

Chapter 3

International Environmental Law: Sources and Fundamentals

Introduction

The earth is plagued with a huge array of environmental problems, due largely to anthropogenic causes. These problems can be categorised as either local or global, depending on the scale or geographical spread of their impact. Though local problems are largely the concerns of nations, because of the apparent localised impact, it is now understood that sooner or later, such impacts will escalate and spread beyond national boundaries and may eventually assume proportions of global concern.

Awareness raising and sensitisation campaigns have often been employed to address environmental problems and concerns through changing attitudes. However, this strategy normally takes a long time to produce expected results. Often, extensive damage to the environment results. Therefore, the application of the law to address environmental problems, before they get out of proportion, is an imperative. Shaw (1997) cited Principle 24 of the Stockholm Declaration of 1972 as stating that international matters concerning the protection and improvement of the environment should be handled in a cooperative spirit. Principle 7 of the Rio declaration of 1992 emphasised the need for states to cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the earth's ecosystems.

Cunningham et al. (2003) define laws as rules set by authority, society or custom. Environmental law is defined as a special body of official rules, decisions and actions concerning environmental quality, natural resources and ecological sustainability. Its purpose is to regulate human behaviour and activity in order to prevent worsening situations, in line with Umozurike's (1995) observation that the absence of rules is an invitation to chaos and anarchy.

Addressing major environmental problems requires international effort, mainly through international conventions and treaties. This chapter therefore examines the sources of international environmental law. It discusses some important international environmental conventions that have been put into force.

Sources of International Environmental Law

Glahn (1970), Hughes (1992), Umozurike (1995) and Shaw (1997) present elaborate discussions and analyses of the sources of international law, which are also applicable to international environmental law. They identify four sources of international law: law-making treaties, international customs, general principles of law and written texts. Each of these are discussed further in the following sections.

Law-making Treaties

Treaties, known by a variety of names, ranging from conventions, international agreements, pacts, general acts and charters, through to statutes, refer to written agreements whereby partaking states bind themselves legally to act in a particular way to establish particular relations between them (Shaw 1997). Treaties can simply be defined as agreements between two or more states that seek to establish relationships between themselves, governed by international law (Umozurike 1995).

Treaties may arise in a number of ways, for example because of pressure from a state, groups of states or an international organisation (Hughes 1992). There are various types of treaties; only law-making ones are sources of international environmental law.

Law-making treaties are concluded between a number of countries acting in their own interests, with the intention of creating new rules that are adhered to later by other states, either through formal actions in accordance with the provisions of the treaties, or by tacit acquiescence in observance of the new rules (Glahn 1970). Such types of treaties are instruments through which a number of states declare their understanding of particular rules of law, which establish new general rules governing the future conduct of ratifying or adhering states; abolish or modify some existing customary or conventional rules of law, or create new international agencies.

In view of the sovereign nature of modern states, such treaties are initially binding only on states that sign and ratify them. If the initial number of ratifying states is small, the treaties do not create new rules of general international law. At best, only rules of particular or regional application are created. However, as acquiescence to the new laws, or formal ratification of them by additional states increases, and finally, when an overwhelming majority of all states accepts the new rules, they become part of general international law.

Although treaties are considered to be an effective and reliable source of international environmental law (Umozurike 1995; Shaw 1997), it is important to note that they may take several years to come into force. They normally take about three stages, as described by (Glahn 1970):

Negotiation

Treaties are normally drawn up through a process of negotiation coordinated by any authorised person or organisation. Diplomatic or other official channels may be utilised, a meeting of representatives may be arranged, or an international conference may be convened for the purpose.

Adoption and Authentication

Once the text of a treaty has been drafted in a formal form during the negotiation, adoption by the parties takes one of several courses: mutual consent, in the case of bilateral agreement; unanimous consent, in the case of treaties negotiated between a limited number of states; by the voting rules adopted by the conference, in the case of multilateral instruments negotiated by an international conference, or according to the voting rules provided either by the constitution of the organisation or by the organ or agency competent to issue such rules, in the case of treaties drawn up in an international organisation, or at a conference convened by such an organisation.

Authentication of the treaty is achieved when negotiators initial the text on behalf of their states; the text is incorporated into the final act of the conference at which it was made; and the text is incorporated into a resolution adopted by an organ of an international organisation, or negotiators append their signatures to the text of the agreement.

Ratification

A majority of modern international treaties become effective only on ratification. Virtually every state has developed detailed domestic regulations outlining the process of treaty ratification, but there are certain commonalities. The process is generally held to be an executive act, undertaken by the head of state of the government, through which the formal acceptance of the treaty is proclaimed. Until such acceptance is proclaimed, a treaty does not create obligations for the state in question, except in some rare instances where an agreement becomes effective by signature alone. Most ratification processes involve discussions in national assemblies (parliaments), and in some instances by senates, depending on the provisions of a state's constitution. The parliament or senate then mandates the head of state, or any other designated authority, to ratify the instruments on behalf of the state.

International Customs

Customs represent a second source of international environmental law (Glahn 1970; Umozurike 1995). In contrast to the normal meaning of the term, notably the description of a habit, a legal custom represents usage with a definite obligation attached to it.

The presence of customary international law is evident from the existence of an extensive body of detailed rules, which comprised the bulk of accepted general

international law until shortly after the end of the nineteenth century (Glahn 1970). Most of the rules governing such diverse rules as jurisdiction over territory, freedom of the high seas, privileges and immunities of states, and the rights of aliens fall into this sphere of law.

Some of the rules in question originated through the practices of a small number of states, which were adopted by other states because of their usefulness, until at last, general acceptance resulted in new rules of law entailing definite obligations. This is in line with Shaw's (1997) assertion that customs depend on a particular activity by one state being accepted by another state or states as an expression of a legal obligation or right. This is amply illustrated by Glahn (1970) who observes that a custom results from the existence of a single powerful nation in the West, which imposed its will on its neighbours in relation to certain matters. Eventually, other countries accepted the policy or practice, without challenge or protest. When the number of assenting states reached a near universal proportion, a new rule of law had been created.

Although customary international law is relevant in environmental issues, its impact is generally weak, because it recognises the principles of state or territorial sovereignty: that is the right of states to carry out activities for their own benefit. These include, for example, the right to develop industries and to carry out peaceful nuclear activity (Hughes 1992).

General Principles of Law

The statute ranks general principles of law recognised by civilised nations as the third source of international law (Umozurike 1995). General principles do not apply when there are relevant treaties or customs, but are simply called in to fill the gaps in the law so that the court is not incapacitated from giving a judgement, *non-liquet*. For example, a situation may arise where the court is considering a case whereupon it realises that there is no law, parliamentary statute or judicial precedent, covering a point exactly (Shaw 1997). In such instances the judge simply deduces a rule from already existing rules will be relevant, by analogy, or directly from the general principles that guide the legal system.

General principles therefore constitute a reservoir from which the courts may draw in appropriate cases, while recognising the dynamics of international law and the creative function of the courts in interpreting it (Glahn 1970). Early writers also drew inspiration from general principles, such as from Roman-Dutch law, in particular, the substantive, procedural and evidentiary aspects common to legal systems, and existing in both municipal and international laws. These principles are not applied as points of reference in passing judgments in the courts, but are useful guides in the application of the law.

Written Texts

Written texts, considered as subsidiary law determining agencies (Umozurike 1995), are another important source of international law. As Shaw (1997) states, the influ-

ence of academic writers on the development of international law is marked. In the heyday of natural law, the juristic opinions and critical analyses by academics were of crucial importance, while the role of state practice and court decisions were of less significance. However, the importance attached to the text depends on the prestige of the author and the extent to which the author's opinions withstand the test of time. Such writers, referred to by the statute as writers 'of various nations' (Glahn 1970), rise above national, racial and other subjective or prejudicial considerations. They are guided by objective reasoning and analyses. Based on these selection criteria, writers such as Gentilis, Grotius, Pufendorf, Bynkershoek, and Vattel stand out as the supreme authorities from the sixteenth to the eighteenth century. They determined the scope, form and content of international law. However, with the rise of positivism and the consequent emphasis on state sovereignty, treaties and customs assumed the dominant position in the exposition of the rules of the international system, to the extent that the importance attached to legalistic writing began to decline (Shaw 1997). This decline in importance notwithstanding, there are some textbook writers who have continued to exert tremendous impact on the evolution of some aspects of international law, for example Gidel on the law of the seas, and Oppenheim and Rousseau, whose general works on international law tend to be virtually referred to as classics.

Multilateral Environmental Agreements

As recognition of the interconnections in the global environment has advanced, the willingness of nations to enter into protective treaties has grown concomitantly (Cunningham et al. 2003). Often, governments sign these international agreements for prestige, to be part of the international community, and to avoid criticism. These agreements provide useful tools that could be employed by the international community to press for change. NGOs often use these same tools in their campaigns. Usually, violating signatory countries face the embarrassment of having to explain their actions at regular meetings. This could be incentive enough for them to consider changing. However, since treaties are only binding on signatory countries, and enforcement often relies on self-policing, only good faith can restrain nations prone to violation. This suggests that even signatory governments need some strong political will, and not just force, to evade the embarrassment of regularly giving explanations for violations, and to genuinely respect the terms of treaties.

International efforts to protect the natural environment can be dated to the 1870s. Switzerland first tried to establish a regional agreement to protect nesting sites of migratory birds (French 1992). In 1886, a convention was signed between Germany, The Netherlands, Luxembourg and Switzerland to regulate salmon fisheries. But it was not until the 1970s that the move to internationalise environmental policymaking gained serious momentum.

Governments have signed over 200 environmental treaties, covering subjects of shared concern, which include ocean pollution, endangered species, acid rain, habitat loss, hazardous waste production and export, climate change, biodiversity decline

and sustainable development (UNEP 1996). A few of these conventions are discussed below.

Convention on Biodiversity

The earth's biological resources are vital to humanity's economic and social development. There is growing recognition that biological diversity is a global asset of tremendous value to present and future generations (UNEP 2003). Despite this wide recognition, there is an alarming increase in the rate of species extinction, due to the continued execution of environmentally unsafe human activities.

In response to the growing impact on the biodiversity of uncontrolled human activities, the United Nations Environmental Programme (UNEP) convened an Ad Hoc Working Group of Experts on Biological Diversity in November 1988 to explore the need for an international convention to address the problem. Shortly afterwards, in May 1989, it established an Ad Hoc Working Group of Technical and Legal Experts to prepare an international legal instrument for the conservation and sustainable use of the earth's biological resources. As part of the terms of reference, the groups considered sharing the costs and benefits, resulting from biodiversity conservation, between developed and developing nations, as well as ways and means of supporting innovations by local people.

The effort culminated in the signing of the biodiversity convention by 168 countries at the 1992 United Nations Conference on Environment and Development (UNCED), popularly known as the Earth Summit, in Rio de Janeiro, Brazil. Article 1 of the convention spells out that 'the objectives of this convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity; the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding'.

Article 3 of the convention highlights the provision of the Charter of the United Nations and principles of international law which stipulate that states have 'the sovereign right to exploit their own resources in pursuant of their environmental 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'.

Article 10 provides that, as far as possible, each contracting party shall integrate considerations of the conservation and sustainable use of biological resources into national decision-making; adopt measures relating to the use of biological resources to avoid or minimise adverse impacts on biological diversity; protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements; support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced, and encourage cooperation between its gov-

ernmental authorities and its private sector in developing methods for sustainable use of biological resources.

The convention focused principally on the mechanisms to finance sustainable biodiversity, its use and protection, and designated the existing Global Environmental Facility (GEF) as the institutional structure responsible for carrying out its provisions. GEF is a major Trust Fund, established in 1991, as a joint venture of the World Bank, the United Nations Development Programme (UNDP) and the United Nations Environmental Programme (UNEP). One of the goals of GEF is to provide funds to facilitate sustainable development and the conservation of natural resources. The convention also highlighted the importance of indigenous knowledge in conservation.

Convention on Wetlands of International Importance

Both fresh- and saltwater wetlands are critical areas of biological productivity. Therefore, wetlands are not only ecologically important, but are also economically significant sites. Unfortunately, these sites are faced with serious problems, including catchment, destruction, pollution, and reclamation. It became necessary for countries to commit to ensuring that their destruction is halted through means of an international convention.

The Convention on Wetlands is an intergovernmental treaty adopted on 2 February 1971 in the Iranian city of Ramsar, on the southern shore of the Caspian Sea. It has come to be known popularly as the 'Ramsar Convention'. The convention entered into force in 1975. As of August 2007, it had 155 contracting parties, or member states, in all parts of the world (Ramsar 2007a).

The first obligation under the convention is for a party to designate at least one wetland, at the time of accession, for inclusion in the List of Wetlands of International Importance (the 'Ramsar List'). In addition, the party should continue to 'designate suitable wetlands within its territory' for the list (Article 2.1), the selection of which is based on their significance in terms of ecology, botany, zoology, limnology or hydrology (Ramsar 2007a). The addition of a site to the Ramsar list confers upon a party the prestige of international recognition, and expresses the government's commitment to take all necessary steps to ensure the maintenance of the ecological character of the site.

However, the convention provides that a contracting party may, because of its 'urgent national interests', delete or restrict the boundaries of a wetland already included in the list (Article 2.5), but that such deletions or restrictions should be compensated for by the designation of another wetland with similar habitat values, either in the same area or elsewhere as a Ramsar site (Article 4.2). In practice, only a handful of boundary restrictions have occurred. The only sites ever deleted from the Ramsar list (with three new sites designated in compensation) were judged on the basis that they did not meet any of the criteria that were actually set after their designation, so instead, new sites were designated. As of 1 September 2007, the 155 contracting parties had designated 1,675 sites for the Ramsar list, covering an area of 150,200,000 million hectares (1,502,000 km²) (Ramsar 2007b).

There is a general obligation for contracting parties to include wetland conservation considerations in their national land-use planning. This commitment is to ensure 'the wise use of wetlands in their territory' (Article 3.1). Parties are obliged to promote their conservation. It is important to note that Ramsar is the first of the modern global intergovernmental treaties on the conservation and sustainable use of natural resources. It is equally important to note that although UNESCO serves as Depository for the Convention, the Ramsar convention is not part of the UN and UNESCO system of environment conventions and agreements. The convention operates in close cooperation with five NGOs: BirdLife International, the International Water Management Institute (IWMI), Wetlands International, the World Conservation Union (IUCN), and the World Wide Fund for Nature (WWF) (Ramsar 2007a).

Convention on International Trade in Endangered Species

The Convention on International Trade in Endangered Species of Flora and Fauna (CITES) was signed by twenty-one nations in 1973. It was intended to regulate the explosive growth in the trade of endangered plant and animal species, at both national and international levels. CITES has three appendices, which determine the restriction placed on trade in each of the endangered species. Article II of the conventions (UNEP 2003) spells out that Appendix I shall include all species threatened with extinction, which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to further endanger their survival. It must only be authorised in exceptional circumstances. Appendix II includes all species, which although not necessarily now threatened with extinction may become so, if trade in specimens of such species is not subjected to strict regulation in order to avoid utilisation incompatible with their survival. Other species must be subject to regulation in order that trade in specimens of certain species may be brought under effective control. Appendix III includes all species which any party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the cooperation of the other parties in the control of trade.

Convention to Combat Desertification

Desertification is one of the most serious environmental problems in Africa, with implications for food security. Though desertification affects the African continent the most – two-thirds of the continent is desert or drylands – it is not a problem confined to drylands in Africa. It is a worldwide problem, directly affecting 250,000,000 people and a third of the earth's land surface, or over four billion hectares.

The issue of desertification was discussed globally at the UN Conference on Desertification held in Nairobi in 1977. Attempts to efficiently tackle the problem were crippled due to a lack of both administrative and financial support. Therefore in 1992, the United Nations Conference on Environment and Development

(UNCED) or the so-called Rio Earth Summit recommended the elaboration of a United Nations Convention to Combat Desertification (UNCCD) (www.unccd.entico.com/english/faq.htm). UNCCD was adopted in June 1994 and was opened for signature in October 1994 in Paris. It entered into force in December 1996, three months after the receipt of its fiftieth ratification. The convention is based on the principles of participation, partnership and decentralisation, the backbone of good governance, with the objective to:

...combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas (UNEP 1996).

The convention formulates a range of obligations on both affected country parties and on developed country parties. These include the following as general obligations: adopting an integrated approach addressing the physical, biological and socio-economic aspects of desertification and drought; giving due attention to the situation of affected developing country parties with regard to international trade, marketing arrangements and debt integrating strategies for poverty eradication into efforts to combat desertification; promoting cooperation among affected country parties in the fields of environmental protection and the conservation of land and water resources; strengthening sub-regional, regional and international cooperation; cooperation within relevant intergovernmental organizations; and determining institutional mechanisms and promoting the use of existing financial mechanisms and arrangements (UNEP 1996).

UNCCD now has more than 180 country parties, making it truly global in reach. UNCCD has reached maturity and is evolving from the preparation of National Action Programmes to their implementation. An assessment of programmes by the parties in 2000 and 2001 showed that the capacity strengthening efforts for key actors at the local level was successful in identifying and addressing challenges linked to sustainable development. Furthermore, the bottom-up approach of UNCCD helped to strengthen relationships between governments and local communities, particularly in larger countries. It also favoured the decentralised involvement of stakeholders and end users of natural resources in the development process (www.unccd.entico.com/english/faq.htm). UNCCD spells out that in order to achieve the objective, long-term integrated strategies would be employed 'that focus on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources'.

Convention on Substances that Deplete the Ozone Layer

The continuous use of substances that deplete the ozone layer, such as chlorofluorocarbons (CFCs), is seriously threatening life on earth. The ozone layer

is the only atmospheric shield that protects the earth from the destructive rays of the sun. By 1985, the ozone layer had become so depleted that a hole had developed over Antarctica. This discovery was based on extensive research, the results of which were widely publicised in international media.

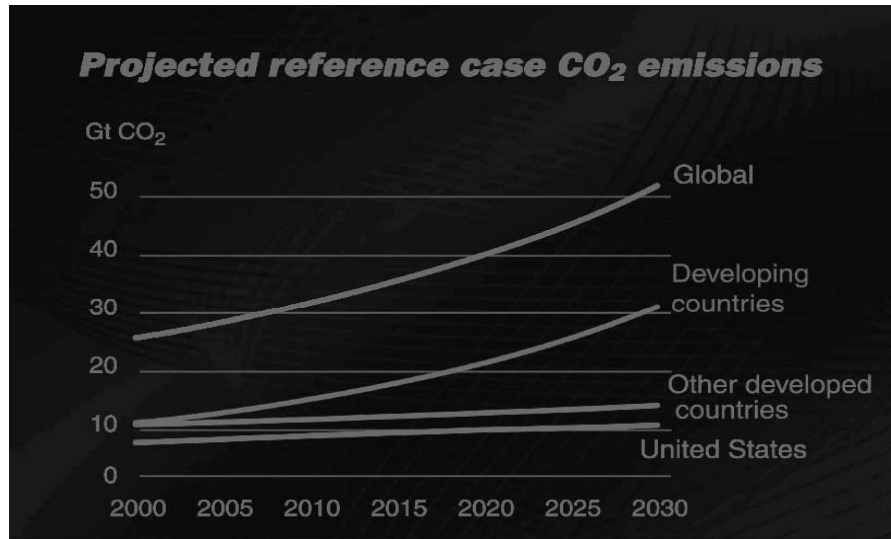
A series of meetings were held to discuss the issue. There was strong support for an international convention to be signed to address the problem. This convention, also known as the Montreal Protocol, was signed in 1987, adding specific obligations to the rather vague framework treaty known as the Vienna Convention. The protocol was strengthened in 1990. It set strict timetables for the phasing out of CFCs and other ozone-depleting substances (ODSs) by the year 2000. By July 1991, over seventy nations, thirty of which were from the developing world, had signed the convention. However, in recognition of their circumstances, developing nations were given a ten-year period of grace to reach full compliance with the terms of the protocol.

An interesting aspect of the convention, as stated in Article 10a, is that each party shall take every practicable step, consistent with the programmes supported by the financial mechanism, to ensure first that the best available, environmentally safe substitutes and related technologies are expeditiously transferred to parties operating under Paragraph 1 of Article 5; and second, that these transfers occur under fair and most favourable conditions (UNEP 2000).

Another important element is specifying controlled substances and products containing some of them in annexes. Annexes A, B, C, and E provide lists of controlled substances, indicating their ozone-depleting potentials. Annex D provides a list of products containing controlled substances specified in Annex A, including their custom code numbers. This provides the basis for proper identification, information, education and enforcement.

Convention on Climate Change

The signing of the convention on climate change was motivated by strong concerns that human activities had been substantially increasing the atmospheric concentrations of greenhouse gases; that these increases enhance the natural greenhouse effect; and that this will result on average in an additional warming of the earth's surface and atmosphere, with potential adverse effects on natural ecosystems and humankind (UN 2005). Over and above providing many goods and services that sustain rural livelihoods, promote environmental quality and advance economic development, natural resources serve as a first-line, defence against climate change (Agrawala et al. 2005). Projected carbon dioxide (CO₂) emissions up to 2030 are shown in Figure 3.1.

Figure 3.1: Projections of CO₂ Emissions

Source: Abareconomics (undated)

In spite of amounting evidence in support of climate change, this issue has remained one of the most controversial in international negotiations since the 1980s (Shimada 2004). While assessments of past and present emission patterns strongly influence debates over international climate policy, the central challenge is to limit future emissions (Baumert and Pershing 2004). Projections of future emissions are highly uncertain, particularly for developing countries.

United Nations Framework Convention on Climate Change

In 1988, the World Meteorological Organisation (WMO) and the United Nations Environmental Programme (UNEP) established the Intergovernmental Panel Climate Change (IPCC) to assess relevant information on climate change, covering impacts, adaptation and mitigation (Inriani 2005). A global agreement to mitigate climate change was proposed, culminating in the United Nations Framework Convention on Climate Change (UNFCCC). This convention was signed in 1992 at the massively attended United Nations Conference on Environment and Development in Rio de Janeiro, Brazil. Article 2 of the convention states: ‘The ultimate objective of this convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the convention, stabilisation of the greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.’

The convention took into account some the specific needs and circumstances of developing countries, and the fact that these countries are particularly vulnerable to the adverse effects of climate change. These countries would have to bear a disproportionate and abnormal burden. To this effect, developed nations were asked to take the lead in combating climate change. But all parties were obliged to cooperate towards the achievement of the objective. However, the convention did not contain concrete plans to attain this objective (Shimada 2004).

The Kyoto Protocol

A Conference of the Parties (CoP) to the UNFCCC is held at least once a year. At the third CoP in 1997 in Kyoto, Japan, the Kyoto Protocol was adopted. This defined policies to reduce greenhouse gas emissions (Idriani 2005). Annex A of the protocol lists six greenhouse gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulphur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs) (UN 2005). The core strategy for reducing greenhouse gas emissions is to reduce the burning of fossil fuels by using them more efficiently, a policy that was met with strong opposition. Opponents of the protocol argue that that this would cause net economic damage, without acceptance of the immense benefits that Canada, for instance, has enjoyed from thirty years of energy conservation.

An essential part of the Kyoto Protocol is its 'flexibility mechanisms' (Idriani 2005). These comprise international emissions trading (IET), by which industrialised countries (referred to as Annex I countries) can trade part of their emission budgets between themselves; joint implementation (JI), which allows industrialised countries to earn emission credits from emission reduction projects in other Annex I countries; and the Clean Development Mechanism (CDM), which permits industrialised countries to gain emission credits from emission reduction projects in developing countries.

It is apparent that only the CDM gives developing countries the opportunity to be directly involved in the implementation of the protocol, with direct implications for meeting the emission reduction targets of Annex I countries. It is important to note that the establishment of the CDM under the Kyoto Protocol has been greeted with mixed emotions from climate, forestry and development experts (Manguiat et al. 2005). Many methodological and generic issues regarding the implementation of CDM activities, and the role of CDM in climate protection and national development, remained unsolved up CoP II, held in Montreal Canada in 2005, including the role of afforestation and reforestation (AR) projects as a specific part of CDM (Box 3). Given that natural resource-related projects are also major activities supported by official development assistance, the relationship between development assistance funding, CDM and AR remains somewhat opaque. The procedure in the implementation of CDM is quite complicated, as can be seen from a summary by Manguiat et al. (2005):

- project participants have to select an approved baseline and monitoring methodology or develop a project-specific one, which then needs to be approved by the CDM Executive Board (EB) (the international body in charge of supervising the CDM);
- in parallel, they produce a 'project design document' (PDD) that explains and assesses the planned activity according to a given scheme and applies the methodology in practice;
- the PDD and methodology are then submitted to the 'Designated National Authority' (DNA, which is the new domestic institution required, among other things, to implement the CDM in the host country);
- the DNA will issue a letter of endorsement to confirm that the project is contributing to the host country's sustainable development priorities;
- the correct application of the methodology and the consistency of the PDD will then be *validated* by the 'Designated Operational Entity' (DOE) (i.e. auditing companies and the like) and then *registered* by the EB;
- the registration is the prerequisite for a project to actually produce marketable emission reductions.

The Basel and Bamako Conventions

African countries, as is the case of many other low-income countries of the world, have remained easy targets for the dumping of hazardous wastes. This is a serious problem facing the continent and other parts of the developing world, which necessitated the signing of the Basel and Bamako Conventions.

The Basel Convention, signed in 1989 by both industrialised, and some 115 developing countries, has the objective to:

...set up obligations for State Parties (or signatory states) with a view to: (a) reducing transboundary movements of wastes subject to a minimum consistent with the environmentally sound and efficient management of such wastes, (b) minimising the amount and toxicity of hazardous wastes generated and ensuring their environmental sound management (including disposal and recovery operations) as close as possible to the source of generation; (c) assisting developing countries in environmentally sound management of hazardous and other wastes they generate (UNEP 1996:359).

UNEP (1996) provides a summary of the general provisions of the convention, which include: a) parties prohibiting the import of hazardous wastes shall inform other parties of their decision and for these other parties not to permit the export of such wastes to the prohibiting parties; b) parties are to prohibit the export of hazardous wastes if the state of import does not consent in writing, in the case where the state of import has not prohibited the import of such wastes; c) parties

are to prohibit all persons under their national jurisdiction from transporting or disposing hazardous or other wastes unless such persons are authorised to perform such types of operations; d) states of export shall not allow the generator of hazardous or other wastes to commence the trans-boundary movement until they have received written confirmation that the notifier has received the written consent of the state of import.

The Bamako Convention was signed by twenty-six African countries in 1991. Its objective was to create a framework of obligations to strictly regulate the trans-boundary movement of hazardous waste to and within Africa (UNEP 1996). The convention is confined to hazardous wastes, defined as substances banned, cancelled or refused registration by government regulatory action for health or environmental reasons. Radioactive and other wastes are listed in the annexes, but exclude wastes from ship discharges, which are covered by another convention. Fortunately, the convention provides some latitude by giving signatories the responsibility to enact legislation covering the identification and categorisation of hazardous wastes not listed in it. Specifically, it states as requirements: a) the exchange of information amongst signatory states on incidents of hazardous wastes, and on approaches to solutions to identified problems; b) the establishment of monitoring and regulatory authorities to report and act on trans-boundary movement of hazardous wastes; and c) cooperation between signatory states and with international organisations in the fulfilment of the objectives of the convention.

Implementation Constraints and Achievements for Africa

There are many international treaties aimed at protecting the environment. Therefore, a drastic reduction in the number and intensity of environmental problems might reasonably be expected. This, unfortunately, is not the case. Why? Africa's greatest priority and preoccupation is economic development. The challenge is to find policies that can enhance economic growth, whilst at the same time preserving the natural resource base. Formulating sustainable environmental policies requires an appropriate mix of economic incentives and suitable institutional arrangements, based on a clear specification of property rights (ECA 2002).

From the general economic situation in Africa, it could easily be concluded that economic incentives are a far-flung reality for a majority of the countries. Even the funding from international donor agencies could hardly be sufficient, let alone be allowed, to defray such costs. Institutional arrangements for the definition of property rights are in principle possible, but it still remains doubtful as to whether such policies can be implemented, especially in situations where governments are rapidly becoming aware that huge revenues that would have previously fed central treasuries are to be directed at communities.

Indeed, efforts to address environmental concerns pose numerous challenges to the African continent, among which are the following identified by ECA:

- the mobilization of the scientific community to mount an integrated programme for methods, standards, data collection, and research networks for assessment and monitoring of soil, water, land, forest and atmospheric degradation
- the development of environment use models that incorporate both natural and human-induced factors that contribute to degradation and that could be used for resource use planning and management
- the development of information systems that link environmental monitoring, accounting, and impact assessment to degradation
- the implementation of policies that encourage sustainable environmental resource use and management and assist in the greater use of environmental resource information for sustainable livelihoods
- the implementation of economic instruments for the assessment of environmental degradation and encourage the sustainable use of environmental resources' (ECA 2002:xii).

Cunningham et al. (2003) note that many treaties present, more-or-less, vaguely good intentions. This is due particularly to the fact that environmental protection cannot generally be legislated for, nor enforced. We may doubt the credibility of such a statement, considering in particular the numerous activities of the UN. But it should be clarified that the role of the UN and other regional organisations is to bring stakeholders together to negotiate solutions to common environmental problems. The key word here is 'negotiate'. It may be observed that the implementation of most negotiated solutions depends more on moral persuasion and public embarrassment than on actual enforcement. It is of no surprise that although many African countries are signatories to a number of international conventions relating to environmental resources management, many are still not committing sufficient resources to tackle the problem. Degradation related to global concerns, such as climate change, is simply not a priority for many governments regionally, though its potential importance is recognised globally. The truth is that there are almost no domestic or external pressures at present for African countries to implement policies related to global environmental problems, given the low level of greenhouse gas emissions in many of these countries and the possibility that there is a net sink for carbon dioxide on the continent (ECA 2002).

Another constraint is the general rule that international agreements are only binding on signatory parties (Shaw 1997). Many nations are unwilling to give up their sovereignty through the signing of such agreements (Cunningham et al. 2003). This means that while some nations might be struggling to address, say, the issue of hazardous waste dumping, others will continue to promote the problem, for economic gains. One of the principal problems of international conventions is the tradition of unanimous consent (Cunningham et al. 2003). A single recalcitrant nation has the power to veto the wishes of the vast majority. A case in point is the situation where even though more than 100 nations at the UN Conference in Rio de Janeiro in 1992 vouched for restrictions on the release of greenhouse gases, the US

negotiators influenced the rewording of the convention. The changes meant that the convention 'urged', but did not 'require', nations to stabilise their emissions, with the implication that nations were not obliged to do so.

One fundamental challenge of environmental governance at a national level is the coordination of the multiple focal points of the various environmental agreements. Some African countries, such as Ghana, Uganda and Kenya have created national environmental management, or protection, agencies in a bid to overcome this problem (Minang 2007).

Overall, despite the numerous hurdles to their implementation, international environmental agreements have registered some great achievements for the African continent. These can be seen in two broad areas: socio-political reforms, and increasing environmental commitment. Socio-politically, a number of African states are beginning to adopt more devolved and inclusive ways of managing societies and their resources. The application of such obvious democratic principles finds expression not only in new environmental, forestry and wildlife laws, but also in founding constitutional, land and local government laws, as in the cases of South Africa, Lesotho, Namibia, Swaziland, Mozambique, Malawi, Zambia, Uganda, Tanzania, Kenya, Ethiopia, The Gambia, Burkina Faso, Mali, Senegal and Benin. At least thirty-five countries have enacted new codes in their forestry laws since 1990, or had these in draft by early 2002.

From the point of view of environmental commitment, a number of African governments, NGOs and some individuals have taken commendable initiatives to address environmental problems with varying degrees of success. UNCCD (cited in Minang 2007) reports on improvements in efforts to combat desertification in Burundi, Cape Verde, Djibouti, Ghana, Kenya, Morocco, Niger, Swaziland, Tunisia and Zambia. Some countries (Kenya and Burundi for example) have taken exemplary initiatives in the fight against desertification. In Kenya, the government created a national Environmental Management Authority in 1999. This semi-autonomous coordinating body for all multilateral environmental agreements draws members from all the major ministries, NGOs and research and academic institutions. The body promoted the creation of environmental committees at provincial and district levels to coordinate action on various environmental themes. An important element of the reforms in Kenya was the creation of the Desertification Community Trust Fund, launched in 2004. This is a government-funded programme that has supported projects in a number of districts. In Burundi, the land and forestry codes were revised to make them more compatible with actions to combat desertification. Measures were taken to serve as incentives for individuals and communities to invest time and resources in land rehabilitation activities. For example, land ownership rights were enhanced, especially for vulnerable groups such as widows and orphans, making it easier for them to obtain certificates that serve as deeds. Communities were encouraged to manage woodlands on communal land (Minang 2007). It is important to note that several other African countries have made significant

progress in the area of community forestry, which will be elaborated in Chapter Four.

Economic instruments to effect environmental policy, particularly the application of the polluter-pays principle, emphasised in both the Rio Declaration and Agenda 21, are already being implemented by some African countries. For example, the Zimbabwean government introduced a carbon tax on all vehicles in its 2001 fiscal year. The levy charged depends on the engine capacity of the vehicle. In South Africa, the National Water Act of South Africa makes provision for the payment of pollution and catchment levies. These funds are specifically intended to promote the protection of water resources. They can be tapped to support both the capital and operational costs of providing a higher level of service. Other economic instruments for environmental policy applied in Africa take the form of tax exemptions and tax credits. For example, Zambia has reduced or abolished import duties on pollution control equipment and environmentally sound technologies. Similarly, Mauritius provides manufacturing enterprises with duty exemptions, tax credits, and other incentives around the importation of pollution control equipment and environmental protection to facilitate economic, industrial and technological development (UNEP cited in ECA 2002).

Conclusion

This chapter has attempted a definition of international law, highlighting its development and environmental application. It focuses on international environmental law and its implication in a world beset by numerous environmental problems, which have both local and global impacts. We have noted that many efforts have been made to address these problems, at national, regional and international levels, and that problems with regional or global impacts can best be addressed through international cooperation.

It is clear that international environmental law has played an increasingly important role in addressing environmental problems, with regional and global implications. This has resulted in a proliferation of international treaties or conventions covering a wide range of environmental concerns. Of over 200 such conventions, just eight have been addressed: biodiversity, wetlands of scientific importance, endangered species, desertification, ozone layer depletion, climate change, and hazardous wastes. These include issues that may appear remote, but are significant to Africa, such as ozone layer depletion and climate change; and those that are immediately understood as constituting a problem on the continent, such as desertification, endangered species and hazardous waste dumping.

Despite their role in addressing environmental problems, international conventions are not without implementation constraints. First, there is an absence of a body that can enforce environmental protection at an international level. This absence is felt to the extent that negotiated solutions to global environmental problems rely more on moral persuasion and public embarrassment. The second factor is that international conventions are binding only on signatory nations, meaning that those

refusing to sign are free to continue perpetrating environmental problems. Finally, the tradition of unanimous consent makes it possible for a single nation to weaken the strength of international conventions.

In spite of the numerous constraints, international agreements have brought about some important reforms in Africa, with practical action on the ground. These achievements can be seen in the improving socio-political arrangements and growing environmental commitment in a number of countries.

Revision Questions

1. What is Environmental Law?
2. List and discuss the two sources of international environmental law, highlighting the strengths and weakness of each.
3. Why is the application of international environmental law necessary in environmental protection?
4. What are treaties? Discuss the stages required for them to come into force.
5. Name and discuss three international environmental agreements, highlighting when they were signed and their objectives.
6. Discuss the constraints in the implementation of international conventions in Africa.
7. What are the positive impacts of the international agreements on the African continent?

Critical Thinking Questions

1. Climate change threatens global economies but offers development opportunities for developing countries. Discuss.
2. Why is the Clean Development Mechanism of the Kyoto Protocol so called, and how should Africa engage with the mechanism?
3. What are the opportunities and constraints of Africa becoming one of the actors in the implementation of the Kyoto Protocol?
4. Despite the Basel and Bamako conventions, waste dumping has continued to constitute a serious problem, especially for Africa. What are the factors promoting this unfortunate practice?

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