

5

Principles of international environmental law

Menno T. Kamminga

5.1 Introduction

In the foregoing chapters we have seen that adequate protection and improvement of the environment, and the achievement of sustainable development on a global scale, will require a considerable amount of international regulation. Whales cannot be saved and CFCs are unlikely to be banned as a result of spontaneous domestic action alone. This is why there is a need for international environmental law. International law is the body of rules which are legally binding on states in their intercourse with each other (Jennings and Watts, 1992, p. 4). International environmental law is the corpus of international law relevant to environmental issues (Birnie and Boyle, 1992, p.1). A lawyer's answer to the question, 'What are international environmental problems and why are they important politically?', might be as follows. International environmental problems are those over which conflicts of interest are arbitrated and reconciled by the development of international legal agreements between contending parties.

This chapter provides a perspective of international environmental law as it has developed so far. As we shall see, the typical lawyer's approach is to identify and help to create relevant standards and also to contribute to the implementation and enforcement of those standards.

The history of international environmental law stretches back to the beginning of the 20th century. At that time, states began to find it convenient to conclude international agreements on environmental matters that could not be adequately dealt with on a purely national basis, such as transboundary water pollution and the protection of certain migratory species (whales, seals, birds). However, until the late 1960s, attempts to respond to environmental problems through international law and international institutions remained limited to ad hoc responses to certain issues. The development towards a more integrated legal approach to the management of the biosphere owes much to the political push generated by two major international conferences.

The 1972 UN Conference on the Human Environment held in Stockholm is rightly regarded as the starting point of the development of modern-day international environmental law. The Conference marked the worldwide recognition of the environmental crisis as a matter of international concern, requiring an integrated international response. The Conference adopted a Declaration on the Human Environment containing principles which, although not binding by themselves, subsequently inspired or explicitly found their way into a large number of binding international instruments.¹

Two decades later, the 1992 UN Conference on Environment and Development (UNCED), held in Rio de Janeiro, constituted the second major milestone in the development of international environmental law. This Conference focused on the linkage between environment and development and the need for sustainable development, as set out in the 1987 Brundtland Report. This approach was reflected in the Rio Declaration on Environment and Development, containing 27 principles, which may be regarded as the successor to the Stockholm Declaration.²

These international conferences stimulated the development of international environmental law. This chapter gives an impression of the most important institutions dealing with lawmaking (5.2), describes the main features (5.3) and considers the general principles of international environmental law (5.4). Our discussion is guided by the question: 'What progress has been made and what has been the actual result?'.

5.2 International institutions

The absence of international institutions with effective legislative and executive powers has encouraged a tendency for international law generally to develop in a haphazard, unco-ordinated manner. International environmental law is no exception to this. States have so far resisted the establishment of an effective international agency with overall responsibility for dealing with environmental issues. The United Nations Environmental Programme (UNEP), set up in the wake of the Stockholm Conference, is not a UN specialised agency but merely a 'programme', without executive powers and with a budget that is to a large extent dependent on voluntary contributions from states. UNEP's main purpose is to promote better co-ordination between existing UN programmes in the field of the environment, rather than to develop its own programmes. Nevertheless, UNEP has gradually managed to carve out a useful role for itself by taking the initiative on such issues as the control of transboundary movements of hazardous waste and the protection of the ozone layer.

The need for the co-ordinating role performed by UNEP becomes evident if one considers the large number of international agencies that contribute to the creation of international environmental law. The International Maritime Organisation (IMO), the key organisation with responsibility for the protection of the marine environment, has promoted the adoption of numerous conventions in this field. The Food and Agriculture Organisation (FAO) has been active on subjects such as deforestation and conservation of fisheries. The World Meteorological Organisation (WMO) plays a key monitoring role in the field of climate change and global warming. The International Atomic Energy Agency (IAEA), although not initially much concerned with environmental issues, has begun to adopt conventions on the subject in the wake of the

Chernobyl disaster. Similarly, the World Bank or International Bank for Reconstruction and Development (IBRD) has in recent years begun to pay more attention to the environmental side effects of its lending policies.

One important outcome of UNCED was the establishment in 1993 of the UN Commission on Sustainable Development. The Commission consists of 53 member states elected for a period of three years. It reports to the UN Economic and Social Council (ECOSOC) and its mandate is to monitor the implementation of Agenda 21 (UNCED's programme of action). This means that issues relating to environment and development have now been provided with a much higher profile within the United Nations organisation itself.

Outside the UN system, regional organisations which have adopted significant legal instruments in the field of the environment include the Organisation for Economic Co-operation and Development (OECD), the Conference on Security and Co-operation in Europe (CSCE) and the Organisation of African Unity (OAU). The environmental policy of the European Union is in a category of its own and will be discussed in more detail below.

Non-governmental organisations (NGOs) frequently have consultative or similar status at international conferences, and may have a considerable impact on the proceedings, depending on the quality of their research and the sophistication of their representations. NGOs which have had such impact include the International Union for the Conservation of Nature (IUCN), Friends of the Earth (FOE) and Greenpeace International. For example, Greenpeace played an important part in ensuring the ending of sea dumping of nuclear waste in 1987.

International disputes relating to environmental issues tend to be resolved through ad hoc negotiations between the parties concerned. In principle, states are free to resolve such disputes by whatever peaceful means they find appropriate and they are not bound to accept any compulsory settlement procedure. Accordingly, the International Court of Justice in The Hague does not have automatic jurisdiction to adjudicate international environmental disputes but can only do so with the consent of the states involved. In an apparent attempt to attract more environmental cases the Court recently decided to establish a standing specialised chamber composed of seven judges to deal specifically with such cases.³ One environmental dispute pending before the Court is that between Hungary and Slovakia, regarding Hungary's decision to abandon, on ecological grounds, the Gabčíkovo-Nagymaros dam project in the Danube. Slovakia maintains that Hungary has thereby breached its treaty obligations (see Box 1).⁴

The European Union as an international institution

The European Union is a peculiar type of international entity. The extent to which it can still be qualified as an international organisation is debatable. However, for our purposes it is sufficient to recognise that environmental measures taken by the European Union and its predecessor, the European Community, share many characteristics with international environmental law produced by other international institutions. It is no coincidence, for example, that the European Community's first environmental action programme was adopted in 1973, one year after the Stockholm Conference.⁵

If success is measured by regulatory output alone, the European Community's

The Gabčíkovo-Nagymaros dam dispute

In 1977, Czechoslovakia and Hungary concluded a treaty which provided that they would jointly build a system of dams and locks in the Danube between Bratislava and Budapest. The purpose of the project was to improve navigation and irrigation, to generate electricity, and to provide better protection against flooding.

In 1989, Hungary suspended all construction activities relating to the project because it had become convinced of its undesirable ecological consequences. Several rounds of negotiations followed in which the two governments failed to reach agreement. In 1992, Hungary formally terminated the treaty.

In 1993, Hungary and the Slovak Republic decided to jointly submit their dispute to the International Court of Justice in The Hague. They agreed to accept the judgement of the Court as final and binding. The key question put to the Court was whether Hungary was entitled to suspend and subsequently abandon work on the project.

Hungary's main legal argument is that there have been fundamental and unforeseeable changes in circumstances since the treaty was concluded in 1977. First, the two countries no longer have communist governments and the treaty's objective of 'socialist integration' no longer pertains. Second, the importance attached to ecological considerations has increased dramatically since 1977. These two factors (communism and the absence of ecological considerations) constituted an essential basis for the consent of the parties. Because they no longer apply, the parties should no longer be bound by the treaty.

The dispute therefore highlights a conflict between two opposing interests of the international community: stability in international obligations on the one hand and flexibility in adapting to new circumstances on the other. The Court has not yet pronounced on the dispute.

environmental policy has been a great success indeed. More than 200 binding instruments, many of them very specific, have been adopted so far, covering literally all aspects of environmental policy (see Freestone, 1991, pp. 135–54; Krämer, 1991, pp. 151–84). This has had a major domestic impact on member states of the European Union. Their room for manoeuvre in the field of environmental policy is largely determined these days by what has been decided in Brussels.

Remarkably, much of this has been achieved without a proper legal basis. Although environmental protection was not among the objectives included in the 1957 EEC Treaty, the EC's Council of Ministers decided in 1973, when adopting the first environmental action programme, that the objectives contained in Article 2 of the EEC Treaty, in particular a harmonious development of economic activities and a continuous and balanced expansion, could not be achieved without a proper environmental policy. The lack of explicit provisions on the environment in the Treaty of Rome was therefore not considered a decisive impediment to Community action in this field. Specific environmental provisions were added to the EEC Treaty only in 1986 by way of the Single European Act⁶ and in 1992 by way of the Treaty of Maastricht.⁷

Against this background it should cause no surprise that in striking a balance between economic and ecological objectives EC environmental policy has long

Economic versus environmental objectives: two examples

In the Danish bottles case, the European Commission argued that Denmark had violated Community law by creating a system whereby beer and soft drinks could only be marketed in reusable containers that had been approved by the Danish authorities. In the view of the Commission, this unduly restricted the free movement of goods into Denmark. The Court ruled that while the deposit-and-return system was acceptable in itself, the fact that only approved containers could be marketed was disproportionate to the objective pursued. The Court did not accept the Danish argument that, for the system to work effectively, it was necessary to restrict the number of different bottles to about 30.⁸

In the Wallonian waste case, the European Commission maintained that by prohibiting the importation of waste into the region of Wallonia, Belgium had acted contrary to Community rules providing for free movement of goods. The Court decided that the prohibition was justifiable with regard to ordinary waste but not with regard to dangerous waste. The Court argued that a blanket ban on the import of dangerous waste was incompatible with the regime laid down for this type of waste in a directive adopted by the Council of Ministers. No similar directive had been adopted with regard to ordinary waste.⁹ Understandably, this paradoxical finding was strongly criticised by environmental groups.

suffered from a bias in favour of the original goals and methods of the European Community, particularly economic growth and the free movement of goods. Accordingly, although environmental policy has blossomed in comparison to some other EC policies, it has long remained an isolated sector. Environmental considerations have so far failed to be sufficiently integrated into other EC policy sectors, such as agriculture, transport and energy (Kamminga, 1994, pp. 23–5). Characteristically, for example, the question of whether more stringent domestic environmental measures are acceptable is still being decided these days by considering whether they do not disproportionately affect the common market. The question is not approached by applying the test the other way round, i.e. by wondering whether certain EC measures aimed at establishing the internal market do not disproportionately affect the principles of sustainable development. The dilemma is illustrated by the two cases in Box 2 in which the European Court of Justice attempted unsuccessfully to steer a middle course between environmental and economic demands.

In spite of this built-in antienvironmental bias, it should be recognised that much of what has been achieved by the European Community in this area over the past 20 years could not have been achieved by its member states individually. On the whole, it is probably true that EC environmental policy has done more to encourage the laggards than to hold back the leaders (see Freestone, 1991, p. 148).

Recent trends in the development of international environmental law

A number of general trends can be distinguished in the development of international environmental law.

Initially, its focus was on the transboundary effects of environmental degradation. The issue here was how to reconcile the sovereign right of the upstream state to pollute with the sovereign right of the downstream state not to suffer undue harm. In the 1930s, an arbitrary tribunal set up jointly by the United States and Canada was asked to resolve a dispute concerning severe air pollution caused by a zinc smelter plant in the Canadian town of Trail. The plant's fumes were damaging crops across the border in the United States. The tribunal coined the famous ruling that:

'Under the principles of international law, as well as the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties of or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.'¹⁰

It was not surprising that the tribunal felt able to arrive at this sweeping conclusion, in spite of a total lack of relevant precedents in international law. The tribunal had been specifically permitted to rely on precedents in United States law and, at the start of the proceedings, Canada had already admitted liability. These peculiar circumstances should have limited the relevance of the ruling to the case in question. Nevertheless, as will be seen below, the ruling has enjoyed an enduring popularity and has evolved into the most frequently quoted basic principle of international environmental law.

In subsequent years, the emphasis of international environmental law has gradually moved away from a preoccupation with state responsibility for the effects of transboundary pollution towards a more general emphasis on the integrated management of natural resources. States have found this easier to accept, however, with regard to resources in areas beyond national jurisdiction (the so-called 'global commons') than with regard to areas within their own jurisdiction. Accordingly, the most recent codification of the Trail smelter dictum, incorporated in Principle 2 of the Rio Declaration on Environment and Development, still implicitly admits that states are free to cause environmental damage to areas within their own jurisdiction:

'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.'

The two basic elements of this principle, the freedom to act at home coupled with a duty not to cause damage beyond national borders, represent the fundamental compromise between the developing states on the one hand and the developed states on the other. This principle had already been agreed upon, in almost identical terms, in Principle 21 of the Stockholm Declaration. The Rio Conference merely added the words 'and developmental', which did not change the meaning of the principle. A strict distinction between the 'domestic' and the 'foreign' environment is of course highly

artificial and ultimately untenable from an ecological point of view. It is, however, a convenient diplomatic device rooted in the old international legal concepts of state sovereignty and the prohibition of interference in the internal affairs of another state.

As a matter of fact, international environmental law reflects a continuing struggle between competing interests. The most important of these contradictions is of an economic nature. Countries from the North and the South tend to strike a different balance when it comes to choosing between environmental and developmental priorities. Another basic contradiction is caused by geographical differences. In international river law, downstream states tend to be more concerned about the environment than upstream states. In the law of the sea, coastal states tend to be more preoccupied with pollution, while flag states (states in which vessels are registered) tend to be more preoccupied with freedom of navigation. States which belong to two competing groups can often play an important bridge-building role. For example, the United Kingdom has a strong interest both in protecting its long coastline and in maintaining freedom of navigation for its large fleet.

In spite of these competing interests, international environmental law has in recent years moved well beyond the generalities of the Trail smelter variety. The emphasis is no longer on state responsibility for environmental damage but on the setting of international standards in an attempt to prevent harmful consequences. An impressive number of international legal instruments (see Box 3) was prepared in the run-up towards UNCED, dealing with various aspects of environmental protection. These developments can be summarised as the formulation of ever more specific international obligations and the adoption of these obligations in the form of legally binding rules rather than merely as 'soft law' (recommendations). Rules contained in binding instruments, such as treaties, conventions, and protocols, have gradually become the main source of international environmental law. As a result, state sovereignty in this area is slowly but steadily being eroded.

3

International legal instruments

International legal instruments can be divided into two fundamental categories: binding and non-binding.

Binding instruments may be called *treaties* or *conventions*. *Protocols* are binding instruments by which parties to a treaty or convention may undertake additional obligations. Whatever label has been chosen, the essential point to keep in mind is that a treaty, convention or protocol is only binding on states that have specifically agreed to be bound by its provisions. States are not bound by majority decisions unless they have specifically agreed to do so (this has been done, for example, in the European Union). States can express their consent to be bound by an international instrument by way of ratification or accession. States that have ratified or acceded to a particular instrument are called parties.

Non-binding instruments may be called *resolutions*, *recommendations* or *declarations*. Again, whatever the label, the essential point is that these instruments are not legally binding, even for states that have voted for them.

5.3 General features of international environmental law

International environmental law can be analysed in two basic ways: in terms of the main *features* of individual subject areas (water, air, noise, etc.) or in terms of *general principles* (remedies, liability, etc.). Since neither of these approaches offers a complete picture, both will be adopted in this chapter.

The main features of international environmental law can be identified by reference to five areas. These are:

- pollution of international watercourses
- marine pollution
- atmospheric pollution
- international transfers of hazardous waste
- the risks of nuclear energy.

These will be dealt with in this section. From the analysis five basic principles of international environmental law will be deduced and discussed in the following section.

Pollution of international watercourses

A comparatively well-developed area of international environmental law is that concerning international watercourses (see Nollkaemper, 1993). Relevant general rules may be found in the draft articles on the non-navigational uses of international watercourses adopted in 1994 by the UN International Law Commission.¹¹ These draft articles are likely to serve as the basis for a future framework convention on the subject. With respect to Europe, more specific rules may be found in the 1992 Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (not yet in force).¹² The rules contained in this convention are particularly relevant for those international rivers in Europe for which no specific treaty regime has yet been agreed. They played an important role, for example, in the recently concluded treaty negotiations for the protection of the Meuse and the Scheldt.

In Europe, the most sophisticated legal regime applies to the River Rhine (see Lammers, 1989, pp. 440–57). Three legal instruments are particularly relevant: the 1976 Chlorides Convention¹³, the 1976 Chemical Pollution Convention¹⁴ and the 1987 Rhine Action Programme. With regard to pollution by chlorides, a protocol to the Chlorides Convention was adopted in 1991 which should provide a practical solution to a problem which has proved intractable for decades. The protocol provides that France will reduce discharges by its potassium mines whenever the concentration of chlorides at the German-Dutch border exceeds 200 mg/l. At the same time, The Netherlands will reduce discharges of saline seepage water into Lake IJsselmeer. The combination of these measures should ensure that the IJsselmeer water remains suitable for the production of drinking water.

In response to the chlorides pollution of the Rhine by the French potassium mines, legal remedies have been employed under both public and private international law.

While governments were continuing to negotiate a satisfactory solution, Dutch market gardeners who were suffering damage to their crops decided to sue the potassium mines for damages. In 1976, the European Court of Justice, in a landmark decision, decided that the market gardeners could sue both in the place where the tort had been caused (Strasbourg) and in the place where the harmful event had occurred (Rotterdam).¹⁵ The market gardeners thus found themselves in a much more favourable legal position than the American victims of pollution by the Trail smelter, who could sue neither in the United States nor in Canada, but were dependent on action taken by the US government on their behalf. In 1988, the case was settled when the potassium mines agreed to pay the market gardeners 3.75 million Dutch guilders. The extent to which this lawsuit influenced the intergovernmental negotiations which resulted in the 1991 protocol remains uncertain.

The method adopted in the Rhine Chemical Pollution Convention, the setting of limit values for discharges of individual substances, has turned out to be extremely cumbersome. In practice, limit values have so far only been agreed upon with respect to a handful of substances. The convention's approach has now in effect been replaced by the approach contained in the Rhine Action Programme, i.e. the adoption of a global target of a 50% discharge reduction of certain priority substances by 1995. This approach owes its popularity to the fact that it leaves the riparian states a great amount of leeway to decide on the manner in which they wish to achieve the 50% reduction. What is interesting from a legal point of view is that, unlike the convention, the action programme is not a legally binding instrument. Its adoption therefore goes against the trend identified above, viz. towards ever more binding international standards.

Marine pollution

Marine pollution may be caused by land-based activities, by shipping, by dumping and by sea-bed activities. All these sources of pollution are covered in more or less detail by the 1982 UN Convention on the Law of the Sea (UNCLOS)¹⁶ (see Churchill and Lowe, 1988, pp. 241–87).

By far the most important source of marine pollution is land-based activity (this includes pollutants transported through the atmosphere). Surprisingly, therefore, this is not the area which has been subject to the most detailed international regulation. UNCLOS itself refers to land-based pollution only in the most general terms and it has in effect been left to regional conventions to establish relevant rules and regulations. The most advanced regime may be found in the 1992 Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (not in force in 1995 when this was written), which also covers dumping and sea-bed activities.¹⁷ Under this convention, the parties agree to adopt programmes and measures to prevent and eliminate pollution in the relevant maritime area. These programmes and measures will be drawn up and their implementation supervised by a commission consisting of representatives of the parties. Similar regimes have been established, inter alia, for the Mediterranean, the Baltic and the Black Sea.

Although shipping is by no means the most important source of marine pollution, the fact that shipping accidents can cause spectacular catastrophes – for example, the disasters involving the Torrey Canyon (1967), the Amoco Cadiz (1978) and the Exxon



Plate 5.1 In March, 1989, the Exxon Valdez hit the rocks off the coast of Alaska. The impact on the marine and coastal environment was disastrous. Before the Gulf War of 1991, this accident was the world's largest oil spill. Photo: Alan Levenson/Sunshine

Valdez (1989) – has contributed to the creation of one of the most sophisticated legal regimes in international environmental law.

The applicable UNCLOS provisions strike a careful balance between the interests of coastal states and port states, which are not to be subjected to pollution, and the interests of flag states in freedom of navigation. On the whole, these provisions reflect customary international law, which means they are also binding on states that are not parties to UNCLOS. The provisions make a distinction between prescriptive jurisdiction (the right to prescribe rules) and enforcement jurisdiction (the right to enforce rules).

With regard to prescriptive jurisdiction, the basic principle is that flag states must ensure that their ships comply with pollution regulations which are at least as strict as those adopted by the competent international fora (in particular the IMO).¹⁸ The coastal state, in turn, may impose additional regulations for ships passing through its territorial sea, but only as long as these regulations 'do not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules or standards'.¹⁹ The same principle applies in a coastal state's Exclusive Economic Zone (EEZ), which may be up to 200 miles wide, but in this case the additional requirements must also be approved by the IMO.

With regard to enforcement jurisdiction, the flag state again has the primary responsibility to enforce compliance with antipollution regulations applicable to ships flying its flag. However, the more serious the pollution caused by a vessel, and the closer the offence occurred to the coast, the more likely it becomes that the coastal state is entitled to take additional enforcement action. Thus, a vessel navigating in a coastal state's EEZ may be physically inspected by that state if there are clear grounds for believing that it has caused or threatens to cause significant pollution there, and if it refuses to provide the relevant information.²⁰ A vessel navigating in an EEZ may be detained by the coastal state if there is clear, objective evidence that a discharge by that vessel in the EEZ has caused or threatens to cause major damage.²¹ As a matter of fact, it will often be difficult to apprehend an offending ship while it is still in the EEZ in which it has committed the offence. Significantly, therefore, a port state, i.e. the state of the port in which a vessel finds itself, may also detain a ship for such an offence if it has been committed *outside* that state's territorial sea or EEZ. Such a measure may be taken at the request of another coastal state whose EEZ has suffered as a result of such an offence.²²

Atmospheric pollution

As regards the protection of the atmosphere, treaties have so far addressed three major problem areas: long-distance air pollution, depletion of the ozone layer and climate change. The relevant treaties here are all framework treaties. This means that they are quite different from UNCLOS, which encompasses all aspects of the law of the sea, but took 14 years to negotiate and 12 years to come into force. Framework treaties tend to have more modest objectives. They aim to take a first step, to test the waters with a view to further co-operation, and to enable the adoption of possible further measures through the adoption of protocols containing additional obligations. In general, this incremental approach appears to be more suitable for tackling environmental problems.

Rising concern about the effects of acid rain in Western Europe caused by long-distance air pollution contributed to the adoption of the 1979 Economic Commission for Europe (ECE) Convention on Long-Range Transboundary Air Pollution.²³ This convention does not in itself provide for specific antipollution measures, but it does create a general forum for the exchange of information and for consultation on further measures. More specific commitments were subsequently included in four protocols to the convention. A protocol on sulphur dioxide (SO₂) adopted in 1988²⁴ resulted in the projected 30% reduction of SO₂ emissions by 1993. A protocol on nitrogen oxides (NO_x) was concluded in 1989²⁵, a protocol on volatile organic compounds (VOCs) in 1991²⁶, and a further protocol on SO₂ in 1994.

Similarly, the 1985 Vienna Convention for the Protection of the Ozone Layer, prepared under the auspices of UNEP, is a mere framework convention providing a forum for research and for consultation on more specific measures in the future.²⁷ However, this convention acquired real teeth with the adoption of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer²⁸ (see Benedick, 1991). This protocol is significant for several reasons. First of all, it contains specific obligations to reduce the production and consumption of CFCs in phases. These measures were taken even though there was still considerable scientific uncertainty about the precise



Plate 5.2 Atmospheric pollution: steel factory located on the beach at IJmuiden, The Netherlands. Photo: Mark Edwards/Lineair

effects of CFCs on the ozone layer. This is a clear example, therefore, of the application of the precautionary principle (see below). Moreover, the protocol provided that parties could decide to revise these figures by a two-thirds majority vote of parties representing together at least 50% of the total consumption of the substance in question. This possibility was used for the first time at a conference of the parties in London in 1990.²⁹ Further revisions, providing for a total ban on the consumption and production of CFCs by 1996, were agreed in Copenhagen in 1992.³⁰ Thus, a worldwide decision on a phase-out of CFCs was decided upon in a few years' time, without conclusive scientific proof that this was necessary and without cumbersome ratification procedures.

A third framework treaty is the 1992 UN Convention on Climate Change.³¹ Again, the specific obligations contained in this convention are relatively modest. Importantly, however, it lays down the ultimate objective: the stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. It also provides for a detailed system of international accountability on measures taken to control emissions of greenhouse gases. This by itself could have a beneficial effect. Clearly, however, this is a much more controversial subject which will take much longer to tackle than the reduction of CFCs.

International transfers of hazardous waste

The key treaty governing international transfers of hazardous waste is the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and

Their Disposal, concluded under the auspices of UNEP.³² This convention provides essentially that hazardous waste may only be transferred from one state to another with the prior informed consent of the latter. While this is obviously a step in the right direction compared with the free-for-all situation existing before, the convention's approach has been criticised by environmental groups. They have argued that there can simply be no good reason why hazardous waste should be transferred from industrialised states to developing states at all. Moreover, it has been suggested that in practice it will often not be too difficult in a poor country to find an official who will give the required consent. Environmental groups have therefore argued in favour of a total ban on hazardous waste transfers to developing countries.

While such a total prohibition could not be included in the Basel Convention, it was included in two subsequent conventions with a more limited regional scope. The 1989 Lomé IV Convention between the member states of the European Community and some 80 states in Africa, the Caribbean and the Pacific (ACP) provides that the Community shall prohibit all export of such waste to the ACP states.³³ The 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Waste within Africa, concluded under the auspices of the Organisation of African Unity (OAU), also provides for such a total ban.³⁴ The two conventions are a reflection of widespread African concern at 'dumping' on their territories of hazardous waste coming from industrialised states. Unfortunately, the result of these selective bans might be that hazardous waste flows would simply be redirected to parts of the world where they could be disposed of with less difficulty. Significantly, therefore, the parties to the Basel Convention decided in 1994 that transfers of hazardous waste from OECD to non-OECD countries were to be halted.

Another problem with the Basel Convention is that radioactive waste has been explicitly excluded from its scope on the assumption that international transfers of this particular type of waste could be better dealt with under the auspices of the IAEA. However, the IAEA in 1990 merely adopted a non-binding Code of Practice on the International Transboundary Movement of Radioactive Waste.³⁵ While non-binding instruments are not necessarily less effective than binding ones, this has created the unfortunate impression that the IAEA is not particularly concerned about these transfers.

Risks of nuclear energy

So far, the environmental risks of nuclear energy have not given rise to the development of many binding rules of international environmental law. Typically, the Statute of the IAEA reflects the belief that the use of nuclear power should be encouraged and that this will bring 'peace, health and prosperity' to all. Accordingly, international regulation of the nuclear industry has tended to focus on the need to control the proliferation of nuclear weapons rather than on the need to protect the environment. The scope of the more radical international standards and procedures adopted by the IAEA, such as on-the-spot fact-finding by IAEA inspectors, is limited to non-proliferation aspects. Because relevant international regulation has remained the virtual monopoly of international organisations such as the IAEA, the nuclear industry



Plate 5.3 Dumping chemical waste, Kandy, Sri Lanka. Photo: Ron Giling/Lineair

has remained virtually untouched by the principles of international environmental law which have been emerging in other sectors. One reason for this sorry state of affairs is that within the IAEA the major nuclear powers tend to run the show. Non-nuclear states (who naturally have a stronger interest in environmental aspects) tend to have little impact on the proceedings.

One area in which the IAEA has played a pioneering role, however, is civil liability for nuclear damage, which has been the subject of four early, detailed conventions. The two most important ones are the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy,³⁶ adopted under the auspices of the OECD, and the 1963 Vienna Convention on Civil Liability for Nuclear Damage,³⁷ adopted under the auspices of the IAEA. Only the Paris Convention has been widely ratified. The first principle reflected in these conventions is that liability is absolute, i.e. that it is not necessary for the claimant to demonstrate fault or negligence. The second principle is that only the operator of the nuclear installation is liable, i.e. that the claimant need only address the operator. The third principle is that there is a ceiling to the amount of liability, enabling the operator to obtain insurance. The underlying ideas of this system are obvious: on the one hand, to facilitate access to damages for the individual claimant and, on the other hand, to avoid the potentially extremely high costs of a nuclear accident for the nuclear industry. This system later inspired the system established for civil liability for oil pollution damage by ships.

The Chernobyl disaster has contributed to some change of emphasis. The IAEA reacted almost immediately by adopting two conventions dealing with the aftermath of nuclear catastrophes. One was the 1986 Convention on Early Notification of a Nuclear Accident, which spells out the obligation of states to inform other states if an accident has occurred with a nuclear installation on their territory that may have transboundary consequences.³⁸ The other was the 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency.³⁹ None of these conventions has very far-reaching consequences. On the preventive side, a Convention on Nuclear Safety, providing safety rules for nuclear installations, was adopted in 1994. This is aimed mainly at the still existing unsafe installations in Eastern Europe.

4

Key international environmental treaties

International watercourses

- 1992 Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes

Marine pollution

- 1973 Convention for the Prevention of Pollution from Ships (MARPOL)
- 1982 UN Convention on the Law of the Sea (UNCLOS)
- 1992 Paris Convention for the Protection of the Marine Environment of the North-East Atlantic

Atmospheric pollution

- 1979 ECE Convention on Long-Range Transboundary Air Pollution – protocols on sulphur dioxide (SO₂), nitrogen oxides (NO_x), and volatile organic compounds (VOCs)
- 1985 Vienna Convention for the Protection of the Ozone Layer (Montreal Protocol and London and Copenhagen Amendments)
- 1992 UN Convention on Climate Change

Hazardous waste

- 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
- 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa

Nuclear energy

- 1986 IAEA Convention on Early Notification of a Nuclear Accident
- 1986 IAEA Convention on Assistance in the Case of a Nuclear Accident
- 1994 IAEA Convention on Nuclear Safety

Other

- 1991 ECE Convention on Environmental Impact Assessment in a Transboundary Context
- 1992 UN Convention on Biological Diversity

5.4 Five general principles of international environmental law

At present, there is no binding international charter which contains general principles of international environmental law. During the preparations for UNCED, attempts were made to draft an Earth Charter which would have served this purpose. However, no agreement could be reached on the desirability of such an approach. In the preceding sections, we have seen how conflicts of interest between rich and poor nations, between upstream and downstream states, between coastal states and flag states, between net exporters and net importers of hazardous waste and between nuclear and non-nuclear states often make it difficult to reach consensus. Nevertheless, there is now such an abundance of international instruments with regard to environmental issues that it is certainly possible to identify a number of basic principles on which these instruments are invariably based:

- the polluter pays principle
- the principle of non-discrimination
- the precautionary principle
- the principle of common but differentiated responsibilities
- the principle of intergenerational equity.

Most of these are reflected in the Rio Declaration on Environment and Development. Whether some or all of these principles reflect binding customary international law is questionable. What matters, however, is that they tend to be relied upon, either explicitly or implicitly, when drafting international environmental instruments.

The polluter pays principle

According to the polluter pays principle, the polluter should bear the expenses of carrying out the antipollution measures decided by the public authorities. The costs of these measures should thus be reflected in the costs of goods and services which cause the pollution. This longstanding principle, originally developed by the OECD, attempts to ensure that no distortions occur as a result of subsidies provided by the authorities. The principle has been widely accepted in the developed world and it has been included in recent conventions, such as the 1992 Treaty of Maastricht, the 1992 Helsinki Convention and the 1992 Paris Convention. However, the wording in these 'Northern' conventions is considerably stronger ('shall') than the wording used in the Rio Declaration on Environment and Development ('endeavour to'). This is a clear illustration that developing countries are less committed to the principle. Significant exceptions to the principle have occasionally also been accepted among developed countries, for instance in the instruments dealing with chlorides pollution of the Rhine, which provide that the costs of the measures shall be divided in a manner which bears little relationship to the amount of pollution caused by each individual state.

Principle of non-discrimination

According to the principle of non-discrimination, polluters causing transboundary pollution should be treated no less severely than they would be if they caused similar pollution within their own country. This is a procedural principle, also developed by the OECD, which by itself does not guarantee that the other state will suffer no undue harm. An important principle derived from the non-discrimination principle is that of the right of equal access. This entails that a victim of transboundary pollution should be granted no less favourable treatment than victims in the country where the pollution originated. Accordingly, he or she should have access to administrative and civil proceedings on the same basis as victims in the country where the pollution originated. These principles have been widely (although not necessarily invariably) applied in Western Europe and North America. There is little evidence, however, that they have found worldwide application.

Precautionary principle

According to the precautionary principle, lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation. The principle has been widely referred to in treaties concluded during the past few years. One of the clearest examples of the actual application of the principle are the measures taken under the Montreal Protocol on Substances that Deplete the Ozone Layer. After all, the scientific predictions and calculations on the basis of which the decision was taken to phase out the use of CFCs were far from conclusive. In its more far-reaching interpretations, the principle would imply a reversal of the burden of proof: potentially harmful activities could then only be undertaken if it could be convincingly demonstrated that they are not going to be harmful to the environment. Whether many states would accept such an interpretation seems questionable, however.

Principle of common but differentiated responsibilities

According to the principle of common but differentiated responsibilities, states should divide the costs of measures to protect the environment on the basis of the fact that they have made different contributions to global environmental degradation. This was one of the newer and more controversial principles included in the Rio Declaration. One of the clearest examples of the application of this principle may be found in the 1992 Convention on Climate Change. This convention not only accepts that developing countries need to comply with less strict standards than the developed countries; it also accepts that they are entitled to technological and financial assistance in order to help them meet their obligations under the treaty. The convention even acknowledges that developing countries are not required to comply with their obligations if this assistance has not been forthcoming. Obviously, the abandoning of the old rule that all states shall be subject to the same obligations will have far-reaching consequences in the future.

Principle of intergenerational equity

According to the principle of intergenerational equity, states are obliged to take into account the long-term effects of their actions affecting the environment. This principle attempts to emphasise that attention should not only be paid to long-distance effects but also to the long-term effects of human activity. After all, present-day decisions may restrict future uses of natural resources and may force upon future generations considerable clean-up costs. It cannot simply be assumed that future generations will be able to develop the necessary technology for this purpose. Some of the damage may even be irreversible. The principle of intergenerational equity is the key element in the definition of sustainable development. It has been included, for example, in the 1992 Helsinki Convention. One way of operationalising the principle would be to assume that current generations should not impose burdens upon future generations that they would not have accepted for themselves. One of the legal problems is of course that future generations do not yet exist so that it is difficult to take their views into account.

What these five principles have in common is that they try to address what is perhaps the key cause of environmental degradation: the off-loading of burdens. The polluter pays principle attempts to ensure that environmental costs of the production and consumption of a good are adequately reflected in its price, so that they are not off-loaded on the environment. The principle of non-discrimination attempts to ensure that the environmental risks of industrial activity are not off-loaded on neighbouring countries. The precautionary principle attempts to ensure that policy makers do not off-load on scientists the responsibility to take environmental protection measures now. The principle of common but differentiated responsibilities attempts to ensure that countries in the North do not off-load on countries in the South the duty to respond to environmental degradation for which the former bear the primary responsibility. The principle of intergenerational equity attempts to ensure that environmental risks of present-day activities are not off-loaded on future generations.

However, the status of these principles differs considerably. The older ones, such as the polluter pays principle and the non-discrimination principle, are perhaps more solidly established than the others. But then again, this may be too Northern a perspective. In the South, the principle of common but differentiated responsibilities would probably be regarded as the most fundamental. The principles also differ in the extent to which they offer clear guidance to policy makers. Probably the vaguest and least defined is the principle of intergenerational equity. It should also be recognised that some of the principles may be somewhat contradictory, depending on the interpretation that is given to them. For example, certain applications of the principle of common but differentiated responsibilities may be difficult to reconcile with the polluter pays principle. These contradictions are a result of the fact that the principles were developed at different times and for different purposes. They should not be regarded as forming part of a coherent and logically organised system.

5.5 Conclusion

International environmental law has developed into one of the fastest growing areas of international law. In response partly to widely perceived threats to the global environment and partly to the institutional deadlines imposed by the UNCED process, numerous innovative concepts in standard setting have been introduced during the past few years. Some of these new devices have been referred to above. They include the use of framework conventions in combination with subsequent protocols containing more detailed standards; the use of simplified amendment procedures to avoid the need for cumbersome ratification procedures; and the use of incentives by way of financial and technological assistance to encourage more states to join a particular agreement (see Sand, 1990; Brown Weiss, 1993, pp. 675–710).

The question arises, nevertheless, of what has been the actual result of this outburst of legislative activity. Are all these international instruments actually being implemented or have they remained mere pieces of paper? This question cannot easily be answered because the necessary information is generally unavailable (for a rare systematic analysis, see Sand, 1992). International fact-finding procedures in the field of the environment are few and far between. As we have seen above, the IAEA's inspection rights for nuclear facilities are limited to non-proliferation aspects, and a coastal state's right to inspect a polluting vessel is strictly limited in the interest of freedom of navigation.

The supervisory method employed most frequently in international environmental instruments is an obligation of the parties to report periodically on the measures they have taken to comply with their obligations. The information thus obtained is then reviewed by representatives of the parties. However, the quality of the material gathered in this way may vary considerably, and this may make it difficult to conclude with certainty whether obligations have actually been complied with. The value of the peer review method also tends to be limited by the fact that participants are often reluctant to publicly hold their opposite numbers accountable.

The experience of the European Union demonstrates that it certainly cannot be assumed that international environmental instruments are always faithfully implemented. In the EU, the European Commission is responsible for overseeing the implementation of EU legislation. Under Article 169 of the EC Treaty, the Commission is entitled to bring a case before the European Court of Justice if a member state fails to carry out its obligations. In recent years, the Commission has begun to employ this procedure more aggressively. In the environmental sector, the Court found 12 infringements in 1990, 19 in 1991 and nine in 1993 under this procedure (see Macrory, 1992, pp. 347–69). However, in view of the fact that 12 EU member states are expected to comply with more than 200 environmental instruments, these figures are not unduly alarming.

According to Louis Henkin's famous observation, 'Almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time' (Henkin, 1979, p. 47). International environmental law is no exception to this phenomenon. Moreover, law does not lose its significance if compliance is less than 100%. NGOs working in the field of the environment can attest to the fact that international environmental standards play a crucial role as a rallying point for the

worldwide mobilisation of shame. Examples include the global bans on whaling, nuclear waste dumping at sea and the production of CFCs. Without continuing pressure from non-governmental entities these bans would probably not have been internationally agreed upon. Once they were accepted, these new standards enabled NGOs to put pressure on individual states to adhere to them and to become parties to the international agreements in which they were included. Without the mechanisms of international law, such worldwide pressure would have been much more difficult to sustain.

However, in spite of the advances that have already been made, international environmental law is still in its infancy. The challenges that remain are formidable. Apart from the problems of implementation and enforcement referred to above, many new standards and procedures urgently need to be developed. Agenda 21, the lengthy programme of action adopted at UNCED, outlines the numerous areas in which further international regulation is required. Thanks to some of the new concepts discussed in this chapter, international environmental law is now in a better position to try and meet these requirements set by the world community.

Notes

- 1 11 *ILM* (International Legal Materials) (1972), p. 1416.
- 2 31 *ILM* (1992), p. 874.
- 3 International Court of Justice, press release No. 93/20, 19 July 1993.
- 4 International Court of Justice, press release No. 93/17, 5 July 1993.
- 5 OJ EC (Official Journal of the European communities) 1973 C 112/1.
- 6 25 *ILM* (1986), p. 503.
- 7 31 *ILM* (1992), p. 247.
- 8 Case 302/86, Danish bottles, [1988] *European Court Reports*, pp. 4627–33.
- 9 Case C-2/90, Wallonian waste, Judgement of 9 July 1992, not yet reported.
- 10 Decision of 11 March 1941, *Reports of International Arbitral Awards*, vol. III, para. 1965.
- 11 See Report of the International Law Commission on the work of its 45th Session, UN doc. A/46/10, pp. 161–72.
- 12 31 *ILM* (1992), p. 1312.
- 13 16 *ILM* (1977), p. 265.
- 14 20 OJ EC (1977), p. 240.
- 15 Case 21/76, [1976] *European Court Reports*, p. 1735.
- 16 21 *ILM* (1982), p. 1261.
- 17 32 *ILM* (1993), p. 1069.
- 18 Art. 211(2), UNCLOS.
- 19 Art. 21(2), UNCLOS.
- 20 Art. 220(5), UNCLOS.
- 21 Art. 220(6), UNCLOS.
- 22 Art. 218, UNCLOS.

- 23 18 *ILM* (1979), p. 1442.
- 24 17 *ILM* (1988), p. 707.
- 25 28 *ILM* (1989), p. 212.
- 26 31 *ILM* (1992), p. 569.
- 27 26 *ILM* (1987), p. 1529.
- 28 26 *ILM* (1987), p. 1541.
- 29 30 *ILM* (1991), p. 537.
- 30 32 *ILM* (1993), p. 874.
- 31 31 *ILM* (1992), p. 849.
- 32 28 *ILM* (1989), p. 657.
- 33 Art. 39, 29 *ILM* (1990), p. 783.
- 34 Art. 4, 30 *ILM* (1991), p. 773.
- 35 30 *ILM* (1991), p. 556.
- 36 55 *AJIL* (American Journal of International Law) (1961), p. 1082.
- 37 2 *ILM* (1963), p. 727.
- 38 25 *ILM* (1986), p. 1370.
- 39 25 *ILM* (1986), p. 1377.