

## CHAPTER 1 THE EVOLUTION OF INTERNATIONAL ENVIRONMENTAL LAW

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In 1974 international environmental law was a fledgling field with less than three dozen multilateral agreements.<sup>1</sup> Today international environmental law is arguably setting the pace for cooperation in the international community in the development of international law. There are nearly nine hundred international legal instruments that are either primarily directed to international environmental issues or contain important provisions on them. This proliferation of legal instruments is likely to continue. Therefore, it is important to assess what we have done and explore where we are headed.

### 1. History

*Prior to 1950.* Before 1900 there were few multilateral or bilateral agreements concerning international environmental issues. Relevant international agreements were based on unrestrained national sovereignty over natural resources and focused primarily on boundary waters, navigation, and fishing rights along shared waterways, particularly the Rhine River and other European waterways. They did not address pollution or other ecological issues. The dramatic exception to this pattern emerged in 1909 in the United States-United Kingdom Boundary Waters Treaty, which provided in Article IV that water "shall not be polluted on either side to the injury of health or property on the other."

In the early 1900s, countries began to conclude agreements to protect commercially valuable species. These agreements include the 1902 Convention for the Protection of Birds Useful to Agriculture, the 1916 Convention for the Protection of Migratory Birds in the United States and Canada, and the Treaty for the Preservation and Protection of Fur Seals signed in 1911. Only one convention focused on wildlife more generally: the 1900 London Convention for the Protection of Wild Animals, Birds and Fish in Africa.

By the 1930s and 1940s, states recognized the importance of conserving natural resources and negotiated several agreements to protect fauna and flora generally. These include the 1933 London Convention on Preservation of Fauna and Flora in Their Natural State (focused primarily on Africa), and the 1940 Washington Convention on Nature Protection and Wild Life Preservation (focused on the Western Hemisphere). During this period, states also concluded the well known International Convention for the Regulation of Whaling, as well as other conventions concerned with ocean fisheries and birds.

In the first half of this century there was little development and application of customary international norms to environmental issues. The classic Trail Smelter Arbitration between Canada and the United States, which affirmed Canada's responsibility for the damage from copper smelter fumes that transgressed the border into the state of Washington, was the notable exception. The language of the Arbitral Tribunal has been cited widely as confirming the principle that a state is responsible for environmental damage to foreign countries caused by activities within its borders, even though in this case Canada's liability for the damage was determined in the compromise establishing the Tribunal. One of the most important aspects of the Arbitration is the Tribunal's decision that if there is a threat of serious continuing harm, the state must cease the harmful conduct (which implies that damages would not be sufficient). The Tribunal required the parties to effectuate a monitoring regime to ensure that further damaging pollution did not occur. Because the Trail Smelter Arbitration is a rare example of international environmental adjudication in this early period, it has acquired an unusually important place in the jurisprudence of international environmental law.

*1950-1972.* During the 1950s and early 1960s, the international community was concerned with nuclear damage from civilian use (a by-product of the Atoms for Peace Proposal) and marine pollution from oil. Thus, countries negotiated agreements governing international liability for nuclear damage and required measures to prevent oil pollution at sea.

In the 1960s, environmental issues began to emerge within countries. Rachel Carson published her famous book *Silent Spring*,<sup>2</sup> and comparable books were published in European countries. In the United States, this new environmental awareness led to the adoption of the first major piece of federal environmental legislation, the National Environmental Policy Act of 1969,<sup>3</sup> which initiated the environmental impact statement. In 1971 the U.S. Council on Environmental Quality and the U.S. Environmental Protection Agency were formed.

Internationally, during the 1960s, multilateral international environmental agreements increased significantly. Conventions were negotiated relating to interventions in case of oil pollution casualties, to civil liability for oil pollution damage, and to oil pollution control in the North Sea. The African Convention on the Conservation of

Nature and Natural Resources was concluded in 1968.

*1972 and Beyond: The Modern Era of International Environmental Law.* Modern international environmental law dates to approximately 1972 when countries gathered for the United Nations Stockholm Conference on the Human Environment, and the United Nations Environment Programme (UNEP) was established. Many important legal developments took place in the period surrounding the Conference, including negotiation of the Convention on International Trade in Endangered Species, the London Ocean Dumping Convention, the World Heritage Convention, and the first of the UNEP regional seas conventions. Since then, there has been a rapid rise in international legal instruments concerned with the environment, to the point that we are concerned today with developing new means for coordinating the negotiation and implementation of related agreements, in particular their administrative, monitoring, and financial provisions.

Since 1970, hundreds of international environmental instruments have been concluded. Including bilateral and multilateral instruments (binding and nonbinding), there are close to nine hundred international legal instruments that have one or more significant provisions addressing the environment. Within the last two years alone, there have been about a dozen highly important multilateral negotiations occurring more or less in parallel.

## **2. The Changing Themes and Focus of International Environmental Agreements**

The subject matter of international environmental agreements now bears little resemblance to that in agreements concluded in the first half of this century, which focused on boundary rivers, fishing rights, and protection of particularly valued animal species. Today there are agreements to control pollution in all environmental media, conserve habitats, protect global commons, such as the high-level ozone layer, and protect resources located within countries that are of concern to the international community. Moreover, the U.N. Conference on Environment and Development held last June in Rio de Janeiro, Brazil, suggests that we are entering a new phase in international environmental law in which environmental and economic issues will be joined.

The scope of international agreements has expanded significantly since 1972: from transboundary pollution agreements to global pollution agreements; from control of direct emissions into lakes to comprehensive river basin system regimes; from preservation of certain species to conservation of ecosystems; from agreements that take effect only at national borders to ones that restrain resource use and control activities within national borders, such as for world heritages, wetlands, and biologically diverse areas. The duties of the parties to these agreements have also become more comprehensive: from undertaking research and monitoring to preventing pollution and reducing certain pollutants to specified levels. Notably, there is no example in which the provisions of earlier conventions have been weakened; rather, they have been strengthened or their scope has been expanded.

The international community is increasingly aware that it is important not only to monitor and research environmental risks, but also to reduce them. Thus states have moved from international agreements that mainly address research, information exchange, and monitoring to agreements that require reductions in pollutant emissions and changes in control technology. The Protocol on Sulphur Dioxide to the United Nations Economic Commission for Europe (U.N.-ECE) Convention on Long-Range Transboundary Air Pollution calls for a thirty percent reduction in national annual sulphur emissions or their transboundary fluxes by 1993, and the Montreal Protocol on Substances That Deplete the Ozone Layer, including the 1990 Adjustments and Amendments, requires that chlorofluorocarbons and halons, except for essential uses, be phased out by the year 2000. This emphasis on preventing pollution is likely to continue as we appreciate that the capacity of our environment to absorb the byproducts of production and consumption is limited.

The last seven years, from 1985 to 1992, illustrate the increasingly rapid development of international environmental law. During this period, countries have negotiated a surprisingly large number of global agreements. These include the Vienna Convention on the Protection of the Ozone Layer; the Montreal Protocol on Substances that Deplete the Ozone Layer with the London Adjustments and Amendments; the Protocol on Environmental Protection (with annexes) to the Antarctic Treaty, the Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal; the two International Atomic Energy Agency (IAEA) Conventions on Early Notification of a Nuclear Accident and on Assistance in the Case of a Nuclear Accident or Radiological Emergency; the International Convention on Oil Pollution Preparedness, Response and Co-operation, the Framework Convention on Climate Change; the Convention on Biological Diversity; the principles on forests; the non-binding legal instrument of the Arctic Environmental Protection Strategy; and the London Guidelines for the Exchange of Information on Chemicals in International Trade.

Developments at the regional level have proceeded at a similar rate. Member states of the United Nations Economic Commission for Europe have negotiated three protocols to the U.N.-ECE Convention on Long-Range Transboundary Air Pollution: a protocol providing for a thirty percent reduction in transborder fluxes of sulphur

dioxides, a protocol freezing the emissions of nitrogen oxides, and a protocol controlling emissions of volatile organic chemicals. These countries have also concluded agreements on environmental impact assessment, transnational industrial accidents, and transboundary fresh waters and lakes.

As part of the United Nations Environment Programme's regional seas program, countries have negotiated the South Pacific Resource and Environmental Protection Agreement with two protocols, one on dumping and the other on emergency assistance. Under the UNEP Caribbean Regional Seas Convention, parties have concluded a protocol on protected areas and are considering negotiation of a protocol on land-based sources of marine pollution.

There have been similar advances in legal instruments to safeguard freshwater resources. States concluded an unusually comprehensive agreement to protect the Zambezi River Basin. In 1987, Canada and the United States agreed to a protocol to their 1978 Great Lakes Water Quality Agreement, which addresses groundwater contamination affecting the Great Lakes and the airborne transport of toxics into the Great Lakes. Amazon Basin countries issued the Declaration of Brasilia and provided for the establishment of two new commissions under the auspices of the Amazon Pact, one to conserve the fauna and flora and the other to protect indigenous peoples. In Asia, members of the Association of Southeast Asian Nations (ASEAN) concluded the Convention on the Conservation of Nature, which provides ecosystem protection and controls on trade in endangered species. And in Africa, the Bamako Convention on Hazardous Wastes bans the importation of hazardous wastes and creates a strict regimen for moving such wastes within the African continent.

In Europe, the Single European Act now provides clear authority for the European Community to act on environmental and natural resource issues. The Community has already issued many directives and regulations aimed at controlling pollution and protecting the environment, and more are under consideration. The European Court of Justice has assumed an important role in ensuring that measures adopted by individual nations conform with Community directives. A new European Environment Agency is being established as part of the institutional framework of the European Community.

At the bilateral level, many international environmental legal instruments have been concluded during this period. In North America, the United States has signed bilateral agreements with Canada and Mexico on the transport of hazardous wastes. An agreement between Mexico and the United States addresses urban air pollution problems in Mexico City. In 1991, Canada and the United States concluded an agreement to control acid precipitation. In Latin America, Brazil and Argentina concluded an agreement that provides for consultation in case of nuclear accidents in either country.

Most of these agreements were considered impossible ten years ago; some were thought impossible only months before they were concluded. The provisions in the new agreements are generally more stringent and detailed than in previous ones, the range of subject matter broader, and the provisions for implementation and adjustment more sophisticated. This history is encouraging because it suggests that the international community's learning curve as reflected in international environmental law is surprisingly steep. This should give us hope that we may be able, with some success, to address the immense challenges of global environmental change and to meet the urgent need for environmentally sustainable development.

### **3. Equity: The Source of Conflict**

Increasingly, notions of equity or fairness are the focus of pointed conflict in the negotiation and implementation of international environmental instruments. The traditional notion of equity that has formed the basis of numerous environmental accords is one of national sovereign rights to exploit resources within a country's jurisdiction or control, combined with rights to shared or common resources (whether for natural resources or for pollution emissions) on a first-come, first-served basis. However, this traditional equity ethic has been deteriorating, and a new ethic is in the process of emerging. The search for a consensus on a new definition of equity is likely to be one of the major factors shaping international environmental accords in the future.

In international environmental law, the two issues that have given definition to equity are the allocation of natural resources and the responsibility and liability for pollution. Both have traditionally been based on rights acquired on a first-come, first-served basis, subject to increased demands for equitable sharing of the burden of conserving natural resources and controlling pollution.

The right of countries to control the exploitation and use of natural resources within their own jurisdiction or control has been repeatedly reaffirmed in international legal instruments. Traditionally states have also claimed the right to exploit resources outside national borders in commonly held areas on the basis of a first-come, first-served ethic in the absence of agreement to the contrary. This method of exploiting resources is reflected in the initial allocations of the geostationary orbit, the radio frequency spectrum, international waterways, fisheries, marine mammals, birds, and ocean mineral resources. Most international agreements have at least implicitly started from

this ethical presumption. Countries have then voluntarily agreed to constraints on their operational behavior affecting these shared or common resources. The two notable international agreements that did not begin with this first-come, first-served presumption, but rather started from a notion of shared responsibility for the resources at issue, are the Convention on the Law of the Sea and the Wellington Convention on Antarctic Mineral Resources, both of which resulted in complicated allocation schemes that have never gone into effect. Increasingly, however, areas once considered to be *res nullius* or belonging to no one are treated as part of the "global commons."

The second primary focus of international environmental legal instruments has been on controlling pollution. Again, states have traditionally asserted the right to pollute at self-determined levels. International instruments have limited these rights. In practice this has meant that states that were able to industrialize first, or those that have vast territories, have been able to establish pollution levels quite independently of other countries.

The problem is that countries that are beginning to industrialize and trying to reach parity with more industrialized countries do not want to be burdened with an early base line year, and those industrialized countries that have already started controlling pollution want to receive appropriate credit in the selection of the base line year. In the regional context of the U.N.-ECE, the concern is not only with equitably allocating acceptable levels of pollution for those countries that are still industrializing, but also with treating equitably those countries that have already reduced pollution levels significantly in advance of the target base year.

The controversial issues in defining equity with regard to pollution control are multiple: whether to establish common or differentiated pollution control standards (as in the per capita chemicals consumption base line standard for developing countries in the Montreal Protocol), what flexibility there should be in the time frame for meeting standards (as in the ten year delay permitted for developing countries in meeting Montreal Protocol chemical phase-out requirements), the extent to which countries should be held responsible for activities that contributed to global environmental degradation in the past (for example, liability for effects of ozone depletion on inhabitants of the southern hemisphere), the extent to which a group of countries should be held responsible to particular countries who may suffer harm tomorrow from actions taken globally today (for example, the claims of island countries that industrialized countries establish a trust fund today to cover the costs of the rise of ocean levels due to global warming tomorrow), and the more general question of the responsibility of the present generation to future generations for the care and use of the planet.

In developing a new definition of equity for environmentally sustainable development, several factors and issues must be noted and addressed. First, the global environment knows no political boundaries; its components are spatially and temporally interdependent. This means that no one country or even group of countries has the capability to protect the environment over time by its own isolated efforts. Consequently, there is an incentive for all countries to reach consensus on an equitable and effective basis for allocating responsibility for maintaining the planet.

Second, developing countries have control over resources that are important to the industrialized world, just as the industrialized world has always had control over resources needed by the developing world. The debates during the Biological Diversity Convention reflect this fact; the developing countries realized that the best reserves of biological diversity lie within their boundaries. In some ways this gave them bargaining power in the negotiations.

Third, developing countries are likely to suffer most from environmental degradation. This is both because poverty is a primary source of environmental degradation and because when rapid, human-induced global environmental change occurs, these countries have the least capacity to adapt.

Finally, future generations are, in my view, becoming a party to debates about equity. Sustainable development is inherently intergenerational, as are the agreements we negotiate. Yet future generations' interests have not been identified and adequately represented in the negotiations, the implementing measures, or in the compliance mechanisms of international environmental agreements. The present generation obviously has a built-in bias in favor of itself. Indeed the instruments that we have developed in the marketplace to consider environmental effects on future generations, namely externalities and discount rates, start from the perspective of the present generation. Thus, as we consider the future, it will be important to develop an international consensus on the definition and outlines of the concept of intergenerational equity.

#### **4. Emerging Trends in World Environmental Law and Order**

In the next two decades, the joining of environmental protection and economic development will grow. The burgeoning new field of environment and trade reflects this linkage. While trade law has operated under the relatively unified and broad framework of the General Agreement on Tariffs and Trade for more than forty years, fledgling international environmental law still consists only of many separate and disparate legal instruments. It is not surprising then that most environment and trade issues are discussed almost exclusively within the GATT

context. The environment and trade issues move in two directions: environmental protection practices affect trade, and trading practices affect environmental conservation. Thus, it will be important to move to a *modus vivendi* in which environmental and trade concerns are accorded comparable legitimacy, and both are viewed as important elements of sustainable development.

More generally, in the quest for environmentally sustainable development, the focus will likely move to considering environmental concerns at the front end of the industrializing process, so as to prevent pollution, minimize environmental degradation, and use resources more efficiently. This should mean an increasing concern with making the whole system of production environmentally sound. If so, international environmental law will reflect this emphasis by focusing on standards and procedures for preventing pollution and minimizing environmental degradation, rather than on liability for damage, and on providing incentives to companies to use environmentally sound processes. Second, the formulation of nonbinding legal instruments, or "soft law," is likely to increase more rapidly than the negotiation of formal international conventions. This is because when the instrument is nonbinding, agreement is normally easier to achieve, the transaction costs are less, the opportunity for detailed strategies to be set forth are greater, and the ability to respond to rapid changes in our scientific understanding of environment and development issues are more vast.

Third, the growing adoption of new approaches, duties, and procedures in international environmental accords is likely to continue. These include the precautionary principle or approach and the duties to consult with affected states, to prepare an environmental impact assessment before undertaking certain projects, to provide emergency assistance for environmental accidents or disasters, to monitor activities, and to make relevant information available.

Finally, UNCED and the 1992 Rio Declaration may be viewed as legitimizing the importance of public participation in environmental decision making and of public access to relevant information. The international institutional system in which environmental legal instruments are imbedded is likely to continue to become more diverse and to include increasingly larger numbers of nongovernmental organizations of various kinds. While four decades ago we could speak of an international system focused almost exclusively on nation-states and their subunits, today the system includes national governments (and local governments), intergovernmental organizations, and nongovernmental organizations as essential components constantly interacting. NGOs are likely to continue to expand their influence in the negotiation, implementation, and compliance process of international environmental legal agreements. The information revolution should greatly facilitate this increased role of NGOs in international environmental decisionmaking.

### **5. The Broader Perspective**

The concept of national interest, which has long been used to address foreign policy decisions, is not a very useful construct for analyzing global environmental problems in the long-term. National interest can be defined as national preferences, or the preferences of a country's decisionmakers. On the global scale these interests are often considered in terms of a zero-sum gain. The implicit assumption is that one country's national interest is necessarily opposed to another's. But when addressing global environmental issues the interest is a common one: the overall maintenance of the world's environmental systems. This becomes apparent as we look into the future because no community today can by itself conserve the planet for even its own descendants.

The physical setting in which all peoples are locked together in a common global environment for the foreseeable future means that it is increasingly futile to posit national interests that over the long term can be opposed to another country's national interest in the environment. The rapid advances in international cooperation, as demonstrated in international environmental law, suggest countries are implicitly beginning to recognize this need to coordinate long-term interests.

The international environmental agreements negotiated during the last two decades reflect a commonality of interests. In many international legal instruments, states have agreed to constrain "operational sovereignty," while continuing to retain formal national sovereignty. The conventions on ozone depletion, transboundary shipments of hazardous waste, air pollutants such as nitrogen oxides and volatile organic chemicals, and the Antarctic environment illustrate this constraint. In other agreements, states have arguably strengthened their operational sovereignty by focusing on national plans and actions and dissemination of these documents to other parties to the agreements. The recent Framework Convention on Climate Change and the Convention on Biological Diversity reflect this approach. Nonetheless in these instances, states have set up an international process for monitoring the health of the environment and for providing other benefits to parties. In the climate change convention, the international procedures are sophisticated and far-reaching, and they could lead to substantial international consideration and evaluation of national measures to mitigate climate change. Thus, the international environmental agreements examined in this article point in the same direction--a recognition of the benefits of international

cooperation and an increased willingness to agree to obligations directed to protecting the environment.

While countries may share a commonality of interests in maintaining the robustness and integrity of our planet, there are deep differences among them over the equitable allocation of burdens and benefits in doing so. These were vividly displayed at the Rio Conference meeting and are reflected in more recent agreements. Moreover, states do not agree on priorities--whether to satisfy immediate needs to alleviate poverty and local environmental degradation or longer-term needs to protect the robustness and integrity of the biosphere. The clashes extend to communities and groups at the local and transnational levels. These clashes could intensify in the next two decades, as countries (and communities) try to reach consensus on what is equitable in the context of environmentally sustainable development. Unless resolved, they could lead to inefficient and ineffective outcomes that are inadequate to the task of conserving our global environment and ensuring sustainable development for future generations.

#### FOOTNOTES Chapter 1

<sup>1</sup> Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 GEO. L. J. 675-84, 702-10 (1993). Copyright 1993. Reprinted by permission.

<sup>2</sup> Rachel Carson, *SILENT SPRING* (1963).

<sup>3</sup> 42 U.S.C. § 4321 (1988).