI) (1961). [175] Chapter 10, p. 426.
[176] Chapter 12, p. 425. In 2013, the code was significantly updated and renamed the International Code of Conduct on Pesticide Management, FAO Conference Res. 3/2013 of 22 June 2013.
[177] See www.fao.org/news/story/en/item/174909/icode
[178] Seventeen such conventions or agreements have been approved under Art. XIV of the FAO Constitution, for example, the 1998 Chemicals Convention (see Chapter 12, pp. 587–9), the 2001 Plant Genetic Resources Treaty (see Chapter 10, pp. 424ff.) and the 2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (see Chapter 11, pp. 545–6).
[179] 1949 Agreement for the Establishment of a General Fisheries Council for the Mediterranean; 1969 Convention on the Conservation of the Living Resources of the Southeast Atlantic; 2001 Convention on the Conservation and Management of Fishery Resources in the South East Atlantic Ocean; 2006 Southern Indian Ocean Fisheries Agreement; 2009 Agreement on the Central Asian and Caucasus Regional Fisheries and Aquaculture Commission.
[180] 1951 Convention for the Establishment of the European and Mediterranean Plant Protection Organization; 1951 International Plant Protection Convention; 1956 Plant Protection Agreement for the South-East Asia and Pacific Region.
[181] 1959 Agreement for the Establishment on a Permanent Basis of a Latin American Forest Research and Training Institute; 2000 Desert Locust Commission.
[182] 1963 Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Eastern Region of Its Distribution Area in South-West Asia; 1965 Agreement for the Establishment of a Commission for Controlling the

Action Plan in 1985,[183] and more recently partnering with UNEP and UNDP in the UN-REDD Programme.[184] The FAO convenes international conferences which have led to the adoption and development of international action plans and strategies, some of which have subsequently led to binding international obligations. Examples include the 1981 World Soil Charter,[185] the 1984 World Soil Policy and Plan of Action,[186] the 1991 Strategy and Agenda for Action for Sustainable Agriculture and Rural Development,[187] the 1995 World Food Summit, the 2009 World Summit on Food Security and the 2013 Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources.[188] Other international plans of action of importance to the environment are the 1999 Plans of Action on seabirds, sharks and fishing capacity, the 2001 Plan of Action on illegal, unreported and unregulated fishing,[189] and the 2008 Plan of Action on a reform agenda within the organisation.[190] The 2013 Reviewed Strategic Framework of the FAO includes several environmentally relevant strategic objectives such as increasing and improving the provision of goods and services from agriculture, forestry and fisheries in a sustainable manner, and increasing the resilience of livelihoods to threats and crises.[191]

United Nations Educational, Scientific and Cultural Organization (www.unesco.org)

The United Nations Educational, Scientific and Cultural Organization (UNESCO), which is based in Paris, was established in 1945 to contribute to peace and security by promoting international collaboration through education, science and culture, including the conservation and protection of historic and scientific monuments and recommending necessary international conventions.[192] UNESCO played a role in convening and hosting the 1948 UNCCUR and has established institutions and programmes such as the Intergovernmental Oceanographic Commission in 1960, and the Man and the Biosphere Programme (under which the Lima Action Plan for UNESCO's Man and the Biosphere (MAB) Programme and its World Network of Biosphere Reserves 2016–2025 was adopted).[193] UNESCO was responsible for the adoption of, and performs secretariat functions for, the 1971 Ramsar Convention, the 1972 World Heritage Convention[194] and the 2001 Convention on the Protection of Underwater Cultural Heritage.[195]

Desert Locust in the Near East; and 1970 Agreement for the Establishment of a Commission for Controlling the Desert Locust in North-West Africa.

183 FAO's leadership of this Action Plan attracted serious criticism and the Plan itself was widely considered to have failed.

184 www.un-redd.org; see also Chapter 8, p. 315. 185 Chapter 10 p. 432. 186 Chapter 10, p. 432.

187 *Ibid*., p. 426. 188 See www.fao.org/news/story/en/item/174909/icode

189 FAO, *International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries International Plan of Action for the Conservation and Management of Sharks* (1999); FAO, *International Plan of Action for the Management of Fishing Capacity* (1999); and FAO, *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (2001).

190 FAO Conference Res. 1/2008, *Report of the Thirty-Fifth (Special) Session of the Conference*, C 2008/REP (Rome, 18–21 November 2008).

191 FAO, Reviewed Strategic Framework, C2013/7, 38th Session, Rome 15–22 June 2013.

192 Constitution, Art. I(2)(c).

193 UNESCO, Lima Action Plan for UNESCO's Man and the Biosphere (MAB) Programme and its World Network of Biosphere Reserves as adopted by the 28th MAB ICC on 19 March 2016, Lima, Peru. See generally B. Von Droste, 'UNESCO's Man and the Biosphere Programme: Two Decades of Sustainable Development', 2 *Colorado Journal of International Environmental Law and Policy* 295 (1991); Chapter 10, p. 392; and Chapter 2, p. 29.

194 Chapter 10, pp. 422–4. 195 *Ibid*., p. 422.

International Maritime Organization (www.imo.org)

The International Maritime Organization (IMO, formerly known as the Intergovernmental Maritime Consultative Organization) is based in London and was established in 1948. Its objectives, which originally did not refer to marine pollution, include: the provision of machinery for cooperation among governments on regulation and practice relating to technical matters of all kinds affecting shipping engaged in international trade; encouraging the general adoption of the highest practical standards in matters concerning maritime safety; and ensuring the efficiency of navigation and the prevention and control of marine pollution from ships.[196] IMO activities relating to marine pollution are mainly carried out through the Legal Committee and the Marine Environment Protection Committee (MEPC), established by the IMO Assembly in 1975.[197] The MEPC has broad powers to consider any matter to do with the prevention and control of marine pollution from ships, including the power to propose regulations and develop recommendations and guidelines.[198] The IMO has supported the negotiation and conclusion of a number of important environmental treaties, for which it provides secretariat functions. These relate to oil pollution,[199] pollution from ships,[200] civil liability and compensation for oil pollution and other damage,[201] emergency preparedness;[202] control and management of ships' ballast water and sediments;[203] and the environmentally sound recycling of ships.[204] The IMO also acts as secretariat to the London Convention and Protocol and has contributed to soft law by adopting non-binding guidelines, standards and codes relating to maritime safety and the protection of the marine environment.[205]

[196] Constitution, Art. 1(a), as amended.

[197] Assembly Res. A.358 (1975); L. de la Fayette, 'The Marine Environment Protection Committee: Conjunction of the Law of the Sea and International Environmental Law', 16 *International Journal of Marine and Coastal Law* 163 (2001).

[198] Constitution, Part IX, Arts. 38–42.

[199] 1954 International Convention for the Prevention of Pollution of the Sea by Oil; 1969 High Seas Intervention Convention (and a 1973 Protocol); see Chapter 11, pp. 486ff.

[200] MARPOL 73/78; 2001 International Convention on the Control of Harmful Anti-Fouling Systems on Ships; see Chapter 11, pp. 488–92.

[201] 1992 CLC (Chapter 16, pp. 779–81); 1992 Fund Convention (Chapter 16, pp. 781–3); 1996 HNS Convention and Protocol (Chapter 16, pp. 792–3); the 2001 Bunker Liability Convention (Chapter 16, pp. 788–9); 2007 Nairobi International Convention on the Removal of Wrecks (Kenya) 18 May 2007, in force 14 April 2015, IMO Doc. LEG/CONF. 16/19.

[202] 1990 Oil Pollution Preparedness Convention; 2000 Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances; see Chapter 11, pp. 503–4.

[203] International Convention for the Control and Management of Ships' Ballast Water and Sediments (London), 13 February 2004, not in force, IMO Doc. BWM/CONF/36; see Chapter 11, p. 494.

[204] International Convention for the Safe and Environmentally Sound Recycling of Ships (Hong Kong), 11 May 2009, not in force, IMO Doc. SR/CONF/45; see Chapter 11, p. 495.

[205] See e.g. the 1997 Guidelines to Assist Flag States in the Implementation of IMO Instruments, Assembly Res. A.847 (20); 2002 Revised GESAMP Hazard Evaluation Procedure for Chemical Substances Carried by Ships (adopted by IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, GESAMP Reports and Studies No. 64); 2005 Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (PSSAs), Assembly Res. A.982(24) (updating the 2002 Guidelines for the Designation of Special Areas under MARPOL 73/78 and Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas, Assembly Res. A.927(22)). There have also been a variety of guidelines developed under the Ballast Water Management Convention (see www.imo.org/en/OurWork/Environment/BallastWaterManagement/Pages/BWMGuidelines.aspx) and Ship Recycling Convention (see www.imo.org/en/OurWork/Environment/ShipRecycling/Pages/Default.aspx).

International Labour Organization (www.ilo.org)

The purposes of the International Labour Organization (ILO), which is based in Geneva and was originally established in 1919, include the protection of workers against sickness, disease and injury arising out of employment, and the adoption of humane conditions of labour.[206] To this end, the ILO has adopted a number of conventions which set international standards for environmental conditions in the workplace, including occupational safety and health,[207] as well as numerous non-binding recommendations and guidelines.[208]

World Meteorological Organization (www.wmo.int)

The World Meteorological Organization (WMO) was established in 1947 and is based in Geneva. Its purposes are to: facilitate worldwide cooperation in meteorological observation and hydrological and other geophysical observations related to meteorology; promote the establishment and maintenance of meteorological centres and the rapid exchange of meteorological information; promote the standardisation and uniform publication of observations and statistics; and encourage research and training.[209] The WMO operates the World Weather Watch Programme,[210] the World Climate Programme,[211] the World Climate Research Programme,[212] the Global Atmospheric Watch Programme,[213] and the Disaster Risk Reduction Programme.[214] The World Climate Programme supports the Global Climate Observing System (GCOS), which is sponsored jointly by the WMO, UNESCO's International Oceanographic Commission, UNEP and the International Council for Science (ICSU).[215] The Global Atmosphere Watch Programme (GAW) provides scientific data and information on the chemical composition of the atmosphere, its natural and anthropogenic change, and interactions between the atmosphere, the oceans and the biosphere. The GAW is the principal vehicle for the WMO's involvement in the GCOS.

[206] Constitution, Preamble.

[207] 1960 Ionising Radiations Convention; 1971 Benzene Convention; 1977 Occupational Hazards Convention; 1981 Occupational Safety Convention; 1985 Occupational Health Services Convention; 1986 Asbestos Convention; 1990 Chemicals Convention; 1993 Prevention of Major Industrial Accidents Convention; and 2001 Safety and Health in Agriculture Convention. See Chapter 12, pp. 509–11.

[208] *Fundamental Principles of Occupational Health and Safety* (2008, 2nd edn); 2005 ILO Code of Practice on Safety and Health in Ports; 2009 ILO Code of Practice on Safety and Health in Underground Coal Mines; and 2011 ILO Code of Practice on Safety and Health in Agriculture.

[209] Constitution, Art. 2.

[210] The World Weather Watch provides up-to-the-minute worldwide weather information through member-operated observation systems and telecommunications links.

[211] The objectives of the World Climate Programme are: to improve the understanding of climate processes for determining the predictability of climate, including its variability and change, identifying the extent of human influence on climate and developing the capability for climate prediction and projection; promote comprehensive observation of the global climate system and facilitate the effective collection and management of climate data and the monitoring, including the detection and assessment of climate variability and changes from global to local scales; enhance and promote the availability of and access to user-targeted climate services, especially prediction, by providing an international framework and establishing the operational elements of production and delivery systems for climate services; foster the effective application of climate knowledge and information for the better management of the risks of climate variability and change into planning, policy and practice and the provision of the required climate services; promote capacity development, particularly in developing and least developed countries, to enable them to contribute to the operation of GFOS and at the same time benefit from it.

[212] For more information, see www.wcrp-climate.org

[213] For more information, see www.wmo.int/pages/prog/arep/gaw/gaw_home_en.html

[214] For more information, see www.wmo.int/pages/prog/drr/index_en.html

[215] Results from the GCOS have underpinned the periodic reports of the Intergovernmental Panel on Climate Change. See e.g. *Status of the Global Observing System for Climate (GCOS-195)* (2015).

In 1988, the WMO, with UNEP, established the Intergovernmental Panel on Climate Change (IPCC), an intergovernmental body providing scientific, technical and socio-economic advice on climate change issues.[216] WMO also contributed to the establishment of the legal regimes for ozone depletion, climate change and transboundary atmospheric pollution.

International Civil Aviation Organization (www.icao.int)

The International Civil Aviation Organization (ICAO), based in Montreal, was established in 1947. Its objectives include the promotion of safe, efficient and economical air transport and generally the development of all aspects of international civil aeronautics.[217] To that end, it has adopted several relevant instruments, including international standards and recommended practices on aircraft engine emissions and on noise pollution.[218] Like many of the UN specialised agencies, the ICAO is playing an increasing role in climate change governance, with contributions particularly in the area of regulating emissions from international aircraft.[219]

UN Industrial Development Organization (www.unido.org)

The UN Industrial Development Organization (UNIDO), based in Vienna, was established in 1966.[220] Its objectives include the promotion and acceleration of inclusive and sustainable industrial development in developing countries and economies in transition.[221] In recent years, UNIDO has assumed an enhanced role in the sustainable development area by focusing its priorities around three themes: creating shared prosperity, advancing economic competitiveness and safeguarding the environment. Under this latter theme, UNIDO has played an important role in promoting energy efficiency and the uptake of renewable energy technologies, and provides assistance to member states in the areas of resource-efficient and low-carbon industrial production; clean energy access for productive use; and capacity-building for the implementation of multilateral environmental agreements.

World Health Organization (www.who.int)

The World Health Organization (WHO) was established in 1946 to ensure 'the attainment by all peoples of the highest possible level of health'.[222] It is based in Geneva. The WHO Assembly can adopt conventions or agreements for any matters within the competence of the organisation,[223] as well as regulations on sanitary and quarantine requirements, and on the safety standards, advertising and labelling of biological, pharmaceutical and similar products placed on international markets.[224] It may also make recommendations,[225] and non-binding standards have been adopted for drinking water and air quality.[226] In 1990, the WHO established the WHO

[216] See further www.ipcc.ch and discussion in Chapter 8, pp. 297ff. [217] Constitution, Art. 44(d) and (i).
[218] Arts. 37 and 38; see Chapter 8, pp. 332–3.
[219] Following the publication of the IPCC's *Special Report on Aviation and the Global Atmosphere* (1999), the ICAO Assembly requested the development of an ICAO carbon dioxide emissions standard ICAO A/Res. A37–19 (2010). While this standard has not yet been finalised, the organisation has recently developed a global offsetting scheme for aviation emissions: see further Chapter 8, pp. 332–3.
[220] UNGA Res. 2152 (XXI) (17 November 1966).
[221] The present mandate of the organisation is set out in the Lima Declaration, adopted by the 15th UNIDO General Conference, Lima, Peru, December 2013, available at www.unido.org/en/who-we-are/unido-in-brief.html
[222] Constitution, Art. 1. [223] Art. 19. [224] Art. 21; 1969 International Health Regulations. [225] Art. 23.
[226] 2011 Guidelines for Drinking Water Quality (4th edn), www.who.int/water_sanitation_health/publications/2011/dwq_guidelines/en; 2005 Air Quality Guidelines, www.who.int/phe/health_topics/outdoorair_aqg/en and 2014 Indoor Air Quality Guidelines: Household Fuel Combustion, www.who.int/indoorair/guidelines/hhfc/en

Commission on Health and Environment, which played a key role in ensuring that environmental health considerations were incorporated in Agenda 21. In 1993, the WHO Assembly requested an advisory opinion from the International Court of Justice on the legality of the use of nuclear weapons, in the context of its work on the effects of nuclear weapons on health and the environment.[227]

The WHO, together with the FAO, is responsible for the Food Standards Programme, which is administered by the Codex Alimentarius Commission.[228] The Codex Alimentarius Commission was established in 1963 with the purpose of making proposals to the FAO and the WHO on all matters relating to the implementation of the Joint FAO/WHO Food Standards Programme, the purposes of which are: to protect the health of consumers and to ensure fair practices in the food trade; to promote the coordination of all food standards work undertaken by international governmental and non-governmental organisations; to guide the preparation of and finalise standards and, after acceptance by governments, to publish them in a Codex Alimentarius either as regional or worldwide standards; and to amend published standards in the light of developments.[229] Over 180 states are members of the Commission, which has adopted commodity standards and general standards for a very large number of foodstuffs, including in relation to additives, pesticide residues, genetically modified foods and labelling. The Commission has also developed influential Working Principles for Risk Analysis based upon a three-tiered process of risk assessment, risk management and risk communication.[230] In varying degrees, the Codex standards are recognised and applied in international trade regimes, including by the WTO, NAFTA, the EU, APEC and MERCOSUR.

International Atomic Energy Agency (www.iaea.org)

The International Atomic Energy Agency (IAEA), which is based in Vienna, was established in 1956 to develop the peaceful uses of atomic energy.[231] Over time, the IAEA has taken on a more regulatory function with respect to nuclear energy, through the development of health and safety standards.[232] The IAEA is autonomous and not formally a specialised agency of the United Nations, but sends reports to the General Assembly and other UN organs. It is the only member of the UN 'family' dedicated to the energy sector, although its dual promotional and regulatory function appears anomalous.[233] Under the 1963 Treaty on the Non-Proliferation of Nuclear Weapons, the IAEA has responsibilities for safeguarding nuclear materials in non-nuclear-weapon states parties to it. The IAEA has also sponsored, and provides secretariat functions for, international conventions relating to liability,[234] the protection of nuclear material,[235] nuclear accidents,[236] the safety of nuclear installations,[237] and the safety of spent fuel and

[227] Chapter 5, p. 167 (the ICJ's opinion was that the request fell outside the competence of the organisation).
[228] See www.codexalimentarius.org; Chapter 12, p. 579. [229] Statute, Art. 1.
[230] FAO/WHO Food Standards Programme, *Codex Alimentarius Commission: Procedural Manual* (2015, 23rd edn), 108ff.
[231] Constitution, Art. II. [232] Chapter 12, p. 595.
[233] Another, non-UN international organisation in the energy field is the International Renewable Energy Agency, which was established in 2009 to promote the widespread and increased adoption and sustainable use of all forms of renewable energy. Its founding statute entered into force on 8 July 2010.
[234] 1963 IAEA Civil Liability Convention, Protocol and Supplementary Convention; Chapter 16, pp. 775–8.
[235] 1980 Convention on the Physical Protection of Nuclear Material, as amended; Chapter 12, p. 594.
[236] 1986 Convention on Early Notification of a Nuclear Accident, and the 1986 Convention on Assistance in the Event of Nuclear Accident or Radiological Emergency; Chapter 12, p. 599.
[237] 1994 Convention on Nuclear Safety; Chapter 12, pp. 595–6.

radioactive waste management.[238] The IAEA has also adopted numerous non-binding standards and recommendations on basic safety standards relating to, inter alia, radioactive discharges into the environment[239] and the disposal and transboundary movement of radioactive wastes.[240]

World Bank, International Monetary Fund, and World Trade Organization

The World Bank (comprising the International Bank for Reconstruction and Development (IBRD),[241] the International Development Association (IDA)[242] and the International Finance Corporation (IFC)),[243] the International Monetary Fund (IMF)[244] and the World Trade Organization (WTO)[245] are central players in international environmental law. The WTO and its activities are considered in detail in Chapter 18.

The World Bank, along with the six regional development banks,[246] has played a particularly important role in the elaboration of rules of international environmental law relating to the provision of financial resources for sustainable development. The World Bank and the regional banks are established by international treaty. As such, and having been endowed by their constituent instruments with certain capacities and functions on the international plane, they have a degree of international personality from which certain consequences flow, such as the power to make treaties and to undertake legal proceedings, and certain privileges and immunities under international law. As international legal persons, the multilateral development banks may also have rights and obligations under international law. In the *Reparations for Injuries* case, the ICJ ruled that the UN was 'a subject of international law and capable of possessing international rights and duties, and that it has the capacity to maintain its rights by bringing international claims'.[247] From the Advisory Opinion of the ICJ, it is clear that the multilateral development banks will have a sufficient degree of international personality to subject them to certain duties under international law, including duties which arise under the operation of general and specific

[238] Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (1997).

[239] Regulatory Control of Radioactive Discharges to the Environment (2000), Safety Guide No. WS-2-G.3.

[240] IAEA's Published Safety Standards for Radioactive Waste Management are available at www-ns.iaea.org/standards/documents/topics.asp?sub=170

[241] The IBRD was established in 1945 to promote the international flow of financial resources for productive purposes and to assist in the reconstruction of states after the Second World War. Its Articles of Agreement do not include any provisions specifically referring to environmental protection objectives or to the sustainable or rational use of natural resources. Its main objective today is to provide financial support, usually in the form of loans, for productive projects or to finance reform programmes that will lead to economic growth in its less developed member countries.

[242] The IDA was established in 1959 to promote economic development in the least developed countries by providing finance on more concessionary terms than the conventional loans provided by the IBRD. The IDA finances projects and reform programmes in countries that would otherwise not be able to service loans from the IBRD. It also provides grants to countries at risk of debt distress.

[243] The IFC was established in 1956, and became a specialised agency of the UN in 1957. The IFC is affiliated to the IBRD but has separate legal personality and maintains its capital separately from the IBRD. The IFC invests in private or partly governmental enterprises together with private investors, with a commitment to providing finance in the private sector. Three other associated organisations are based within the World Bank: the Consultative Group on International Agricultural Research (CGIAR); the International Centre for the Settlement of Investment Disputes (ICSID) (see Chapter 18, p. 904); and the Multilateral Investment Guarantee Agency (MIGA) (see Chapter 18, p. 916). In 1990, the Global Environment Facility was established by the World Bank, UNEP and UNDP.

[244] www.imf.org [245] www.wto.org

[246] African Development Bank (www.afdb.org/en); Inter-American Development Bank (www.iadb.org); Asian Development Bank (www.adb.org); Caribbean Development Bank (www.caribank.org); Islamic Development Bank (www.isdb.org); and the European Bank for Reconstruction and Development (EBRD) (www.ebrd.com).

[247] *Reparation for Injuries Suffered in the Service of the United Nations*, Advisory Opinion (1949) ICJ Reports 174.

rules of international environmental law. Multilateral development banks are under an obligation to comply with general principles of international law relating to the protection of the environment, and any failure to comply with such obligations might entail their international responsibility, as well as liability for damages.[248]

The World Bank group provides financial support for a wide range of projects, some of which have had notorious adverse environmental consequences. Large infrastructure projects, particularly relating to energy, transport and other infrastructure, such as the construction of the Polonoroeste dam in Brazil, have often resulted in significant environmental damage at the national and regional levels.[249] Smaller-scale projects, including in particular those relating to agriculture, transportation and energy, have also been criticised for failing to take into account long-term environmental costs, and for contributing to environmental degradation and unsustainable development in developing countries.

In 1980, largely as a result of strong criticism targeted at their environmentally unsound lending activities, the World Bank, five of the regional development banks, the EU, the OAS, UNEP and UNDP adopted a Declaration of Environmental Policies and Procedures Relating to Economic Development.[250] The Declaration reaffirmed their support for the principles and recommendations of the Stockholm Conference and agreed to institute procedures for the 'systematic examination' of all development activities under consideration for financing to ensure that appropriate measures were proposed for compliance with the Stockholm instruments. They also undertook to provide technical assistance to developing countries on environmental matters, and, if appropriate, to support project proposals that protect, rehabilitate or otherwise enhance the human environment.[251] This early commitment to achieving environmental protection is now reflected in more detailed requirements forming part of the internal laws of multilateral development banks and other funding agencies.

The World Bank has an Environment Department and in 2012 released its 'Environmental Strategy 2012–2022' focused on 'clean, green and resilient' development pathways.[252] Since the early 1980s, the Bank has also adopted a wide variety of Operational Policies (formerly Operational Directives) related to the environment. These include Policies on involuntary resettlement,[253] indigenous people,[254] environmental assessment,[255] Environmental Action Plans,[256] agricultural pest management,[257] natural habitats,[258] forests,[259] the safety of dams,[260] water resources management,[261] physical cultural resources,[262] projects on international

[248] Chapter 16, pp. 737ff. This possibility is important in the context of the attention which has been given to the development lending activities of multilateral development banks that have contributed to environmental despoliation and which have led to the adoption of measures to limit and prevent the adverse effects of their activities, including requirements for environmental impact assessment and environmental audits. Other, emerging approaches to dealing with the potential liability of the multilateral lender for the adverse environmental consequences of its activities include the use of 'environmental covenants' (see G. Rose, 3 *Yearbook of International Environmental Law* 545 (1992)) and agreements channelling liability to the recipient.

[249] See B. Rich, 'The Multilateral Development Banks, Environmental Policy and the United States', 12 *Ecology Law Quarterly* 681 at 705 (1985); see generally P. Le Prestre, *The World Bank and the Environment Challenge* (London: Associated University Presses, 1989).

[250] 1 February 1980, 19 ILM 524 (1980). [251] Paras. 3 and 4.

[252] World Bank Group, 'Toward a Clean, Green, Resilient World for All: A World Bank Group Environmental Strategy for 2012–2022', 1 January 2012, at www.worldbank.org/en/topic/environment/publication/environment-strategy-toward-clean-green-resilient-world

[253] Operational Policy (OP) 4.12 (as amended). [254] OP 4.10 (as amended).

[255] OP 4.01 (as amended). See Chapter 14, pp. 675–6. [256] OP 4.02 (as amended). [257] OP 4.09 (as amended).

[258] OP 4.04 (as amended). [259] OP 4.36 (as amended). [260] OP 4.37. [261] OP 4.07. [262] OP 4.11.

waterways,[263] and rapid response to crises and emergencies.[264] The Bank has also established a large number of funds and facilities with environment-related purposes, particularly in the area of so-called 'carbon financing'.[265] Examples include the Community Development Carbon Fund (providing financing for projects in the poorest countries that combine community development attributes with greenhouse gas emission reductions), the Partnership for Market Readiness (providing financing to developing countries to build their capacity to scale up national mitigation efforts) and the Forest Carbon Partnership Facility (providing funds towards capacity-building designed to assist developing countries in reducing emissions from deforestation and forest degradation).

Cooperative Arrangements

Apart from the subsidiary bodies of the specialised agencies which are referred to above, two other bodies merit special mention on account of their contribution to the negotiation and adoption of international legal instruments: the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)[266] and the Intergovernmental Panel on Climate Change (IPCC).[267] GESAMP (which is jointly run by the UN, UNEP, FAO, UNESCO, WHO, WMO, IMO, IAEA, UNIDO and UNDP) has a mandate to conduct research and carry out assessments on the state of the marine environment, and to make appropriate recommendations, and has produced numerous reports since 1982.[268] In 2001, following completion of an in-depth review of GESAMP, major changes to the operation of the organisation were recommended in order to establish it as 'the world's first choice for marine protection advice and guidance'.[269] It is envisaged that the 'new' GESAMP will periodically publish consensus statements on issues regarding the degradation of the marine environment.

The IPCC was established to assess the available scientific information on climate change, to assess the environmental and socio-economic impacts of climate change, and to formulate response strategies. Its efforts are organised under three working groups (Physical Scientific Aspects; Impacts, Vulnerability and Adaptation; and Mitigation Options) and a task force (on National Greenhouse Gas Inventories). It has produced five Assessment Reports on Climate Change (1990, 1995, 2001, 2007 and 2014), contributing to the ongoing intergovernmental negotiations around the 1992 Climate Change Convention, its 1997 Kyoto Protocol, and post-2020 arrangements. The IPCC has also produced a large number of special and methodological reports and technical papers on particular aspects of climate change and mitigation strategies, such as aviation, carbon capture and storage, extreme weather events and land use.

Other Global Institutions

Beyond the activities of the UN and specialised agencies, in law of the sea matters, the 1982 UN Convention on the Law of the Sea (UNCLOS) established two new international institutions which address environmental aspects of the law of the sea. These are the International Tribunal for the Law of the Sea (ITLOS), which has made a significant contribution to maritime

[263] OP 7.50 (as amended). [264] OP 8.00.
[265] See generally: www.worldbank.org/en/topic/climatechange/brief/world-bank-carbon-funds-facilities
[266] www.gesamp.org [267] www.ipcc.ch
[268] Reports of GESAMP are available from www.gesamp.org/publications. See also Chapter 11, p. 455.
[269] See 'The New GESAMP: Science for Sustainable Oceans', www.gesamp.org/data/gesamp/files/media/Publications/GESAMP_The_New_GESAMP__Science_for_Sustainable_Oceans/gallery_1043/object_1043_large.pdf

environmental law,[270] and the International Seabed Authority, which has promulgated regulations that establish environmental conditions for deep seabed prospecting.[271]

Regional and Subregional Organisations

Regional organisations outside the UN system also play an important role in the development of international environmental law. In application of the principle that different environmental standards could be applied to different geopolitical regions, the role of regional organisations has increased significantly over the past decade. They are frequently able to provide the flexibility needed to accommodate special regional concerns, as was recognised by the Brundtland Report's call for regional organisations to do more to integrate environmental concerns into their activities. The regional rules of international environmental law and institutional arrangements are particularly well developed in the Arctic and Antarctic regions; accordingly, organisations related to those developments are considered in more detail in Chapter 13.

Some international organisations are not regional, in a strict geographic sense, and are not UN agencies, bodies or programmes. These include the Commonwealth Secretariat, the Organisation of Islamic Cooperation, the Arab League (whose members are in Africa and Asia) and the Organization of Petroleum Exporting Countries (OPEC). While each maintains an interest in environmental matters, none has adopted rules of international environmental law or ensured their enforcement, although they provide assistance to states on environmental matters.

Europe and the OECD

In the European context, apart from the EU, three organisations play an important role in the development of regional rules: the Council of Europe, the Organization for Economic Co-operation and Development (OECD) and the Organization for Security and Cooperation in Europe (OSCE). The European Bank for Reconstruction and Development (EBRD) has emerged as an innovative contributor to European environmental law and policy; it is noteworthy, in a broader global context, as the first multilateral development bank to have a constituent instrument which expressly requires it to fulfil environmental protection and sustainable development objectives.[272]

OECD (www.oecd.org)

The OECD (formerly the Organization for European Economic Co-operation, OEEC) was established in 1960 to promote policies designed to achieve in its member countries the highest sustainable economic growth, sound economic expansion in the process of economic development, and the expansion of world trade.[273] Increasingly, the membership of the OECD extends beyond Europe giving it global reach: nine of its thirty-four members are not European states.[274] In addition, the OECD has offered 'enhanced engagement' to Brazil, China, India, Indonesia and

[270] Chapter 5, pp. 184–5. [271] Chapter 11, pp. 497–8.

[272] See further 23 ILM 1083 (1990), Art. 1; P. Sands, 'Present at the Creation: A New Development Bank for Europe in the Age of Environment Awareness', 84 *Proceedings of the American Society of International Law* 77 at 88–91 (1990).

[273] Convention on the OECD, Art. 1.

[274] Accession discussions are also ongoing with Colombia, Lithuania, Costa Rica and Latvia.

South Africa, and maintains cooperative relations with more than seventy non-member countries.

In 1974, the members of the OECD established an International Energy Agency,[275] following the establishment of the Nuclear Energy Agency in 1957.[276] The OECD Convention does not specify environmental protection among its functions, but the organisation began to address environmental issues in 1970 following the decision to create an Environment Committee as a subsidiary body to the Executive Committee, which is itself subordinate to the OECD Council. The OECD became involved in environmental issues for three reasons. First, certain environmental issues were recognised to be intrinsically international; second, differences among member countries' environmental standards were considered to have implications for trade and economic and political relations; and, third, it was felt that some member countries might be insufficiently prepared to address certain environmental problems.

The OECD Council may adopt two types of act: decisions, which are binding on its members; and recommendations, which are non-binding. Both acts are usually adopted with the support of all members.[277] Since 1972, the OECD Council has adopted a large number of environmental measures, and has promulgated a treaty on liability for nuclear damage.[278] These environmental acts have influenced the development of national environmental legislation in the member countries, and have often provided a basis for international environmental standards and regulatory techniques in other regions and at the global level. The OECD Council has frequently been at the forefront of developments in international environmental policy, focusing on the relationship between economic and environmental policies;[279] defining and endorsing the 'polluter pays' principle;[280] providing early support for the development and use of environmental assessment techniques;[281] promoting economic instruments;[282] endorsing the use of integrated pollution prevention and control;[283] using pollutant release and transfer registers;[284] the environmentally sound management of waste;[285] 'greening' public procurement;[286] and safety testing and assessment of manufactured nanomaterials.[287] The OECD Council has also

[275] 1974 Agreement on an International Energy Programme Including Establishment of the International Energy Agency, Paris, 18 November 1974, 27 UST 1685 at Chapter IX.

[276] EEC Decision of 20 December 1957, subsequently approved by OECD Decision of 30 September 1961.

[277] Arts. 5(a) and (b) and 6(1).

[278] 1960 Convention on Third Party Liability in the Field of Nuclear Energy and 1963 Supplementary Convention; see Chapter 16, pp. 773–4.

[279] 1972 Recommendation Guiding Principles Concerning International Economic Aspects of Environmental Policies, C(72)128; see Chapter 6, pp. 217ff.

[280] 1974 Recommendation on the Implementation of the Polluter-Pays Principle, C(74)223; 1989 Recommendation on the Application of the Polluter-Pays Principle to Accidental Pollutions, C(89)88(Final), 28 ILM 1320 (1989); see Chapter 6, pp. 240–1.

[281] 1974 Recommendation on the Analysis of the Environmental Consequences of Significant Public and Private Projects, C(74)216; 1979 Recommendation on the Assessment of Projects with Significant Impact on the Environment, C(79)116; 1985 Recommendation on Environmental Assessment of Development Assistance Projects and Programmes, C(85)104; Recommendation on Measures Required to Facilitate the Environmental Assessment of Development Assistance Projects and Programmes, C(86)26(Final); see Chapter 14, p. 658.

[282] 1991 Recommendation of the Council on Use of Economic Instruments in Environmental Policy, C(90)177(Final); see Chapter 4, p. 132.

[283] 1990 Recommendation on Integrated Pollution Prevention and Control, C(90)164(Final); see Chapter 4, pp. 139–40.

[284] 1996 Recommendation on Implementing Pollutant Release and Transfer Registers (PRTRs), C(96)41(Final).

[285] 2004 Recommendation on the Environmentally Sound Management of Waste, C(2004)100.

[286] 2002 Recommendation on Improving the Environmental Performance of Public Procurement, C(2002)3; Recommendation on Good Practices for Public Environmental Expenditure Management, C(2006)84.

[287] 2013 Recommendation on the Safety Testing and Assessment of Manufactured Nanomaterials, C(2013) 107.

supported the broad use of techniques for ensuring the availability of environmental information,[288] and for developing cooperation on transfrontier pollution.[289] Substantive issues have also been addressed, and the OECD Council has developed a broad range of decisions or recommendations on many sectors of environmental protection, including air quality,[290] water quality,[291] energy,[292] waste,[293] chemicals,[294] noise,[295] tourism[296] and multinational enterprises.[297]

Council of Europe (www.coe.int)

The Council of Europe was established in 1949 to achieve greater unity between members 'for safeguarding and realising their ideals and principles which are their common heritage and

[288] 1979 Recommendation on Reporting on the State of the Environment, C(79)114; 1991 Recommendation on Environmental Indicators and Information, C(90)165(Final); 1998 Recommendation on Environmental Information, C(98)67(Final); Recommendation on Information and Communication Technologies and the Environment, C(2010)61.

[289] 1974 Recommendation on Principles Concerning Transfrontier Pollution, C(74)224; 1976 Recommendation on Equal Right of Access in Relation to Transfrontier Pollution, C(76)55; 1977 Recommendation on Implementation of a Regime of Equal Right of Access and Non-Discrimination in Relation to Transfrontier Pollution, C(77)28; 1978 Recommendation on Strengthening International Co-operation on Environmental Protection in Transfrontier Regions, C(78)77(Final).

[290] 1974 Recommendation on Guidelines for Action to Reduce Emissions of Sulphur Oxides and Particulate Matter from Fuel Combustion in Stationary Sources, C(74)16(Final); 1974 Recommendation on Measures Required for Further Air Pollution Control, C(74)219; 1985 Recommendation on Control of Air Pollution from Fossil Fuel Combustion, C(85)101.

[291] 1971 Recommendation on the Determination of the Biodegradability of Anionic Synthetic Surface Active Agents, C(71)83(Final); 1974 Recommendation on the Control of Eutrophication of Waters, C(74)220; 1974 Recommendation on Strategies for Specific Water Pollutants Control, C(74)221; 1978 Recommendation on Water Management Policies and Instruments, C(78)4(Final).

[292] 1974 Recommendation on Energy and the Environment, C(74)222; 1976 Recommendation on Reduction of Environmental Impacts from Energy Production and Use, C(76)162(Final); 1977 Recommendation on the Reduction of Environmental Impacts from Energy Use in the Household and Commercial Sectors, C(77)109(Final); 1979 Recommendation on Coal and the Environment, C(79)117; 1985 Recommendation on Environmentally Favourable Energy Options and Their Implementation, C(85)102.

[293] 1976 Recommendation on a Comprehensive Waste Management Policy, C(76)155(Final); 1978 Recommendation on the Re-Use and Recycling of Beverage Containers, C(78)8(Final); 1980 Recommendation on Waste Paper Recovery, C(79)218(Final); 1984 Decision and Recommendation on Transfrontier Movements of Hazardous Waste, C(83)180(Final); 1986 Decision/Recommendation on Exports of Hazardous Wastes from the OECD Area, C(86)64(Final); 1991 Decision/Recommendation on Reduction of Transfrontier Movements of Waste, C(90)178(Final); Decision Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations, C(2001)107(Final).

[294] 1973 and 1987 Decision and Recommendation on Further Measures for the Protection of the Environment by Control of Polychlorinated Biphenyls, C(82)2(Final); 1973 Recommendation on Measures to Reduce All Man-Made Emissions of Mercury to the Environment, C(73)172(Final); 1974 Recommendation on the Assessment of the Potential Environmental Effects of Chemicals, C(74)215; 1979 Recommendation on Guidelines in Respect of Procedures and Requirements for Anticipating the Effects of Chemicals on Man and in the Environment, C(77)97(Final); 1981 Decision on the Mutual Acceptance of Data in the Assessment of Chemicals, C(81)30(Final); 1982 Decision on the Minimum Pre-Marketing Set of Data in the Assessment of Chemicals, C(82)196(Final); 1989 Decision and Recommendation on Compliance with Principles of Good Laboratory Practice, C(89)87(Final); 1983 Recommendation on the Protection of Proprietary Rights to Data Submitted in Notifications of New Chemicals, C(83)96(Final); 1983 Recommendation on the Exchange of Confidential Data on Chemicals, C(83)97(Final); 1983 Recommendation on the OECD List of Non-Confidential Data on Chemicals, C(83)98(Final); 1984 Recommendation on Information Exchange Related to Export of Banned or Severely Restricted Chemicals, C(84)37(Final); 1988 Decisions on the Exchange of Information Concerning Accidents Capable of Causing Transfrontier Damage, C(88)84(Final); 1991 Decision on the Co-operative Investigation and Risk Reduction of Existing Chemicals, C(90)163(Final).

[295] 1985 Recommendation on Strengthening Noise Abatement Policies, C(85)103.

[296] Recommendation on Environment and Tourism, C(79)115.

[297] Decision on the OECD Guidelines for Multinational Enterprises, C(2000)96(Final); Recommendation of the Council on Principles of Corporate Governance, C(2015) 84.

facilitating their economic and social progress'.[298] The Council of Europe now has forty-seven members across the whole of Europe. Without an explicit environmental mandate, the Council of Europe has adopted a number of acts and policies relating to environmental protection through its organs, the Committee of Ministers and the Parliamentary Assembly. The Parliamentary Assembly has adopted many non-binding recommendations on environmental issues.[299] The Council of Europe's contributions include several treaties. Apart from an early environmental treaty restricting the use of detergents,[300] the Council of Europe has adopted treaties on: the protection of animals;[301] the protection of archaeological and cultural heritage;[302] the conservation of wildlife;[303] transfrontier cooperation;[304] civil liability for environmental damage;[305] the protection of the environment through criminal law;[306] and landscape.[307] The European Convention on Human Rights and the European Social Charter, both of which have contributed to environmental jurisprudence and policy, were also adopted under the auspices of the Council of Europe.[308]

Organization for Security and Co-operation in Europe (www.osce.org)

The Final Act of the 1975 Conference on Security and Co-operation in Europe (CSCE) encompassed cooperation on the protection and improvement of the environment, and the institutions established thereunder may accordingly address matters relating to the environment.[309] The 1990 Charter of Paris for a New Europe affirmed the close relationship between economic liberty, social justice and environmental responsibility.[310] In 1994, the CSCE was renamed the OSCE, and its institutions now comprise a Ministerial Council, a Permanent Council, a Forum for Security Cooperation and a Conflict Prevention Centre.[311] Although the OSCE recognises the close connection between environmental issues and security, so far, its institutions do not appear to have been apprised of a security issue arising out of an environmental conflict, although there was some suggestion that the dispute between Hungary and Slovakia over the Gabčíkovo–Nagymaros Project might be referred to OSCE procedures. OSCE, together with UNEP, UNDP,

[298] Statute of the Council of Europe, as amended, Art. 1(a).

[299] These relate to, inter alia, general environmental policy (see Recommendations 888 (1980), 910 (1981), 937 (1982), 958 (1983), 998 (1984), 1078 (1988), 1130 (1990), 1131 (1991), 1284 (1996), 1823 (2008)); marine pollution (Recommendations 585 (1970), 946 (1982), 997 (1984), 1003 (1985), 1015 (1985), 1079 (1988), 1388 (1998), 1558 (2002)); fisheries (Recommendations 913 (1981), 825 (1984), 842 (1985), 1320 (1997)); biodiversity and climate change (Recommendations 966 (1983), 978 (1984), 1033 (1986), 1048 (1987), 1918 (2010)); freshwater resources (Recommendations 1052 (1987), 1128 (1990), 1224 (1993)); air pollution (Recommendations 977 (1984), 1006 (1985), 926 (1989)); environment and human rights (Recommendations 1614 (2003), 1862 (2009)); environment and health (Recommendation 1863 (2009)); and noise and light pollution (Recommendation 1947 (2010)).

[300] 1968 European Agreement on the Restriction of the Use of Certain Detergents in Washing and Cleaning Products, Strasbourg, 16 September 1968.

[301] 1968 European Convention for the Protection of Animals During International Transport.

[302] 1969 European Convention on the Protection of the Archaeological Heritage (revised 1992); 2005 Council of Europe Framework Convention on the Value of Cultural Heritage for Society.

[303] 1979 Berne Convention; see Chapter 10, pp. 444–6.

[304] 1980 European Outline Convention on Transfrontier Co-operation Between Territorial Communities or Authorities; and Protocols (1995, 1998, 2009).

[305] 1993 Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment; see Chapter 16, pp. 799–800.

[306] 1998 Convention on the Protection of the Environment Through Criminal Law; see Chapter 16, pp. 761–2.

[307] 2000 European Landscape Convention; see Chapter 10, p. 423.

[308] Chapter 16, p. 760.

[309] 14 ILM 1292 (1975). The ICJ has held that support for the Helsinki Final Act constitutes an expression of *opinio juris* (*Military and Paramilitary Activities in and Against Nicaragua* (1986) ICJ Reports 3 at 100 and 107).

[310] 30 ILM 190 (1991).

[311] Chapter 5, p. 167.

the UNECE and the Regional Environment Centre, has developed the Environment and Security Initiative, with NATO as an associated partner. This initiative provides a framework for cooperation on transboundary environmental issues and promotes security through environmental cooperation and sustainable development.[312] The OSCE is also active in the field of good governance, playing an important role in raising public awareness of Europe-wide treaties, such as the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters.

Africa

The principal African organisation that addresses environmental matters is the African Union. Its predecessor, the Organization of African Unity (OAU), was established in 1963 to promote the unity and solidarity of African states and to coordinate interstate cooperation to achieve a better life for the peoples of Africa.[313] The Constitutive Act of the African Union, adopted in 2000, articulates similar objectives, but also seeks to promote 'sustainable development at the economic, social and cultural levels'.[314] The OAU supported the adoption of a treaty on the conservation of nature and natural resources,[315] and a treaty on the trade in and management of hazardous waste.[316] The OAU also sponsored the 1981 African Charter on Human and Peoples' Rights[317] and the 1991 African Economic Community,[318] both of which have environmental provisions. The African Union has also adopted a number of conventions in the environmental field. These include the Convention of the African Energy Commission (2001), and a revised version of the African Convention on the Conservation of Nature and Natural Resources (2003). Apart from the UN Economic Commission for Africa, other organisations having environmental responsibilities and activities include the African Development Bank,[319] the Arab Bank for Economic Development in Africa,[320] the Economic Community of Central African States,[321] the Economic Community of West African States[322] and the Intergovernmental Authority on Development.[323] The Southern African Development Community was established in 1992 and has adopted protocols on shared watercourses, wildlife conservation and law enforcement, energy, fisheries, forestry and mining.[324] Regional bodies have also been established to manage shared natural resources.

Americas and the Caribbean

The Organization of American States (OAS), whose purposes include promoting the economic, social and cultural development of its members,[325] has played a limited role in international environmental law. As the successor organisation to the Pan American Union, the OAS has responsibility for the dormant 1940 Western Hemisphere Convention,[326] and has been responsible for the adoption of just one convention, with passing relevance for environmental

[312] www.envsec.org [313] Charter of the OAU, Art. II(1); www.africa-union.org
[314] Constitutive Act of the African Union, adopted 7 November 2000 at the Lomé Summit (Togo), entered into force 26 May 2001, Art. 3(j); www.au.int. Reflecting this focus, the African Union established a technical body called the New Partnership for Africa's Development (NEPAD) (www.nepad.org).
[315] 1968 African Nature Convention; see Chapter 10, p. 438.
[316] 1991 Bamako Convention; see Chapter 12, pp. 623–4. [317] Chapter 17, p. 817. [318] Chapter 18, p. 893.
[319] See www.afdb.org/en [320] See www.badea.org [321] See www.africa-union.org/root/au/recs/eccas.htm
[322] See www.ecowas.int [323] See igad.int [324] For details, see www.sadc.int/documents-publications/protocols
[325] Charter of the OAS, Art. 2(e); www.oas.org [326] Chapter 10, pp. 441–2.

protection.[327] Other organisations with a higher environmental profile include the Inter-American Development Bank,[328] the Caribbean Development Bank,[329] the Central American Commission on Environment and Development (CCAD),[330] and the American Convention on Human Rights, which – through its San Salvador Protocol – is one of the few such instruments to state expressly that people have a right to a clean and healthy environment.[331] Neither the Caribbean Community nor the Organization of Eastern Caribbean States has played a particularly active role, save in the field of fisheries, though these organisations have an increasing focus on sustainable development and clean energy issues. Regional free trade agreements have played a catalytic role in developing regional rules of environmental protection, particularly the Canada–United States Free Trade Agreement and the North American Free Trade Agreement.[332] At the bilateral level, the Canada–United States International Joint Commission, established in 1909, is significant,[333] and important bilateral arrangements also exist between Mexico and the United States.[334]

Asia Pacific

Although not as established as in other regions, the Asia Pacific region has taken significant steps towards developing regional environmental organisations.[335] This has been driven by the rapid industrialisation which is occurring in many countries in the region, the important role of Japan, and the size and significance of China and India, shared environmental problems (particularly climate change and transboundary haze resulting from forest fires) and the need to conserve natural resources. For the most part, developments have focused on giving existing organisations greater environmental competence, and on the relationship between economic commitments (free trade and investment) and environmental standards.

One of the few regional organisations in the Asia Pacific to have made a significant contribution is the Association of Southeast Asian Nations (ASEAN), under whose auspices the 1985 ASEAN Convention and 2002 ASEAN Agreement on Transboundary Haze Pollution were adopted.[336] In 2005, agreement was reached on the establishment of the ASEAN Centre for Biodiversity.[337] The Asian Development Bank integrates environmental considerations into its decision-making process,[338] and the South Asian Association for Regional Co-operation

[327] 1976 Convention on the Protection of the Archaeological, Historical and Artistic Heritage of the American Nations.

[328] The Inter-American Development Bank was established under the auspices of the Economic Conference of the OAS in 1959 to 'contribute to the acceleration of the process of economic and social development of the regional developing member countries' (Washington, 8 April 1959, in force 30 December 1989, 389 UNTS 69 (www.afdb.org)).

[329] The Caribbean Development Bank was established in 1970 under the auspices of UNDP 'to contribute to the harmonious economic growth and development of the member countries in the Caribbean and to promote economic co-operation and integration among them, having special attention and urgent regard to the needs of the less developed member countries of the region' (Kingston, 18 October 1969, in force 26 January 1970, 712 UNTS 217 (www.caribank.org)). Given the vulnerability of the Caribbean region to climate change and other natural disasters, the Bank has designated environmental sustainability, disaster risk management and climate change as key elements in its 2015–19 Strategic Plan.

[330] 1 *Yearbook of International Environmental Law* 229 (1990). [331] Chapter 17, p. 814.

[332] Chapter 18, pp. 887–92. [333] Chapter 9, p. 371. [334] See e.g. Chapter 9, p. 371.

[335] For a history of developments in this region, see B. Boer, R. Ramsay and D. Rothwell, *International Environmental Law in the Asia Pacific* (London: Kluwer, 1998). For more contemporary developments in the region see the *Asia Pacific Journal of Environmental Law*.

[336] Chapter 7, p. 274 and Chapter 10, p. 447. [337] www.aseanbiodiversity.org

[338] The Asian Development Bank was established in 1965 under the auspices of the predecessor organisation to the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP): Manila, 4 December 1965, in force 22 August 1966, 571 UNTS 123 (www.adb.org). The Bank has adopted environmental safeguard policies for projects

(SAARC)[339] has started to play a more active role in the development of regional rules, particularly on issues of climate change and natural disasters. SAARC's contributions include a 2010 Convention on Cooperation on the Environment,[340] and a 2011 Agreement on Rapid Responses to Natural Disasters.[341] The Trans-Pacific Partnership (TPP) regional trade agreement concluded in 2015 (or any replacement arrangement following the US withdrawal from the TPP) may play a significant future role in shaping environmental protection measures in the region.[342]

Regional organisations in the Pacific have generally been more active than their Asian counterparts, including in the negotiation of multilateral environmental agreements.[343] The Pacific Community (formerly the South Pacific Commission) has promulgated at least two treaties for the protection of natural resources.[344] At the annual meetings of the Pacific Islands Forum, regional and global environmental issues are high on the agenda, especially concerning sea level rise, climate change and disaster preparedness. The Forum also took decisions that led to the negotiation and adoption of a nuclear-free zone treaty,[345] the prohibition of driftnet fishing,[346] and the regulation of transboundary shipments of hazardous and radioactive waste.[347] The South Pacific Regional Environment Programme (SPREP) became an independent and autonomous regional organisation in 1991, and has adopted a number of action plans, including an Action Strategy for Nature Conservation and Protected Areas in the Pacific Islands Region (2008–12), a Pacific Islands Framework for Action on Climate Change (2006–15) and a Regional Solid Waste Management Strategy (2010–15).

Organisations Established by Environmental Treaties

The third type of organisation is that established by environmental treaty. Most environmental treaties establish institutional arrangements for their implementation, development and review. The institutional arrangements have a variety of names and forms, and have been an increasing focus of scholarly and practical attention over the last decade. They range from the standing Commission established by the 1992 OSPAR Convention (replacing the commissions established by the 1972 Oslo Convention and the 1974 Paris Convention) to the ad hoc Conferences or Meetings of the Parties to a wide range of agreements. Each treaty organisation will also have a secretariat. These institutional arrangements are, in effect, international organisations. They have international legal status, rules of procedure and membership, and have enumerated powers

which are summarised in Environmental Safeguards: A Good Practice Sourcebook (Draft Document), December 2012, at www.adb.org/documents/environment-safeguards-good-practice-sourcebook

339 Charter of SAARC, Dhaka, 8 December 1985 (http://saarc-sec.org). 340 In force 23 October 2013.

341 Male, 25–26 May 2011, at www.ifrc.org/docs/idrl/N840EN.pdf

342 For the text of the TPP, see http://dfat.gov.au/trade/agreements/tpp/official-documents/Pages/official-documents.aspx. Withdrawal of the United States from the TPP under President Trump has thrown the future of the agreement into doubt, though it is likely a new regional treaty will emerge, potentially including China but without the United States.

343 Pacific island states, together with Caribbean states, are active in the Alliance of Small Island States, in the climate change negotiations.

344 1976 Apia Convention (at the Eighth Meeting of the Parties in 2006, its operation was suspended until further notice); and 1986 Noumea Convention and Protocols.

345 1985 Rarotonga Treaty; Chapter 12, p. 601. 346 1989 Driftnet Convention.

347 1989 Waigani Convention; see Chapter 12, pp. 624–5.

relating to decision-making and dispute settlement and, occasionally, enforcement powers. A large number of treaty organisations are highly active and have made significant contributions to the development of international environmental law, much of which is not collectively well documented and assessed.[348]

A detailed list of these organisations is beyond the scope of this section: where appropriate, they are identified and discussed in relevant sections of the book. As will be seen, they may, through their acts, impose obligations on states that range from the legally binding to recommendations with no legal consequences.

NON-STATE ACTORS

Non-state actors have played a central role in developing international environmental law. They remain highly influential. Since the latter half of the nineteenth century, the scientific community and environmental groups have mobilised the forces of public opinion, and have sought to contribute to the progressive development of international law. The corporate sector has also fought to ensure that its voice is heard, especially as international rules have expanded and touched directly upon industrial and other economic activities. At the international level, non-state actors play a formal role in several ways. They identify issues requiring international legal action; they participate as observers in international organisations, and in treaty negotiations; and they participate, formally and informally, in the national and international implementation of principles and rules adopted at the regional and global levels.

Over the past few decades, at least six categories of non-state actors have emerged as important actors: the scientific and technological community; non-profit-making environmental groups and associations (NGOs); private companies and business concerns; legal organisations and the academic community; workers and trade unions; and individuals and community groups, including indigenous peoples' organisations.[349] The Rio Declaration and Agenda 21 affirmed the important partnership role of non-governmental organisations and called for their 'expanded role'.[350] This was a theme reaffirmed in the outcome document from the Rio+20 Summit, *The Future We Want*, which underscored 'that broad public participation and access to information and judicial and administrative proceedings are essential to the promotion of sustainable development'.[351] It also declared that sustainable development:

> requires the meaningful involvement and active participation of regional, national and sub-national legislatures and judiciaries, and all Major Groups: women, children and youth, indigenous peoples, non-governmental organizations, local authorities, workers and trade unions, business and industry, the scientific and technological community, and farmers, as well as other stakeholders, including local communities, volunteer groups and foundations, migrants, families as well as older persons and persons with disabilities.

[348] K. O'Neill, 'Architects, Agitators, and Entrepreneurs', in R. S. Axelrod and S. D. VanDeveer (eds.), *The Global Environment: Institutions, Law and Policy* (Los Angeles, CA: CQ Press, 2015, 4th edn) 26.

[349] Agenda 21, Section III, entitled 'Strengthening the Role of Major Groups', identifies the following 'major groups': women, children and youth, indigenous people, non-governmental organisations, local authorities, workers and trade unions, business and industry, the scientific and technological community, and farmers.

[350] Agenda 21, paras. 38.42–38.44.

[351] *Future We Want*, para. 43.

Non-state actors have for many years been able to participate as observers in the activities of international organisations, such rights being granted expressly in the treaty establishing the organisation, or by its rules of procedures, or by practice. The 1992 OSPAR Convention included, for the first time, a treaty provision for observers that does not distinguish between states, international governmental organisations and non-governmental organisations with respect to the conditions of the granting of observer status, save that the non-governmental organisations must carry out activities that are related to the Convention.[352] Even more far-reaching is the 1998 Aarhus Convention that entitles non-governmental organisations to participate in the Meeting of the Parties and – uniquely – to nominate candidates for election to the Convention's implementation committee.[353]

Scientific Community[354]

Often, the driving force behind international environmental law is science, a feature that distinguishes this from other areas of public international law where developments are frequently initiated by political, economic or commercial imperatives. The important place for science introduces an objective element over which governments have less control. As one commentator noted, this has two effects: the 'environmental movement has been powerfully affected by the consequences of science misused to the detriment of the living world, but even more importantly by what advancing science has revealed about the structure and process of nature'.[355] Non-state actors rely upon scientific evidence generated from different sources, including that which emerges from international processes such as the IPCC and GESAMP, from government departments and from non-state sources. The last-mentioned have long played a role in the development of international environmental law. Early efforts leading to international legal developments included the work of individual members of the scientific community in the eighteenth century and the scientific congresses of the late nineteenth century.[356] Today, the principal coordinating force for the non-governmental activities of individual researchers and academics, and university and commercial research centres and institutes, is the International Council for Science (formerly the International Council for Scientific Unions (ICSU)), a coordinating federation of thirty-one constituent unions together with representation from 122 national scientific bodies representing 142 countries.[357] ICSU interdisciplinary bodies address particular issues, of which the following have been among the more influential: the Scientific Committees on Oceanic Research (SCOR, 1957), on Space Research (COSPAR, 1958), on Antarctic Research (SCAR, 1958) and on Problems of the Environment (SCOPE, 1969).[358] SCOPE serves as a non-governmental, interdisciplinary and international council of scientists, and provides advice for governments and non-governmental bodies on environmental problems.

[352] Art. 11(1). Once observer status has been granted, each observer appears to have identical rights, namely to present to the Commission any information or reports relevant to the objectives of the Convention but not the right to vote (Art. 11(2)). Under Art. 11(3), conditions for admission and participation are set out in the Rules of Procedure of the OSPAR Commission: Criteria and procedures governing observership of Non-governmental Organisations at meetings within the framework of the OSPAR Commission (Agreement 2013–02). Other similar examples include the 2003 Pollutant Release and Transfer Register Protocol, Art. 17(5); and the Nagoya Protocol, Art. 26(8).

[353] 1998 Convention, Art. 10(5); Meeting of the Parties, Decision I/7, Annex, para. 4 (2002).

[354] Agenda 21, Chapter 31.

[355] L. K. Caldwell, *International Environmental Policy* (Durham, NC/London: Duke University Press, 1990, 2nd edn), 9.

[356] *Ibid*., 32.

[357] www.icsu.org/about-icsu/about-us

[358] Caldwell, *International Environmental Policy*, 114.

It is often through the activities of environmental organisations that this scientific work is brought to the attention of governments and international organisations, supporting calls for further international action and providing the basis for political lobbying in intergovernmental negotiating fora.

Environmental, Health and Developmental Organisations[359]

Internationally, a number of environmental, health and developmental organisations have played a particularly important role in developing and implementing international environmental law. The International Union for the Conservation of Nature (IUCN), established in 1948, has developed policy initiatives and has prepared texts of draft instruments which served as the basis for the negotiation of the 1971 Ramsar Convention, the 1973 CITES and the 1992 Biodiversity Convention. Together with UNEP and WWF, IUCN was also instrumental in drawing up the 1980 World Conservation Strategy and the 1990 World Conservation Strategy II. WWF, Greenpeace, Conservation International, and Friends of the Earth are other international non-governmental organisations that have played an active role in developing treaty language and other international standards, and in acting as watchdogs in the implementation of treaty commitments, together with groups such as Oxfam and Action Aid.[360] This extends to the filing of international cases, where rules permit,[361] or intervening as friends of the court.[362] Grassroots environmental and consumer organisations have also influenced the development of international environmental law, including through domestic litigation. Often, they participate in global networks which focus on specific issues, such as the Climate Action Network and the Pesticides Action Network; similar global networks have been established to address environmental issues relating to matters such as regional and international trade negotiations, as well as policies and projects funded by the multilateral development banks. At each of the global environmental summits (UNCED, WSSD and Rio+20), large groups of non-governmental organisations held parallel conferences and prepared their own draft instruments on a range of international legal issues relating to sustainable development and its implementation.

In comparison with 'advocacy' NGOs that are prominent in international environmental negotiations, 'operational' NGOs seek to 'fund, design or implement development-related programs or projects'.[363] This category of NGOs has a growing role: examples include TRAFFIC, the global wildlife trade monitoring network,[364] and the International POPs Elimination Network (IPEN), which is a network of public interest groups in over one hundred countries focused on taking action internationally to minimise and eliminate hazardous, toxic chemicals. In 2008 IPEN was funded by GEF to develop educational materials to support awareness building around persistent organic pollutants, the legal and institutional arrangements governing them, and community-based management of these chemicals.[365] The international climate change regime under the UN Framework Convention on Climate Change is another area where NGOs play a prominent role in public international environmental governance, especially under certification

[359] Agenda 21, Chapter 27, 161–3. See also O'Neill, 'Architects, Agitators, and Entrepreneurs', in Axelrod and VanDeveer, *Global Environment*, 26.
[360] Chapter 5, pp. 147–8. [361] *Ibid*., p. 163. [362] *Ibid*. [363] World Bank Operational Directive 14.70 (1989).
[364] www.traffic.org
[365] See further Persistent Organic Pollutants (POPs): A Training Manual for Community-Based Actions, www.sgp-pops.org

mechanisms such as the Clean Development Mechanism and the emerging processes for REDD+ (reducing emissions from deforestation and forest degradation).[366]

Legal Groups

Private groups and associations of lawyers have long played a role in the progressive development of international environmental law. Since the Institut de Droit International adopted its 1911 Resolution on International Regulations Regarding the Role of International Watercourses for Purposes Other than Navigation,[367] it and the International Law Association have developed model international rules on a range of environmental issues, including transboundary water resources and atmospheric pollution. The IUCN Environmental Law Centre and the IUCN Commission on Environmental Law have prepared important draft treaties that have formed the basis of formal negotiations. Other private organisations contributing significantly to the field include environmental law groups based in the United States, such as the Natural Resources Defense Council (NRDC), the Earthjustice Legal Defense Fund and the Environmental Defense Fund (EDF), which play an advocacy role in the development of international environmental law. The International Council on Environmental Law and organisations such as the Center for International Environmental Law (CIEL) in Washington, DC, have provided international legal assistance to developing countries and non-governmental organisations. Many national academic institutions have also contributed to the domestic implementation of international environmental obligations.

Corporate Sector[368]

Business groups and companies, including transnational corporations (TNCs), play an increasingly active role in international environmental regulation. Members of the corporate sector participate as observers in international legal negotiations where it is perceived that issues affecting their interests are likely to be legislated on. At negotiations relating to the 1987 Montreal Protocol, the 1992 Climate Change Convention and post-2020 arrangements, and the 2000 Biosafety Protocol, among others, individual companies, trade associations and other industry groups have been particularly active. Their participation reflects the relevance of public international law to the business community in a globalised trading environment.

In international environmental negotiations, private sector associations such as the International Chamber of Commerce (ICC) and the World Business Council for Sustainable Development (WBCSD), as well as a host of trade associations and groups focused on specific industries, have sought to ensure that the interests of the business community are taken into account. To that end, they, and others, have developed proposals for the development of international environmental law, such as the Business Charter on Sustainable Development,[369] the Declaration

[366] See further, Chapter 8, pp. 310–14. [367] See Chapter 2, p. 22.

[368] See Agenda 21, Chapter 30; *Future We Want*, paras. 46 and 47.

[369] Business Charter on Sustainable Development, adopted by the 64th session of the board of the International Chamber of Commerce; Official Report of the Second World Industry Conference on Environmental Management, Rotterdam, 10–12 April 1991; L. M. Thomas, 'The Business Charter for Sustainable Development: Action Beyond UNCED', 1 *Review of European Community and International Environmental Law* 325 (1992); E. Morgera, *Corporate Accountability in International Environmental Law* (Oxford: Oxford University Press, 2009).

of the World Industry Conference on Environmental Management (WICEM II) and the CERES Principles (in the United States).[370] In addition, they hold regular 'dialogues' with intergovernmental environmental organisations, such as UNEP's Business and Industry Dialogue held at the Rio+20 Summit.

Transnational corporations have also been the subject of international regulatory efforts in relation to activities which may entail harmful consequences. In tandem with the global corporate social responsibility movement, calls have continued to grow for minimum international standards of behaviour to govern cross-border business activities, especially of TNCs. The importance of such corporate actors to international environmental protection is highlighted by studies showing the global environmental impact of major companies.[371]

The OECD Guidelines for multinational enterprises were introduced in 1976 as the first internationally agreed framework for cooperation in the field of international direct investment and multinational enterprises.[372] They have been reviewed five times with the most recent update in 2011.[373] The Guidelines remain the most comprehensive instrument in existence establishing corporate responsibility multilaterally agreed by governments. Part VI of the 2011 Guidelines (on the environment) provides that:

> Enterprises should, within the framework of laws, regulations and administrative practices in the countries in which they operate, and in consideration of relevant international agreements, principles, objectives, and standards, take due account of the need to protect the environment, public health and safety, and generally to conduct their activities in a manner contributing to the wider goal of sustainable development.[374]

Another significant, albeit soft law, attempt to engage the private sector in global environmental governance has been the Global Compact established by the UN in 2000. The Global Compact – a voluntary initiative joined by over 8,000 companies – commits its corporate participants to adhere to ten principles and shared values. Three of these relate to the environment, and commit businesses to:

[370] Formerly known as the Valdez Principles. See further, www.ceres.org/about-us/our-history/ceres-principles

[371] See e.g. R. Heede, 'Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010', 122(1) *Climatic Change* 229 (2014) (finding ninety 'carbon major' companies were responsible for 63 per cent of cumulative worldwide industrial emissions of greenhouse gases, carbon dioxide and methane, between 1751 and 2010).

[372] Annexed to the Declaration of 21 June 1976 by governments of OECD member countries in international investment and multinational enterprises, as amended in 1979, 1982 and 1984: 15 ILM 969 (1976), 31 ILM 494 (1992).

[373] OECD Guidelines for Multinational Enterprises, 2011 edn, available at http://mneguidelines.oecd.org/text. The Guidelines propose that enterprises should, in the countries in which they operate, contribute to 'economic, social and environmental progress with a view to achieving sustainable development' ('II. General Policies', para. A.1).

[374] The Guidelines indicate, inter alia, the following minimum requirements for enterprises: to establish and maintain a system of environmental management appropriate to the enterprise; to provide adequate and timely information on the potential environment, health and safety impacts of the activities of the enterprise; to assess and address the foreseeable environmental, health and safety-related impacts associated with the processes, goods and services of the enterprise over their full life cycle with a view to avoiding or mitigating them (including preparing an appropriate environmental impact assessment for significant impacts); not to use the lack of full scientific certainty as a reason for postponing cost-effective measures to prevent or minimise such damage; to maintain contingency plans for preventing, mitigating and controlling serious environmental and health damage from their operations; to seek continually to improve corporate environmental performance; to provide adequate education and training to workers in environmental health and safety matters; and to contribute to the development of environmentally meaningful and economically efficient public policy (2011 edn, part VI, paras. 1–8).

- support a precautionary approach to environmental challenges;
- undertake initiatives to promote greater environmental responsibility; and
- encourage the development and diffusion of environmentally friendly technologies.[375]

International legally binding standards governing corporate conduct with implications for the environment have proved more elusive (not least due to the opposition of many states).[376] However, in June 2014 the UN Human Rights Council adopted a resolution by which it decided 'to establish an open-ended intergovernmental working group on transnational corporations and other business enterprises with respect to human rights, whose mandate shall be to elaborate an international legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business enterprises'.[377] Although the focus of this instrument will be on human rights violations, it is likely that it will also consider environmental degradation as a result of corporate activities that undermine realisation of human rights protections.

Individuals and Indigenous Communities

Individual citizens have traditionally expressed their involvement in the development and application of international environmental law through the activities of their national governments or environmental organisations. However, the growing relationship between human rights and environmental discourse at the international level has led to individuals having recourse to international human rights norms and procedures including, where available, the right to complain to international bodies.[378] International law also recognises the special interests and rights of indigenous communities, for example in relation to land rights and traditional knowledge associated with the conservation of biodiversity.[379] At the same time, their close relationship to and dependency upon land and functioning ecosystems has made many indigenous peoples extremely vulnerable to environmental degradation caused by global environmental problems, such as climate change. The outcome document of the Rio+20 summit, *The Future We Want*, recognises 'the importance of the participation of indigenous peoples in the achievement of sustainable development'.

As citizens of nation states, individuals are responsible for the implementation of international obligations; their role will be enhanced if they are able to report violations by governments of

[375] Global Compact Annual Review – Anniversary Edition, June 2010; www.unglobalcompact.org/what-is-gc/mission/principles. Another soft law development that is galvanising corporate action to reduce greenhouse gas emissions is the We Mean Business coalition, which was formed in the lead-up to the Paris COP and is a coalition of organisations working with thousands of the world's most influential businesses. For more information, see www.wemeanbusinesscoalition.org/about

[376] E. Morgera, 'Multinational Corporations and International Environmental Law', in S. Alam et al. (eds.), *Routledge Handbook of International Environmental Law* (New York: Routledge, 2013), 189.

[377] HRC Res. 26/9 (2014), para. 1.

[378] Chapter 17, pp. 819–27.

[379] The 2010 Nagoya Protocol is a leading example (See Chapter 10, pp. 403–4). See also D. Shelton, 'Fair Play, Fair Pay: Preserving Traditional Knowledge and Biological Resources', 5 *Yearbook of International Environmental Law* 77 (1994); R. Gupta, 'Indigenous Peoples and the International Environmental Community: Accommodating Claims Through a Co-operative Legal Process', 74 Security Council Res. 687/1991 (1991). Security Council Res. 687/1991 (1991). *New York University Law Review* 1741 (1999); Benjamin J. Richardson, 'Indigenous Peoples, International Law and Sustainability', 10(1) *European Community and International Environmental Law* 1 (2001); E. Morgera and E. Tsioumani, 'The Evolution of Benefit Sharing: Linking Biodiversity and Community Livelihoods', 19(2) *European Community and International Environmental Law* 150 (2010).

international legal obligations to environmental organisations, to national public authorities and, in the case of the EU and international human rights organisations, to international organisations. It is in regard to the latter that individuals have acquired rights under international law: the increased availability of complaint procedures – such as the Inspection Panel of the World Bank and the non-compliance mechanism established under the 1998 Aarhus Convention[380] – provides formal mechanisms.

The groundwork for these developments was laid at UNCED, as reflected in the Rio Declaration, which recognised the rights of individual citizens to participate in decision-making processes, to have access to information, and to have access to judicial and administrative remedies. Principle 10 of the Rio Declaration provides that:

> [e]nvironmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Although Principle 10 is not binding per se, it has provided an international benchmark against which the compatibility of national standards can be compared. Building on the human rights model, these developments have facilitated the creation of a new range of procedural rights granted to individuals by international law, and exercisable at the national and, possibly, international levels.[381] Principle 10 inspired the adoption of the first international convention – the 1998 Aarhus Convention – to require parties to guarantee the rights of access to information, public participation in decision-making and access to justice in environmental matters, and to promote the Convention's principles in international environmental decision-making and within international organisations.[382] Subsequent developments, such as the 2003 Protocol to the Aarhus Convention on Pollutant Release and Transfer Registers, have further amplified these rights.

The Media

While the contribution of the media to international environmental law should not be overstated, there is little doubt that it plays an important informal role in various aspects of international environmental law. The media is able to place a spotlight on particular international legal issues which excite public interest and which can serve to change the public (or

[380] Chapter 5, pp. 172–5.

[381] On access to information, see Chapter 15, pp. 683ff; on participation in environmental impact assessments, see Chapter 14, pp. 668–9; on access to national remedies, see Chapter 5, pp. 657–8.

[382] Aarhus, 25 June 1998, in force 30 October 2001, Arts. 1 and 3(7). The rights established by the Convention are to be applied without discrimination as to citizenship, nationality or domicile or place of registration/effective centre of activities (Art. 3(9)). On access to and dissemination of information under Arts. 4 and 5, see Chapter 15, p. 710.

private) position of states.[383] The media also provides an opportunity for governments to make statements that may have legal consequences. In the *Nuclear Tests* cases, the International Court of Justice held that it did not have to decide on the Australian and New Zealand claims, after the French prime minister made a statement at a press conference that France no longer intended to conduct atmospheric nuclear tests after 1974.[384]

CONCLUSIONS

The discussion in this chapter highlights the 'expanding web of international governance' that now characterises the field of international environmental law.[385] It indicates that the range of actors involved in the development and application of international environmental law is broad, and that the involvement of non-state actors is recognised as legitimate, and is increasingly being encouraged, at both national and international levels. At the same time, a growing role for non-state actors of various kinds in international environmental law has shifted the focus from (exclusively) top-down strategies of lawmaking and implementation, with states and international organisations as the principal actors, to a bottom-up dynamic where international legal development may be driven to a greater extent by the actions of individuals, business and NGOs. Edith Brown Weiss describes this as a 'kaleidoscopic pattern' that poses both challenges for the international legal system and opportunities to expand and strengthen the foundations of international law.[386]

Operating in this 'new multilayered system', international environmental law has three interrelated challenges: first, to ensure that all states are able to participate in the response of the international community to the growing range of environmental challenges which require an international legal response; second, to strengthen the role of international organisations, and their effectiveness, by rationalising and coordinating their activities, and endowing them with increased functions; and, third, to ensure that the role of non-state actors is properly harnessed, by providing them with sufficient international status and responsibilities to participate effectively in the international legal process and to make the link that governments and international organisations seem to find so difficult: translating global obligations into domestic action and implementation.

These three challenges are closely interconnected, and each will require the further elaboration of rules of participation and procedure; the amendment of the constitutions of most international organisations; and a rethink about the limits of sovereignty. Beginning with the participation of states, it has become ever clearer that many developing states are not able to participate as fully and effectively in the lawmaking process as they should, because they frequently have insufficient financial and human resources. This is not a comment on their lack of insight, ability, inspiration or commitment; it simply reflects the explosion in the number of centres of

[383] A prominent example was the leaking of emails by the press in the 'Climategate' incident and its implications for subsequent Copenhagen climate negotiations. For a discussion, see David Henderson, 'The Climate Change Debate Today: COP15, the CRU Affair, and the Basis for Policy', 21(3) *Energy and Environment* 279 (2010).

[384] (1974) ICJ Reports 253, para. 37. Other statements were made by the minister of defence on French television and at press conferences, and by the minister of foreign affairs at the UN; on the legal effect of unilateral acts of this type, see Chapter 4, pp. 125–6.

[385] L. A. Kimball, *Forging International Agreement: Strengthening Intergovernmental Institutions for Environment and Development* (Washington, DC: World Resources Institute, 1992), 2.

[386] 'International Law in a Kaleidoscopic World', 1(1) *Asian Journal of International Law* 21 at 24 (2010).

international environmental legislation that has occurred in the past fifty years. Without effective participation in the lawmaking process, there can be little expectation that countries, particularly small island states and least developed countries, will be able to translate their international commitments into domestic action. International law is increasingly complex and technical, both to negotiate and to apply, and significant effort needs to be made to develop human capacities, including developing international legal knowledge.

The process of rationalisation and coordination of the activities of international organisations is closely linked to the effective participation of states. The proliferation of organisations, including treaty-based environmental organisations, has brought with it a proliferation of secretariats, most of which would be able to function far more efficiently if they could readily share experiences and expertise and work to minimise the overlaps between their respective fields of competence. Rationalisation and better coordination would allow the functions of the organisations and the secretariats to be more efficiently undertaken, and might then provide them with a stronger basis to engage in the sorts of activities which are clearly needed, for which they are well equipped, and which they should be undertaking: preparing documentation, synthesising national implementation reports, encouraging compliance, conducting verification and sponsoring new agreements.[387]

Many international organisations already rely heavily on the efforts and activities of non-state actors, either informally or formally. Business and industry are increasingly involved in global environmental governance as the impact of environmental regulations on companies' activities becomes more substantial. The corporate social responsibility movement, coupled with efforts to develop soft law guidelines and principles for multinational enterprises and their activities with environmental consequences, offer the promise for the private sector to make a meaningful and positive contribution to international environmental law, although the lack of binding standards governing transnational corporate activity remains a limitation. Other non-state actors, particularly environmental NGOs, need to be given a strengthened role, and as implementation and enforcement become increasingly important their participation in the process as observers could be supplemented by allowing them to provide information of a general nature or, more specifically, on non-compliance by states with their international obligations. This has happened under the non-compliance procedure of the 1998 Aarhus Convention. The model provided by the human rights field is a useful one that could be further extended into the environmental field; this is perhaps the direction which UNEP should be encouraged to take, given its recent injection of new authority and resources. UNEP has a broad mandate to ensure the progressive development of international environmental law, and it should be encouraged to develop that mandate in an expansive manner.

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