

The Principles, Structure, and Implementation of International Environmental Law



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GLOBAL CHANGE
INSTRUCTION PROGRAM



University Corporation for Atmospheric Research

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Understanding Global Change: Earth Science and Human Impacts

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by Armin Rosencranz, Paul Kibel, and Kathleen D. Yurchak

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A note on this series

This series has been designed by college professors to fill an urgent need for interdisciplinary materials on global change. These materials are aimed at undergraduate students not majoring in science. The modular materials can be integrated into a number of existing courses—in earth sciences, biology, physics, astronomy, chemistry, meteorology, and the social sciences. They are written to capture the interest of the student who has little grounding in math and the technical aspects of science but whose intellectual curiosity is piqued by concern for the environment. For a complete list of materials contact UCAR Communications (see previous page).



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Preface

The information in this module is targeted at undergraduate college students with an introductory grounding in government, history, and the natural sciences. Although the topic is international environmental law, the materials do not require any formal legal education.

The introduction and first five chapters set forth the fundamental norms and institutions that comprise international environmental law. Chapters VI to XI look at six specific topics within the field: air pollution and protection of the atmosphere, hazardous waste, endangered species, international rivers, the global commons, and forest ecosystems. These topics are considered independently, and not in any thematic progression. Therefore, while covering all six of these topics will provide students with a comprehensive survey, teachers are invited to focus greater attention and class time on particular topics.

For those who want to undertake more in-depth or specialized research, I have included a list of additional readings. Many of these materials assume a background in international and environmental law. Nonetheless, I urge you to stretch your abilities and explore these texts.

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Introduction

Because of growing international trade and the transboundary effects of pollution and natural resource degradation, environmental problems are no longer local. Regional and national environmental policies impact, and are in turn impacted by, international developments. The debates over the environmental implications of the trade arrangements with the European Union and under the North American Free Trade Agreement and the General Agreement on Tariffs and Trade have made this point abundantly clear. To deal with these new global dynamics, the field of international environmental law has burgeoned over the last two decades.

International agreements are playing an ever more important role in global efforts to preserve and improve the environment. While these agreements often omit specific binding obligations, they have a significant impact. They serve as a means to build and demonstrate international consensus on environmental issues. They place diplomatic pressure on participating countries to adopt implementing legislation at home. They often establish commissions and informational institutions that collect and disseminate data on environmental issues. While none of these functions contains the coercive power of “hard” law, they contribute greatly to global environmental protection efforts.

In this education module, we will explore the basic principles, structure, and implementation of international environmental law. First, we will set forth the fundamental norms and institutions that comprise international environmental law. Then we will look at six specific topics within the field—air pollution and protection of the atmosphere, hazardous waste, endangered

species, the global commons, international water-courses, and forest ecosystems. These materials should provide both a conceptual framework and a series of concrete examples. Taken together, these two components should provide students with a good overview of the field of international environmental law.



I. What is International Environmental Law?

Environmental Laws in General

Environmental laws are the standards that governments establish to manage natural resources and environmental quality. The broad categories of “natural resources” and “environmental quality” include such areas as air and water pollution, forests and wildlife, hazardous waste, agricultural practices, wetlands, and land-use planning. In the United States, some of the more widely known environmental laws are the Clean Air Act, the Clean Water Act, the National Environmental Policy Act, and the Endangered Species Act. The body of environmental law includes not only the text of these laws but also the regulations that implement and the judicial decisions that interpret this legislation.

In general, the standards set forth in environmental laws can apply to either private parties or the government. The Clean Air and Clean Water Acts, for example, are frequently used to regulate the polluting activities of private enterprises. These laws mandate certain pollution-reducing technology or limit the levels of pollution for power plants and factories. The National Environmental Policy Act (NEPA) applies only to the actions of the U.S. government. NEPA requires that the federal government undertake a comprehensive environmental impact assessment before it can proceed with projects that are likely to harm the environment.

Distinguishing National Law from International Law

To understand the nature of international environmental law, one must first understand the difference between national and international law. National law is law that is adopted by the government of an individual country. In the United

States, the most common examples of national law are federal and state legislation and judicial decisions. Agency regulations and executive orders would also fall within this category.

Although these national laws are adopted by an individual country, they may have international impacts. A foreign manufacturer whose defective product injures a person living in the United States may be held liable for resulting damages under U.S. law. The U.S. Corrupt Practices Act prevents a U.S. corporate executive from bribing a foreign government official. While these laws affect international activities and non-national parties, they are generally not considered international law. Rather, they are considered *extraterritorial* applications of national law.

International law, on the other hand, concerns agreements among different nations, or between citizens or corporations of different nations. Agreements or treaties among different nations are generally referred to as public international law. Contracts between private parties (corporations or citizens) residing in different nations are generally referred to as private international law. Because the field of international environmental law focuses on the relations and agreements among nations, it is part of public international law.

Distinguishing between Hard and Soft International Law

A distinction is often made between hard and soft international law. Hard international law generally refers to agreements or principles that are directly enforceable by a national or international body. Soft international law refers to agreements or principles that are meant to influence individual nations to respect certain norms or incorporate them into national law. Soft international law by itself is not enforceable. It serves to



articulate standards widely shared, or aspired to, by nations.

Similar parallels can be found at the national level. Often an official, a legislative body, or an agency will announce a new public policy or priority. In this announcement, or proclamation, there are often pledges to incorporate this new policy or priority into specific legal provisions. While the announcement itself is not enforceable in court, it nonetheless can have a powerful influence on the development and implementation of specific legal provisions.

Private international law generally concerns business transactions between citizens or corporations of different countries. Because most of the rules governing these private transactions are enforceable in the courts of the concerned countries, these rules are usually deemed hard international law. Most of international environmental law, however, concerns general principles agreed upon among nations. Although these principles sometimes oblige countries to adopt implementing legislation, they are not usually enforceable on their own in court.

The soft status of international environmental law, and most international law, is a result of concerns over sovereignty. Nations are generally reluctant to surrender control over their territory, peoples, and affairs to external international authorities. Even when nations have joined in international agreements, many of them have added reservations to preserve their right to decline to be bound by particular parts of the agreement. The exercise of this power weakens the total effectiveness of many international agreements.

Means of Implementing and Enforcing International Environmental Law

There are forums where international environmental disputes can be adjudicated, such as national courts, the International Court of Justice, and international arbitration panels. These forums, however, generally require that the disputing parties voluntarily submit to the jurisdiction of the court or panel. Additionally, even when these forums obtain jurisdiction over an international environmental dispute, they must rely on the cooperation of national govern-

ments to enforce rulings. For economic and political reasons, this cooperation is often withheld.

A small number of environmental agreements have established international institutions that can directly impose trade sanctions (such as the Montreal Protocol, discussed on p. 20) or have authorized member states to impose trade sanctions against violating parties (such as the International Convention for the Regulation of Whaling, discussed on p. 29). For instance, in response to Japan's violation of the International Whaling Commission's whaling moratorium, the United States threatened to restrict Japanese fishing vessel activity in U.S. territorial waters. Japan elected to accede to the whaling moratorium rather than suffer any such restrictions.

The type of sanctions envisioned under the Montreal Protocol and International Whaling Commission are procedurally very difficult to impose. In general, there is no international body authorized to directly enforce international environmental law. The task of direct enforcement is left to the member nations, whose governments propose and adopt implementing policies. Sometimes the implementing national legislation is identical to the international agreement. For example, Canada implemented the Migratory Birds Treaty (with the United States) by adopting the Migratory Birds Treaty Act. Because the language of this act is identical to language in the treaty, the law is basically a legislative codification of the international agreement.

Other times, however, the international environmental agreement is of a general nature and national governments must draft and implement more specific laws. For instance, in 1989 the International Convention on Transboundary Movement of Hazardous Waste was signed in Basel, Switzerland. This convention forbids the export of hazardous wastes to countries that lack "adequate means to dispose of them." Under the terms of the convention, signatory nations are called upon to draft their own more specific national laws to implement this pledge.

Although international institutions are generally not responsible for directly implementing and enforcing international environmental law, they often play important monitoring, informational, and diplomatic roles. For example,



agendas adopted at the 1992 Convention on Environment and Development at Rio de Janeiro created a new international body, the Commission on Sustainable Development (CSD). The CSD meets yearly at the United Nations in New York to review and advance the implementation of Agenda 21—an enormous and complex mandate. Most global agreements, such as the Biodiversity Convention and the Framework Convention on Climate Change, are implemented by an annual or biennial Conference of Parties (COP). These COPs lack the power to bring enforcement actions against either governments or private parties. They help monitor national compliance by requiring member nations to submit annual reports. Through meetings and publications, COPs also provide a forum to discuss and debate issues associated with the implementation of the agreement.

There are other institutions similar in function to the CSDs and the COPs. The North American Commission on Environmental Cooperation (NACEC), based in Montreal, Canada, monitors compliance with the North American Agreement on Environmental Cooperation, one of the side agreements under the North American Free Trade Agreement (NAFTA). The European Environmental Agency, based in Copenhagen, Denmark, monitors the compliance of individual European countries with environmental directives adopted by the European Union.

Although the CSD, COPs, NACEC, and the European Environmental Agency indicate that the international community is trying to improve compliance with environmental agreements, there is still a lack of effective implementation and enforcement. A 1992 study by the U. S. General Accounting Office concluded that international environmental agreements lack adequate procedures to monitor and ensure compliance. Countries have become skilled in negotiating international environmental agreements, but they are much less skilled at making the agreement operate effectively.

In the past two decades, states have also used economic incentives and trade bans to encourage compliance with international environmental agreements. For example, the Montreal Protocol,

the Framework Convention on Climate Change, and the Biodiversity Convention provide economic incentives in the form of technical assistance, technology transfers, and money to build the administrative capacity of national environmental agencies. These incentives have been of particular value in promoting the involvement and compliance of developing countries—part of the Rio bargain between northern (developed) and southern (developing) countries. The Global Environmental Facility (GEF), a new international funding institution, also provides money for training, equipment, and enforcement related to environmental protection measures. Some recent international environmental agreements, such as the Biodiversity Convention, have designated the GEF as their exclusive funding mechanism.

Jurisdiction for Disputes: Courts, Parties, and Enforcement

Roughly speaking, jurisdiction may be defined as a court's legal ability to hear a complaint. If the subject matter of the case is not within the scope of a court's jurisdiction, or if one of the parties, either the one bringing the case (plaintiff) or the one against whom it is brought (defendant) is not within a court's jurisdiction, the court will not hear the dispute. This is particularly relevant to international environmental law for a number of reasons. First and foremost, if a treaty or convention does not specify an international forum that has subject-matter jurisdiction, often the only place to bring a suit with respect to that treaty is in the member state's domestic court system. This then presents at least two additional hurdles. If the member state being sued does not have domestic implementing legislation in place to hear the dispute, there will be no forum available. Even in the event that the domestic legislation provides for suits of this nature, the judges who decide the case are residents of the country against which it is brought, and the resulting potential conflicts of interest are apparent.

With respect to parties, only nations are bound by treaties and conventions. In international forums, such as the International Court of Justice, countries must consent to being sued in order to preserve their sovereignty. Thus, it is often impossible to sue a country. In any case, it is often a



transnational corporation (TNC), not a country, that has violated an international agreement. It is nearly impossible to sue a country for not enforcing its laws against a TNC or for not enacting sufficient implementing legislation.

The final difficulty in the jurisdictional arena is the question of who may bring a suit. Often, only countries may sue countries, not individual citizens and not nongovernmental organizations. This has huge repercussions in that the environmental harm must be large and notorious for a country to even notice it. Second, for a country to have a stake in the outcome of the subject matter, some harm may have to cross the borders of the violating country into the country that is suing. Finally, even if transboundary harm does exist, the issue of causation, especially in the environmental field, is often impossible to demonstrate with any certainty.

In addition, in all fields of international law no country is ever in perfect compliance with every international obligation. Moreover, some countries are substantially more powerful than others. This may seem self-evident and unimportant, until one considers that suing another country may expose the plaintiff country to retaliatory actions. In spite of this political reality, however, Mexico successfully challenged the United States in the World Trade Organization in the Tuna-Dolphin Case, and several Asian countries successfully challenged the United States over U.S. efforts to compel shrimp-exporting countries to harvest shrimp without harming turtles.

The enforcement issue is one where advocates for a safer environment often find themselves stymied. The entirety of international law, beyond the environmental field, remains largely unenforceable, even if a treaty or convention provides for specific substantive measures to be taken by a country (which is not always the case, since many treaties merely provide frameworks), and even if a forum for litigation or dispute resolution is specified or sanctions by member states for noncompliance are authorized. A country cannot be forced to do what it is not willing to do. One can sanction the country, order damages, restrict trade, or, most frequently, declare noncompliance, but beyond that, if a country will not comply, there is very little to be done.

Countries usually accept or avoid international environmental obligations because it is in their economic self-interest to do so. Nations rarely take actions that may harm their domestic economy or their international trade for altruistic reasons. They take these actions expecting some economic or political benefit sooner or later.



II. Established Norms of International Environmental Law

Norms are general legal principles that are widely accepted. This acceptance is evidenced in a number of ways, such as international agreements, national legislation, domestic and international judicial decisions, and scholarly writings. The leading norms in the field of international environmental law are addressed below.

- (A) Foremost among these norms is Principle 21 of the 1972 Stockholm Declaration on the Human Environment. Principle 21 maintains that “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 law and development 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.**”

This is based on the ancient Roman maxim, *sic utero tuo et alienum non laedas*, roughly translated as, “don’t behave in a way that harms your neighbor.” Most international environmental agreements that have been negotiated over the past 20 years have reaffirmed this principle, including Agenda 21 and the Biodiversity Convention, both adopted at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, in June 1992 (commonly called the Earth Summit).

- (B) Another widely shared norm is the **duty of a state to notify and consult** with other states when the first state undertakes an operation (such as the construction of a power plant) that is likely to harm neighboring countries’

environments, such as impairing air or water quality in downwind or downstream states.

- (C) Over and above the duty to notify and consult, a relatively new norm has emerged whereby states are expected to monitor and assess specific environmental conditions domestically and disclose these conditions in a report to an international agency or international executive body created by an international agreement and authorized by the parties to the agreement to collect and publicize such information.
- (D) Another emerging norm is the guarantee in the domestic constitutions, laws, or executive pronouncements of several states, including India, Malaysia, Thailand, Indonesia, Singapore, and the Philippines, that all citizens have a **right to a decent and healthful environment**. In the United States, this fundamental right has been guaranteed by a handful of states but not by the federal government.
- (E) Most industrialized countries subscribe to the **polluter pays principle**. This means polluters should internalize the costs of their pollution, control it at its source, and pay for its effects, including remediation or cleanup, rather than forcing other states or future generations to bear such costs.
- (F) Another new norm of international environmental law, which is also articulated in Agenda 21, is the **precautionary principle**. This is basically a duty to foresee and assess environmental risks, to warn potential victims of such risks, and to behave in ways that mitigate such risks.



- (G) **Environmental impact assessment** is another widely accepted norm of international environmental law. Typically, such an assessment balances economic benefits with environmental costs. The logic of such an assessment dictates that before a project is undertaken, its economic benefits must substantially exceed its environmental costs.
- (H) Another recent norm is to **invite the input of nongovernmental organizations (NGOs)**, especially those representing community-based grassroots environmental activists. This NGO participation ensures that the people who are likely to be most directly affected by environmental accords will have a major role in monitoring and otherwise implementing the accord.
- (I) In October 1982, the United Nations General Assembly adopted the World Charter for Nature and Principles of Sustainable Development. This agreement expressly recognized the principle of **sustainable development**, which was defined as using living resources in a manner that “does not exceed their natural capacity for regeneration” and using “natural resources in a manner which ensures the preservation of the species and ecosystems for the benefit of future generations.” The principle of sustainable development was also acknowledged in the 1987 report *Our Common Future*, published by the United Nations World Commission on Environment and Development (which was chaired by Gro Harlem Brundtland, prime minister of Norway). This report defined sustainable development as “humanity’s ability . . . to ensure that [development] meets the needs of the present generation without compromising the ability of future generations to meet their needs.” Sustainable development, in the view of many, is the overarching paradigm of international environmental policy.
- (J) **Intergenerational equity** is among the newest norms of international environmental law. It can best be understood not so much as a principle but rather as an argument in favor of sustainable economic development and natural resource use. If present

generations continue to consume and deplete resources at unsustainable rates, future generations will suffer the environmental (and economic) consequences. It is our children and grandchildren who will be left without forests (and their carbon retention capacities), without vital and productive agricultural land and without water suitable for drinking or sustaining life. Therefore, we must all undertake to pass on to future generations an environment as viable as the one we inherited from the previous generation.

Proponents of intergenerational equity maintain that the present generation has a moral obligation to manage the earth in a manner that will not jeopardize the aesthetic and economic welfare of the generations that follow. From this moral premise flow certain ecological commandments: Do not cut down trees faster than they grow back. Do not farm land at levels, or in a manner, that reduces the land’s regenerative capacity. Do not pollute water at levels that exceed its natural purification capacity.

- (K) At the 1982 United Nations Conference on the Law of the Sea, developing countries articulated the norm that certain resources, such as deep seabed, are part of the **common heritage of humanity** and must be shared by all nations.
- (L) Finally, and of special importance to developing countries, the principle of **common but differentiated responsibilities** was articulated in the Rio Declaration of 1992 (Principle 7). This means that all countries have a shared responsibility to protect the global environment, but the richer countries have a special responsibility to undertake and pay for preventive and remedial action.



III. North-South Conflicts over Environmental Protection and Resource Management

In international environmental law there is considerable discussion about North-South conflicts, or conflicts between wealthier, economically developed nations and poorer, economically developing countries. Many developed nations (North) have more stringent environmental standards and believe developing countries should raise their national standards to these more stringent levels. According to the North, the South should learn from the North's mistakes and avoid the environmental and economic consequences of unsustainable development. Many developing countries (South), however, contend that this requirement is unfair. The developing world often uses two main arguments to justify its opposition to this upward harmonization of environmental standards.

First, much of the developed world's wealth was derived from the cheap and unsustainable extraction of natural resources. Although the North may now favor greater environmental protection, the South is quick to point out the tremendous wealth derived from unregulated development. Developing countries argue that it is hypocritical for the North to deny less affluent countries the same development opportunities. Second, there is widespread suspicion among developing countries that environmental standards are being used by the North to keep the South at a competitive disadvantage. These suspicions have led some to label global environmental protection efforts as "eco-imperialism."

A final argument often raised by less developed countries (LDCs) is that if the developed nations wish to enforce stringent standards upon the LDCs, the developed nations have a corre-

sponding duty to transfer enabling technology and to offer financial assistance at concessionary rates. This argument often surfaces in debates surrounding technology transfers.

The Predicament of Developing Countries

Regardless of how one characterizes the North-South debate over environmental standards, there is little doubt that economic growth in the developing world is not currently sustainable. As a result of clearcut logging practices, the developing world's forests are rapidly disappearing. Because of high-yield, single crop agriculture, the farmlands of the developing world are being transformed into desert (much like the dustbowl created in the United States in the 1930s). Untreated industrial and municipal discharge has made the waters of the developing world undrinkable for humans and unlivable for aquatic life.

From both an economic and political perspective, it is not difficult to understand why these problems of unsustainability have been so acute in the developing world. The relationship between poverty and environmental degradation is becoming increasingly clear. Many developing nations are saddled with considerable foreign debt, and often short-term natural resource exploitation is the only way to service this debt. Nations that are struggling economically are willing to lower environmental and health standards to attract investment. This lowers the production costs of their resource-based exports. Not surprisingly, businesses often respond by relocating operations to these nations.

Most developing nations also lack the political stability and democratic traditions that allow



citizens to influence government policy. The government and corporations of the developed world have a powerful financial incentive to export hazardous or polluting industries to third world pollution havens. The resulting health and environmental problems then become the burden of the Third World host country.

The outcomes of this process are consistent and predictable: Developing nations obtain limited economic gain and suffer substantial environmental damage, while the investor (often the corporations and shareholders of the developed world) obtains substantial economic gain and suffers limited or no environmental damage. Examples of this phenomenon are readily found—the extraction of oil in Ecuador, the destruction of native forests in Southeast Asia, and the placement of unsafe chemical factories in India.

Developing Countries and the Control of Plant Genetic Resources

The control and exploitation of plant genetic resources have emerged as a new area of tension in North-South environmental relations. The northern countries, which are poor in biodiversity but technologically rich, have traditionally exploited the plant genetic resources and community knowledge of the unindustrialized southern countries to develop new drugs and to genetically engineer seeds and crops.

Over the years, laboratories and agricultural companies have developed special high-growth seeds. These are of great economic value to farmers because they result in increased yields. Because of these attributes, they have sometimes been referred to as “superseeds.”

In an effort to retain the economic benefits resulting from the use of these superseeds, many laboratories and agricultural companies have attempted to secure patent protection. With patent protection, anyone desiring to use or sell these high-yield seeds would need to purchase such rights from the party holding the patent. Patent protection for seed varieties privatizes formerly free-flowing plant genetic resources.

The issue of seeds has been divisive enough to give rise to seed wars. In one case, Indian farmers rioted to shut down a Cargill seed plant that exploited the traditional knowledge of the

farming communities and sold back to them their own genetically “improved” seeds at exorbitant prices. Compensation was never paid to the initial owners and traditional breeders of the seeds.

The privatization of biotechnology and genetic resources has raised a number of difficult issues. Some of these issues have focused on the effect of such privatization on biodiversity and global ecology. Excessive reliance on superseeds may have several adverse environmental consequences. It may result in a decline in crop diversity and an accompanying decline in soil vitality and regeneration. It may also make crops more susceptible to pest infestation. Moreover, strengthening international patent protections may enable First World companies to control and exploit the resources of the developing world.

The debate over biotechnology and genetic patents was the central reason for the United States’ initial refusal to sign the Biodiversity convention at the 1992 Earth Summit in Rio. Former President Bush believed that the convention did not provide adequate international patent and copyright safeguards for American biotechnology. Without these safeguards, such as international recognition of agricultural genetic patents, Bush maintained that American laboratories and agricultural companies would be unable to protect their investments. The decision of President Clinton to sign the Biodiversity Convention represents an important shift in the United States’ position on biotechnology. It indicates an increased willingness to balance national economic interest with the needs of developing countries and the global consensus to preserve biodiversity.

The change in the United States’ position was due in large part to pressure from the Union of Concerned Scientists (UCS). In 1993, UCS released a report in which it called on the United States to bring the regulatory approval process for genetically engineered crops to a temporary halt. This position was based partly on economic equity grounds and partly on a concern for the ecological risks of allowing such genetic patents.



IV. Conflicts between International Trade Law and International Environmental Protection Efforts

To help promote responsible environmental practices at home and abroad, many countries have enacted legislation that contains certain trade restrictions. For instance, certain types of dangerous chemicals cannot be produced, sold, or imported into the United States. The U.S. has also attempted to ban the import of tuna caught using driftnets (which cause a high incidental kill of dolphins, marine mammals, and migratory birds). Yet another example is the European Union's decision to ban the import of beef produced with growth-enhancing hormones.

Although the above import restrictions are concerned primarily with environmental and health protection, they prevent the free flow of goods across borders. Environmental restrictions often conflict with the terms of international free trade agreements, which seek to discourage or prohibit the use of import restrictions. Many free trade advocates have therefore sought to have these national environmental laws voided by international free trade panels. Not surprisingly, free trade advocates' attempts to invalidate or weaken national environmental laws have been resisted by environmentalists.

The tension between free trade agreements and international environmental protection efforts was particularly acute during the 1993–1994 U.S. debates over ratification of the North American Free Trade Agreement (NAFTA) and the Uruguay Round, a series of changes and amendments to the General Agreement on Tariffs and Trade (GATT). These debates focused national and international attention on the need to better reconcile the goals of economic development and environmental protection. The discussion below examines the issues surrounding three

international trade agreements/arrangements—NAFTA, GATT, and the European Union.

General Agreement on Tariffs and Trade/World Trade Organization

GATT was formed in 1947 in the economic aftermath of World War II. Its primary purpose was, and is, to encourage global economic development by limiting the use of tariffs and import restrictions. The term GATT refers to both an agreement and an ongoing organization. The agreement is the initial 1947 document. The ongoing organization is the administrative body that sits in Geneva, Switzerland. Under the terms of the 1994 Uruguay Round, the organization administering GATT is now known as the World Trade Organization. The purpose of the organization is to implement the terms and requirements of the agreement. One way that the organization achieves this end is through dispute resolution panels, where member states can reconcile conflicting interpretations of the agreements provisions.

GATT allows nations to restrict the import of products from other member nations, so long as these restrictions do not discriminate between foreign and domestic products. For instance, under GATT the United States may ban the importation of a dangerous pesticide so long as the use of the pesticide is also banned in the United States. Article XX lists the exceptions that justify a deviation from GATT's general free trade requirements. Among these exceptions are trade restrictions "necessary to protect human, animal, or plant life and health," and those "relating to the conservation of exhaustible natural resources." Most of the controversy regarding the agreements' impact on



environmental protections has centered on GATT dispute panel interpretation of the Article XX exceptions.

The most significant of these dispute panel decisions concerned trade restrictions under the U. S. Marine Mammal Protection Act (MMPA). Under the MMPA, the United States declared that it would ban the import of fish products from all countries that continued to use purse seine nets, which kill dolphins. In 1991, when Mexico became subject to the MMPA ban, it filed a claim with GATT asserting that the U.S. law violated international free trade rules. The GATT panel agreed with Mexico, reasoning that the MMPA restrictions were not necessary and that the Article XX exceptions applied only to products (tuna), not production methods (purse seine nets). Similarly, in 1998 a World Trade Organization dispute resolution panel sided with several Asian shrimp-producing nations that objected to a U.S. ban on shrimp harvested in a manner that endangered sea turtles—even though the United States was willing to supply those nations with harvesting equipment that protected the turtles. These rulings have provoked a barrage of criticism from environmentalists both in the United States and abroad.

Although there were efforts during the Uruguay Round to add new environmental provisions to GATT's rules and to change the dispute resolution procedures, these efforts did not succeed. The only small improvement environmentalists were able to achieve was the creation of a GATT Committee on Trade and the Environment. This committee provides a forum to discuss current GATT policies and propose reforms, although it has no rule-making powers. The environmental shortcomings of GATT's 1994 Uruguay Round stand in stark contrast to the progressive environmental policies incorporated into the 1993 NAFTA regime (discussed in the next section).

North American Free Trade Agreement

Recognizing the tendency for free trade arrangements to encourage unsustainable resource use, environmentalists worked hard to ensure that NAFTA would promote responsible international trade. Although there is widespread disagreement

among environmentalists over whether this goal was achieved, NAFTA clearly represents a significant environmental improvement over GATT.

The most significant of NAFTA's improvements was the creation of the North American Commission on Environmental Cooperation (NACEC). The NACEC, which was created under NAFTA's environmental side agreement, the North American Agreement on Environmental Cooperation, ensures compliance with several new environmental provisions. These include an obligation to effectively enforce existing environmental laws and a commitment not to lure investment by relaxing environmental or health standards.

In 1996, three Mexican environmental groups filed a complaint with NACEC charging that Mexican authorities failed to enforce their environmental laws when they approved a cruise-ship pier in the Yucatan. NACEC investigated the complaint and summarized all the facts that it found but provided no remedies. It left the matter to the political process within Mexico.

NAFTA provides that in the event that NAFTA and GATT both apply to a given dispute, NAFTA's rules will govern. This means that if a tuna/dolphin-type issue reemerges between the United States and Canada or Mexico, NAFTA will not be bound by GATT's provisions or prior dispute-panel rulings.

European Union

The European Union (EU) is an institution devoted to free trade among its member states. It is also a comprehensive multinational organization that addresses a broad spectrum of issues, including environmental protection and sustainable natural resource use. These issues are addressed generally through directives. Each of the EU's 15 member states is bound by the directive, but they may achieve the goals of the directive through their own implementing national legislation.

The EU's authority to issue directives in the environmental field is based on provisions in the 1957 Treaty of Rome, the 1987 Single European Act, and the 1992 Maastricht Treaty. Environmental directives have been adopted in such



areas as air pollution, transport and disposal of hazardous waste, transnational water pollution, and environmental product labeling.

In 1990, the EU created the European Environmental Agency (EEA), headquartered in Copenhagen, Denmark. At present, the EEA's main tasks are information gathering and monitoring. Some of the EU's more environmentally progressive members, such as Denmark, the Netherlands, and Germany, however, would like to grant the EEA greater policy-making and enforcement powers.



V. Relation between Environmental Protection and Human Rights

Although environmental protection and human rights are often treated as separate legal topics, there are many situations where the two fields intersect, for example, with respect to the rights of indigenous people. First, many governments and international bodies have recognized the right of citizens to live in a clean and healthful environment. Second, environmental and natural resources policies may disproportionately affect poor and minority communities. For instance, in the United States the placing of local government landfills in primarily Latino and African-American neighborhoods may constitute a violation of the Equal Protection Clause (under the 14th Amendment to the U.S. Constitution).

Indigenous People

The rights of indigenous people are a cross-over issue in that they may be protected under the auspices of both international human rights and international environmental law. (Any environmental right can be theoretically couched in terms of a human right, so this is not the only area where the two bodies of law dovetail.)

The rights of indigenous people may be seen in two basic lights: (1) the right to protect and manage natural resources located on traditional indigenous lands; (2) the right of citizens to live in a healthful environment. Many environmentally destructive development practices severely impact the traditional lands and cultures of indigenous communities. Therefore, their rights often provide another tool in the fight against such practices.

With respect to the protection of indigenous people as a means of conserving biodiversity, international environmental law can play an important role. Many native and indigenous

people have opposed government policies that permit resource exploitation on traditional lands. Because this exploitation threatens to undermine the economic and spiritual fabric of their cultures, and often results in forced migration and resettlement, the struggle to protect the environment is often a part of the struggle to protect the cultures of indigenous people.

The Rio Declaration on Environment and Development

One of the main products of the Earth Summit in 1992 was the Rio Declaration on Environment and Development. Principle 22 of this declaration stated that "Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture, and interests and enable their effective participation in the achievement of sustainable development."

The same principle is echoed in the 1992 Biodiversity Convention in Article 8(j). However, as discussed in Chapter VIII, both the Rio Declaration and the convention lack substantive obligations and enforcement mechanisms. Truly binding rights and responsibilities can only be built through further agreements.

The combination of human rights and environmental obligations can provide a powerful tool to protect the land and ecosystems within which indigenous people reside. This protection is evidenced by the reservation of lands for indigenous peoples, such as the Yanomamo in Brazil, that incidentally also contain some of the world's precious rainforests. As the conservation



expertise of indigenous peoples becomes more widely acknowledged, indigenous rights will likely play an increased role in national and international environmental protection efforts.

Constitutional rights and protections

Various countries have recognized the constitutional right to a clean and healthful environment. Constitutional provisions ensuring environmental quality have been adopted in over a dozen countries, including India, Spain, the Netherlands, Chile, and Brazil. They have also been adopted by several state governments in the United States, such as Hawaii, Massachusetts, Pennsylvania, and Wisconsin.

International experience with constitutional environmental rights has revealed that such protections offer several advantages over statutory environmental law. First, constitutional implementation gives environmental protection the highest rank among legal norms, placing it above every statute, administrative rule, or court decision. Second, in securing constitutional status, environmental protections emerge as something more than a mere law. Like free speech or the right to equal protection in the United States, they serve as a standard for all citizens to emulate.

Environmental Poverty Law

There is a growing awareness of the close relationship between poverty and environmental pollution. It is broadly recognized that poorer citizens are more likely to suffer the consequences of environmental pollution than other citizens. This situation is true on both the international and national levels. It has also given rise to environmental poverty law, or environmental justice, which seeks legal remedies for the disproportionate environmental abuse suffered by poorer citizens.

Internationally, poorer nations tend to have more severe environmental problems than wealthier nations. Examples of these problems are easy to identify. Air pollution in Mexico and China is generally more severe than in France or Australia. Hazardous waste is treated less safely in Eastern Europe and Africa than in Canada and the Netherlands. The reasons for this situation

are frustrating but not difficult to understand. Less affluent nations lack the financial resources to purchase modern pollution-control or energy efficient technologies, or to implement environmental protection policies, whereas more affluent nations possess the financial resources to purchase modern industrial equipment and to implement comprehensive environmental protection policies.

At the 1992 Earth Summit in Rio, developing countries asked for increased technology transfers. They pointed out that if the developed world is truly concerned with stemming the environmental deterioration in developing countries, new technologies for environmental protection need to be made available at little or no cost to the developing world.

The European Union recently adopted a directive that prohibits the export of hazardous wastes outside the union. This directive was intended to stop the shipment of hazardous wastes to the developing world, particularly Africa. These efforts are helping to develop awareness of the relation between environmental degradation and poverty.

On the national level, there have also been important developments. In India, for example, judicial decisions have held that the urban poor must be treated fairly and that government policies must respect their human rights. The United States has also begun to address environmental poverty issues. In 1994, President Clinton issued an executive order calling on federal agencies to make certain that environmentally undesirable activities do not disproportionately burden low-income or minority communities.

Environmental Racism

Aspects of environmental racism can be found at the international level. Many transnational corporations headquartered in the developed world have chosen to move environmentally dangerous industrial activities to the developing world. Most developing countries are located in Asia, Africa, and Latin America, and are ethnically distinct from most of the developed world.

Why do transnational corporations relocate to these poorer nations? First, labor costs are much



cheaper. Second, taxes are substantially lower. Finally, environmental standards in the developing world are generally lower (and therefore less expensive) than in the developed world. This means, of course, that workers are often exposed to hazardous materials or unsafe conditions.

The export of environmental harm to the world's poorer nations, and to non-European populations, has resulted in severe health and environmental problems. Two widely publicized examples were the lethal 1984 Union Carbide gas leak in Bhopal, India, and the continuing logging of tropical rainforests by First World timber companies.

Closer to home, many U.S. companies have set up factories in the Maquiladora zone of northern Mexico near the U.S. border. Here, they take advantage of Mexico's lax environmental standards, as well as its cheap labor and favorable tax conditions. This has resulted in the rapid environmental deterioration of the border region, including reports of increased disease and death from toxic industrial waste.



VI. Air Pollution and Protection of the Atmosphere

In one of the earliest legal cases involving transboundary air pollution, fumes from a smelter at Trail, British Columbia, caused damage to orchards and crops across the border in the state of Washington during the 1920s and 1930s. The United States and Canada agreed to create an international tribunal to arbitrate this dispute. In a widely quoted passage, the Trail smelter tribunal declared that

No state has a right to use. . . its territory in such a manner as to cause injury. . . to the territory of another or the persons or property therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.

The tribunal required Canada to pay damages to the injured U.S. parties and to establish a regime to monitor and abate pollution from the smelter.

Today the most common case of transboundary air pollution is acid rain. Acid rain results when airborne sulfur and nitrogen oxides, emitted primarily by power plants, industrial processes, and automobiles, combine with moisture in the air to form sulfuric and nitric acids. These then precipitate out of the atmosphere in rain and snow (or sleet, hail, mist, fog, dew, or frost). A similar result occurs when dry sulfate particulates combine with moisture on the ground or on stone surfaces.

The accumulation of these human-made acids in lakes and streams causes drastic reduction of fish stocks and destroys other forms of aquatic life. Once an aquatic ecosystem degenerates, regeneration is very difficult. Moreover, there is evidence that sulfur oxides and acid rain may damage crops, retard forest growth, destroy the surfaces of stone buildings and monuments, corrode materials, reduce visibility, and contaminate drinking water (by leaching toxic metals from water conduits).

In all affected regions, acidifying pollutants originate partly in transboundary sources. The United States and Canada exchange airborne pollutants across their common border, and much of the sulfur in the air over Scandinavia comes from the upwind countries of northern Europe. To deal with the environmental threat caused by these airborne pollutants, in 1979, 34 industrialized nations of Europe and North America negotiated and signed the Geneva Convention on Long-Range Transboundary Air Pollution. This convention was followed by the implementing protocols—1985, 1988, and 1994—discussed below.

During the 1980s, international environmental efforts shifted from transboundary or regional air pollution concerns to threats to the global atmosphere. This shift was prompted by scientific evidence that emerged in the mid 1970s. This evidence linked the release of chlorofluorocarbons (CFCs) and other chlorine-based substances with the destruction of the stratospheric ozone layer. The ozone layer shields people, animals, and plants from the harmful effects of solar radiation. CFCs are used in refrigeration, air conditioning, and foam furniture among other applications, but they are replaceable by ozone-friendly chemicals. To curtail and reduce the use of these substances and protect the global atmosphere, the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer were adopted. Because the 1987 protocol effectively implemented and incorporated the 1985 convention's basic aims, the international regime to protect the ozone layer is usually referred to as the Montreal Protocol.

Another issue involving the world's atmosphere is global warming. It encompasses many underlying environmental concerns, including air



pollution, energy consumption, deforestation, and management of the global commons. For purposes of this module, the issue will be discussed in the chapter on air pollution and protection of the atmosphere. The primary international agreements relating to global warming are the United Nations Framework Convention on Climate Change, signed at the Rio de Janeiro Earth Summit in 1992, and the Kyoto Protocol of 1997. Each of these issues—transboundary air pollution, protection of the ozone layer, and global warming—will be discussed below.

1979 Convention on Long-Range Transboundary Air Pollution (Acid Rain Convention)

In 1979, the United Nations Economic Commission for Europe (ECE) helped forge the international consensus for the Convention on Long-Range Transboundary Air Pollution. This accord was signed by 34 industrialized nations of Europe and North America and was the first multilateral agreement to specifically address the transboundary air pollution problem.

The convention established important avenues of international cooperation in monitoring and research activities and put in place a valuable structure to assemble information on national emissions as well as pollution and energy policies. The accord also imposed notification and consultation requirements, applying to national policy changes likely to have a significant impact on levels of transboundary sulfur pollution.

The ECE Convention also strengthened the key European pollution data-gathering network, the Cooperative Programme for Monitoring and Evaluation of Long-Range Transmission of Air Pollutants in Europe (EMEP). The EMEP program is designed to provide scientists and governments with information on the transport and deposition of transboundary air pollutants. It is implemented in cooperation with the Geneva-based World Meteorological Organization, which has the nearly impossible task of attempting to assure comparability among the national monitoring efforts. EMEP collects emissions data and monitors sulfur oxide levels in most European countries. The EMEP sulfur deposition estimates

are now generally regarded as the most accurate available.

However, the convention did little to move beyond the declaration of the 1972 Stockholm Conference in defining national responsibilities to control transboundary pollution or to compensate for the damage it causes. It provided merely for the sharing of information, collaborative research, and continued monitoring of pollutants and rainfall. It contained no numerical goals, limits, timetables, abatement measures, or enforcement provisions. Parties to the convention merely agreed to *endeavor* to limit, and *as far as possible, gradually* reduce and prevent air pollution, including long-range transboundary pollution. They also agreed to adopt “the best available technology *economically feasible*,” (emphasis added). With all this wiggle room, no country had to alter its status quo unless it chose to.

In 1982, however, Germany—which had signed the Acid Rain Convention very reluctantly three years earlier—learned that its forests were being severely damaged by airborne pollutants from Central and Eastern European countries (Germany’s domestic vehicle emissions also contributed to this forest decline). Germany joined Canada, a victim of airborne pollutants from the United States, in calling for a protocol to implement the broad goals of the 1979 convention. In 1985, 21 industrial countries (excluding the United States, the United Kingdom, and Poland) adopted the so-called SO₂ Protocol, pledging to reduce their 1992 SO₂ emissions by 30% over the levels prevailing in 1980.

Three years later, in 1988, the United States joined the other countries of Europe and North America in pledging not to increase nitrogen oxides (NO_x) emissions, even in the face of a sharp increase in the number of motor vehicles—the primary source of NO_x. In December 1993, the EMEP released a report summarizing the data on sulfur and nitrogen oxides emissions in Europe from 1980 to 1992. The data reveal that while the ECE Convention has been effective in reducing sulfur emissions, it has not resulted in reductions of nitrogen oxides. The report indicated that during that period emissions of sulfur were reduced by 37%. Those of nitrogen oxides,



however, were found to have remained almost exactly the same, amounting to about 22 million tons both in 1980 and 1992.

The ECE Working Group on Abatement Strategies, a unit of the Acid Rain Convention's executive body, reported in 1991 that reduction of emissions should in the future be negotiated on the basis of the effects of those emissions rather than an equal percentage rollback for every country. This is called the critical loads approach. Its goal is to cost-effectively reduce the emission of air pollutants to levels below critical loads or ceilings, based on the environment's ability to withstand pollution.

In 1994, the critical loads approach was incorporated into the latest protocol to the Acid Rain Conventions, superseding the SO₂ Protocol of 1985. Under the new protocol, different SO₂ reduction targets are set for each country. The targets are the maximum permissible emissions of SO₂ per target year.

Perhaps the most important result of the ECE Convention and Protocols is the impact they had on other international organizations. The consensus on the severity of the problem and the commitment to pursue pollution abatement played an important role in facilitating a European Union-wide standard for SO₂. By making national governments more conscious of transboundary pollution concerns, the convention enhanced the prospects for future cooperative abatement efforts.

1987 Montreal Protocol on Substances that Deplete the Ozone Layer

Like the 1979 ECE Acid Rain Convention, the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer was able to move beyond symbolic pledges to substantive standards. The protocol sets firm targets for reducing consumption and production of a range of ozone-depleting substances. The standards set forth in the 1987 protocol were made even more stringent and expanded to cover additional ozone-depleting substances through amendments adopted in 1990 and 1992. These amendments were prompted by the development of new technology and alternative substances. The protocol's ability to respond to and

incorporate scientific/technological developments has been widely praised and has provided a model of constructive flexibility for future international environmental agreements.

One of the major innovations of the Montreal Protocol is its recognition that all nations should not be treated equally. The agreement acknowledges that certain countries have contributed greatly to ozone depletion while other countries have made very small contributions. The agreement also recognizes that a nation's obligation to reduce current emissions needs to reflect its technological and financial ability to abate CFC pollution. Because of this situation, the agreement applies more stringent standards and a more accelerated phase-out timetable to the countries that have contributed the most to ozone depletion.

The Montreal Protocol also includes innovative funding provisions in which less affluent member countries are given financial and technical incentives (such as the transfer of technology and patents) to encourage such states to switch as quickly as possible to non-ozone-depleting substances and production methods. Specifically, Article 10 of the protocol established a fund to facilitate technical cooperation and technology transfer to assist developing states.

This fund, now administered by the Global Environment Facility, depends on the support of the developed countries. While this system seems fair, it also creates a rather large loophole in the protocol through which many less developed countries will be able to avoid meeting the standards set out in the protocol.

Finally, the protocol also contains provisions to deal with the problem of nonparties (the few nations that have not signed the protocol and continue to produce and consume ozone-depleting products) by banning trade in ozone-depleting substances with these states. Thus, parties to the protocol are prohibited from importing such substances or exporting CFC production technology and equipment. This comprehensive trade ban places both economic and diplomatic pressure on all nations to join the protocol.



U.N. Framework Convention on Climate Change and Kyoto Protocol

The Climate Change Convention was prompted by several scientific studies in the late 1980s that indicated that increased levels of carbon dioxide (CO₂) in the atmosphere were likely to cause global temperatures to rise. This potential increase would be an intensification of the natural greenhouse effect, by which the sun's heat is trapped above the earth's surface by CO₂ and other gases. The Climate Change Convention was adopted to reduce the amount of CO₂ emitted into the atmosphere and to preserve and increase the earth's carbon-absorption capacities.

In addressing the global warming issue, the international community chose to follow the process successfully employed in the ozone/CFC context. Just as the highly specific 1987 Montreal Protocol was preceded by the more general, aspirational 1985 Vienna Convention, so too the 1992 Framework Convention represented the first step in the international community's attempt to stop global warming. Its purpose was to demonstrate and forge consensus, and to provide the diplomatic foundation for a more substantive agreement.

Article 2 of the convention states that the ultimate objective of the framework agreement is to "stabilize the concentrations of greenhouse gases at a level which would prevent dangerous interference with the climate system." This broad and general phrasing of this objective provided participating countries with flexibility in terms of implementing strategies.

The Climate Change Convention was only a broad blueprint, but some significant principles and provisions were negotiated. Most of these provisions reflect North-South tensions. First, it was agreed that financial commitments should be based on the principles of respective capabilities and appropriate burden sharing and equity, meaning that wealthier nations should be required to contribute more than poorer nations. Second, the convention states that developed countries "shall take all practical steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies." In addition, the Framework

Convention also specifies that a newly created Global Environmental Facility will act as the financial mechanism for allocating environmental resources to developing countries.

Although the Climate Change Convention is modeled on the Montreal Protocol, it will not be easy to move from the aspirational framework stage to the binding implementation stage. This is because the global warming issue lacks many of the elements that formed the foundation for the Montreal Protocol. Most importantly, there is a lack of scientific consensus, a lack of available alternatives to thermal power and liquid fuels for transportation, and the lack of involvement of all nations, North and South, in both the problem and its solution.

In December 1997, the Third Conference of Parties to the Framework Convention on Climate Change met in Kyoto, Japan. After much contentious dispute and negotiation, the parties agreed and signed the Kyoto Protocol. The major industrialized countries agreed to reduce their greenhouse gas emissions by an average of 5% relative to their 1990 levels, in the period 2008 to 2012. Japan agreed to reduction of 6%, the United States agreed to 7%, and the European Union agreed to 8%. (The actual reduction in the United States is expected to be about 30% relative to the increase in emissions that could be expected in the absence of government intervention—sometimes called the "business as usual" scenario. This commitment is still theoretical, since the United States has not ratified the protocol.)

Developing nations rejected taking on any new commitments and only agreed at the last minute to allow emissions trading among developed countries. The United States successfully argued that each nation should be free to achieve the convention's objectives in its own way.

China and India seem prepared to resist emissions trading schemes (sometimes called marketable emissions permits) because they want industrialized countries to bear the major costs of greenhouse gas reductions—even though such reductions may be achieved in energy-inefficient developing countries at much lower cost. But Article 12 of the Kyoto Protocol introduces a clean development mechanism whereby



developed countries can implement carbon-reducing projects in developing countries. This provision is largely undefined.

A major unresolved issue is how to treat forestry and land-use issues. Leaving forests uncut and planting trees seem to be low-cost ways to absorb carbon, although scientists disagree over the role of forests in the carbon cycle.

Although many large automobile and energy companies have publicly resisted the Kyoto Protocol, others seem to be getting the message that greenhouse gas reductions are inevitable. BP and Shell have announced large investments in renewable energy technologies, and Ford Motor Company and Mercedes-Benz will begin producing a super-efficient fuel-cell car as early as 2004.



VII. Control of Hazardous Wastes on Land and Sea

Industrialized countries export vast amounts of hazardous wastes to less developed nations where the import, treatment, and disposal of such wastes remain largely unregulated. Third World countries are often caught between a rock and a hard place regarding the transportation of hazardous waste into their countries: on the one hand, import provides major revenue; on the other hand, it creates untold numbers of health and environmental risks.

Horror stories about the trade abound and have contributed to its notoriety. In 1988 3,000 tons of Italian toxic wastes, labeled as construction material, were delivered to a port in Nigeria, where authorities came frighteningly close to executing the people responsible. In the same year, the "ghost ship" *Pro Americana*, laden with 2,000 tons of toxic wastes, was refused at ports in Brazil, Denmark, and Belgium. Numerous officials in many countries have been arrested or implicated in illegal import/export schemes, and a thriving and entirely unregulated black market continues to exist worldwide.

The combination of the exploitive nature of the trade between industrialized and less developed countries and the toxic nature of the environmental threat has made this issue a favorite with nongovernment organizations and the public. The nature of the trade, involving privately owned companies that conduct their business on the open seas, in addition to the temptations that corrupt many government authorities, have made the issue a particularly sensitive one among national governments. Thus, the regulation of the international transport of hazardous wastes has become one of the most difficult but critical issues in the field of international environmental law.

Regulation of the transportation of hazardous wastes began on a national level and has only

recently become an issue of international negotiations and agreements. Yet, due in part to the North-South (exporter-importer) divisions over the issue, efforts at international regulation have remained fragmented. Within the United States, hazardous waste exports are controlled by the 1984 Hazardous Waste and Solid Waste Amendments to the 1980 Resource Conservation and Recovery Act. In the European Union, the 1984 Directive on the Transfrontier Movement of Toxic Waste, as amended in 1986, is the primary domestic regulation mechanism.

The most ambitious international agreement in this area is the 1989 Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal. However, because of the many weaknesses in the Basel Convention, including the claim that it legitimizes a trade the international community should properly prohibit, many Third World countries have renounced it. As an alternative, the Organization of African Unity has created its own agreement, the 1991 Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa. The European Economic Community banned all hazardous waste exports to developing countries and toxic and radioactive exports to 68 developing countries in accordance with the 1989 African, Caribbean, and Pacific States-European Economic Community Convention (LOME IV), as amended in 1990.

The international effort with respect to the movement and dumping of hazardous wastes at sea has consisted of, most importantly, the 1972 Ocean Dumping Convention and the 1973 International Convention for the Prevention of Pollution from Ships. One last piece in the patchwork of international efforts is the attempt by the international community to control transnational



corporations (TNCs), who are often the main players in the import/export business and yet who remain unregulated under international treaties, by which only nations become bound. This problem was addressed by the U.N. Economic and Social Council in its 1988 Draft Code of Conduct on Transnational Corporations. Although still a long way from adoption, that code represents a small step forward in regulating the parties who have the most to gain from the unregulated black market in hazardous wastes.

1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal

In May 1992, a month before the Earth Summit in Rio de Janeiro, the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal came into force after receiving the requisite number of ratifications. The Basel Convention's ratification came three years after it was signed under United Nations Environmental Programme (UNEP) sponsorship in 1989.

Under the terms of the convention, member countries seeking to export hazardous wastes must now comply with the agreement's provisions regarding notification of such exports both to the importing country and to any countries through which the waste travels. In addition, before any waste may be transported, official consent to the shipment must be obtained in writing from all the countries involved. If the provisions of the convention are not complied with at any time during the waste shipment or disposal, the exporting country must reimport the waste and be responsible for its proper disposal.

While the Basel Convention's stated objectives are the reduction of hazardous wastes and self-sufficiency in waste disposal (each nation treats and disposes of its own hazardous wastes), countries must do so in an "environmentally sound and efficient manner." According to the convention, any country lacking the technical capacity or proper facilities to dispose of its waste domestically in an environmentally sound and efficient manner is permitted to export the waste abroad, also in an environmentally sound and efficient manner.

Although the term "environmentally sound and efficient manner" is pivotal to the Basel Convention's construction and implementation, it remains vague and poorly defined. At a post-ratification conference held in Uruguay in late 1992, participating nations were unable to reach consensus on what specific treatment standards and techniques satisfy this standard. Additionally, there are problems with enforcing the convention and making violators liable.

Because of the undefined terms and the absence of enforcement and liability provisions, the Basel Convention has achieved little success. In fact, many developing nations and environmental organizations believe that the agreement has actually encouraged the export of hazardous wastes. These nations and organizations maintain that by establishing procedures that facilitate the transboundary movement of waste, UNEP is seen to be sanctioning such activities. Rather than create incentives to reduce the initial generation of waste, it could be argued that the Basel Convention legitimizes its continued production, transport, and disposal.

It is in the area of the transportation of hazardous wastes that the jurisdictional issues become most frustrating. Nations are not directly responsible for the sale, purchase, and movement of waste. Rather, large TNCs make huge profits by collecting waste and paying underdeveloped nations to dispose of it within their boundaries. As discussed in an earlier section, it is nearly impossible to impose liability or responsibility on TNCs. This has become such an overwhelming and life-threatening issue for many African nations that they countered both the ineffectiveness of the Basel Convention and the immunity of the TNCs with the 1991 Bamako Convention, a complete ban on the import of hazardous waste into convention countries. However, as yet, the convention has not been implemented, and several African nations continue to collude with European TNCs to import illegal wastes.

In an effort to address these conditions, in 1998 the parties to the Basel Convention signed, but have not yet ratified, a total ban on hazardous-waste trade between developed and developing countries.



1972 Ocean Dumping Convention

As a result of a recommendation made at the U.N. Conference on the Human Environment in Stockholm, an ocean dumping conference was held in London in October and November of 1972. The product of this conference was the Ocean Dumping Convention.

This convention remains the most comprehensive international agreement concerning marine pollution. First, it establishes a list of contraband materials as well as procedures for adding new materials to this list. In addition to the listing of materials that may not be dumped in the ocean under any circumstances, the convention also set forth other obligations. States must (1) undertake environmental impact assessment prior to dumping, (2) promote effective controls of all resources or marine pollution, (3) keep records regarding the quality and quantity of dumping by vessels or aircraft, (4) designate a permit-authorizing body or agency, and (5) negotiate dispute settlement procedures for resolving damages caused by ocean dumping.

Although perceived as an important first step toward controlling pollution from ocean dumping, the convention has been criticized for its lack of enforcement procedures. No specific international environmental agency was designated or created to monitor and ensure compliance. Contracting states retain sole authority to prevent and punish conduct that contravenes the provisions of the convention. Many countries have chosen to ignore illegal dumping activity or to permit such dumping in territorial and coastal waters.

While the Ocean Dumping Convention enhanced global awareness of the environmental problems resulting from marine pollution, it did not provide the institutions to ensure that conditions improved.

MARPOL Convention

An additional instrument in the regulation of marine pollution is the 1973 International Convention for the Prevention of Pollution from Ships (MARPOL), in conjunction with an additional 1978 protocol. While the 1973 MARPOL Convention had as its ambitious aim the regulation of various pollutants, including oil (Annex I), "nox-

ious liquid substances in bulk" (Annex II), and garbage from ships (Annex V), the 1978 protocol specifically defers the application of Annex II "until certain technical problems have been satisfactorily resolved." As garbage from ships applies only to the garbage generated by that ship, and not to the transportation of garbage, MARPOL only regulates marine oil pollution caused by ships, particularly oil tankers.

MARPOL regulates in two primary ways: first it sets out detailed requirements for the construction of ships that transport oil, and second, it establishes a permitting and inspection and a reporting scheme between coastal states, port states, and flag states. The regulations require double-hulling based on established categories according to weight and age. While double-hulling is recognized as an effective way of reducing oil spills in the event of low-velocity accidents, it is still somewhat controversial because it may increase the risks of fires and explosions. In addition, the large gaps in MARPOL assure that any ships below a certain capacity, less than 25 years old, or newly constructed before the implementation dates, are not regulated. A final problem raised by this type of regulation is the suspicion of many that it will force oil companies to use more, smaller vessels to avoid regulations and therefore increase the odds of accidents by virtue of the sheer number of ships involved in oil transport.

MARPOL also established a permitting, inspection, and reporting scheme. Flag states must issue initial certifications of international oil pollution prevention compliance. Port states inspect ships upon entry and bar substantial non-compliers from exiting without repairs. Coastal states report discharges. The primary enforcement comes from flag-state prosecution of violators, with evidence collected from inspecting port states and reporting coastal states. However, not surprisingly, the exchange of information has proved difficult. The surveillance of discharges on the high seas is nearly impossible, and flag states are often unwilling to prosecute, especially in the less developed nations.



VIII. Protecting Endangered Species on Land and Sea

There are many reasons for human beings to conserve other species. The first is the ethical belief that all creatures on earth have a right to life. Next is the esthetic argument that the world is a more beautiful place when it is inhabited by a diverse array of creatures. Then there is the utilitarian view that species conservation enables humans to reap a sustainable harvest of other species, including the potential undiscovered wealth contained in the genetic resources of many plants. Finally, there is the ecologist's belief that the human species is interconnected to all others and our survival depends on maintaining an ecological balance in the entire earth's ecosystem—a balance that includes a full array of plant and animal species.

These theories of species preservation are hotly debated, primarily because species extinction is occurring in our lifetimes at an unprecedented rate. In addition, because of humankind's huge and increasing population, in combination with our unprecedented abilities to affect our environment, almost all species extinction is directly attributable to, and potentially remediable by, humans rather than nature. Trade in animal parts, destruction of habitat, and changes in climates, water supplies, and pollution levels have all combined to make us responsible for large losses of species. Thus, no matter what theory of conservation one endorses, most would agree that if species diversity is to be maintained, it is our responsibility to do so.

1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora

As of 1995, over 113 nations had signed the 1973 Convention on International Trade in Endangered Species (CITES). CITES does not seek to directly protect endangered species or the devel-

opment practices that destroy their habitats. Rather, it seeks to reduce the economic incentive to kill endangered species and destroy their habitat by closing off the international market. CITES' sole aim is to control or prevent international commercial trade in endangered species or products derived from such species.

CITES regulates by means of an international permit system. For plant and animal species threatened with extinction, international import or export is strictly forbidden. For plant and animal species suffering decline but not yet facing extinction, international permits must be secured before importation or exportation can occur. These CITES permits enable the trade to be controlled and monitored so that trade does not lead to species extinction or decline.

Perhaps the most contested international issue relating to CITES has been the poaching of African elephants and the international trade in ivory. As a result of the tremendous value of ivory (from elephant tusks), the African elephant population had dwindled to very low levels. From 1979 to 1989, the total number of elephants in Central Africa dropped from 1,160,500 to 302,600. Zoologists predicted that, at this rate, the species could cease to be viable by the year 2000.

Wildlife protection advocates had the African elephant placed on the CITES list. This listing enjoined members of the convention from importing or exporting ivory from elephant tusks. Although the African elephant population has increased somewhat since the species was listed under the convention, ivory trading has continued on the black market and among nations that have not yet signed CITES. In 1997, southern African nations succeeded in delisting the elephant within in southern Africa.

The persistence of the illegal ivory trade has raised the question of whether the market might



be a better conservation tool than agreements like CITES. Some have argued that, because there is an international demand for ivory, African nations have an interest in preserving and managing the species. This market theory of wildlife protection, sometimes called “conservation through utilization,” has been adopted by several southern African nations, such as Zimbabwe, Botswana, Malawi, Namibia, and South Africa. In these nations, elephants are protected by allowing villagers to manage elephant populations and extract a sustainable harvest from their herds, giving them income from sale of ivory and hunting rights. This approach seeks to guarantee the elephants’ continued survival by providing local people with a vested interest in their preservation.

The conservation-through-utilization approach, however, is problematic for two reasons. First, the unregulated market has not proven an effective conservation tool in the past. For example, although there is an international market for wood-based products, nations have continued to log at destructive, unsustainable rates. The same can be said of bears, whose gall bladders are sold for medicinal purposes. Second, even if the market were effective, it would only protect species whose body parts (tusks, pelts, gall bladders) have significant market value. Animals that lacked consumer appeal would still be left at risk.

Because of these shortcomings, many countries (and CITES) have rejected the conservation-through-utilization approach. A group of Central African nations—Kenya, Tanzania, Uganda, and Zaire—have concluded that the only way to save the elephant is through a complete ban on elephant products and an end to the international trade in ivory. To deter poaching, and to protect the tourism-safari industry, harsh penalties are enforced (in Kenya, local antipoaching patrols are ordered to shoot to kill).

The different economic conditions in the southern African nations and the central African nations may account for their different conservation approaches. Southern nations are less subject to the social pressures of famine and poverty than their northern neighbors. In Central Africa, if killing elephants is made legal, they are likely to go extinct from overuse for food, ivory, and hides.

Many environmentalists believe that CITES does not go far enough in protecting endangered species and that it approaches protection from a philosophically questionable standpoint. The main animals that CITES protects are charismatic species—so called megafauna, or animals whose parts and pelts have a market value. This prioritizing of species is objectionable to many. The only thing that CITES controls is trade; it does nothing to limit hunting or killing. Theoretically, therefore, if a nation wanted to kill all its species for domestic consumption, CITES could do nothing to prevent it. Many people believe that CITES’ dependence on trade regulations to protect endangered species is inimical to a more ecologically sensitive perspective.

1992 Biodiversity Convention

At the 1992 U.N. Conference on Environment and Development meeting in Rio de Janeiro, an agreement was reached on the conservation and sustainable use of the world’s biodiversity. The Convention on Biological Diversity took effect on December 29, 1993, after it was ratified by the required minimum of 30 countries.

Although the Biodiversity Convention sets forth numerous obligations, most of these are aspirational. There are no specific standards or methods to ensure compliance. Article 8(c) requires that signatory nations “regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use.” Article 8(d) obliges countries to “promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings.” Under Article 9(b), nations agree to “adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity.”

The environmentally progressive provisions listed above, however, are balanced against provisions that reaffirm each nation’s sovereign right to manage and exploit their natural resources and to adopt protection standards that are appropriate to their own economic needs and priorities. Taken as a whole, the Biodiversity Convention is broad and vague enough to be consistent with almost all



natural resource policies, whether these policies are environmentally protective or destructive. The loose and contradictory language of the agreement has been criticized by many environmentalists, who maintain that an important opportunity was missed to create more sustainable international nature-protection standards.

The convention has also been criticized for its lack of enforcement mechanisms. It created an institution, the Committee on Sustainable Development (CSD), to monitor compliance and implement the agreement. The CSD, however, has so far been unable to establish more precise definitions of the vague and contradictory language in the agreement. Without this basic clarification, it is difficult to implement or monitor compliance with the convention.

International Convention for the Regulation of Whaling

Like CITES, the International Convention for the Regulation of Whaling (ICRW) employs a listing and permit system to protect species and marine resources. Under the ICRW, fishing standards and schedules are established for specific species of whales and other cetaceans. These standards and schedules are determined by assessing the relation of existing stocks to maximum sustainable yield. If stocks are severely depleted, the International Whaling Commission (IWC)—the administrative apparatus for the ICRW—can set quotas at zero, whereby all takings of an overexploited species can be totally prohibited by issuing no permits.

Although there is widespread agreement that ICRW has helped reduce overexploitation of marine resources, the agreement has also been criticized for its “opt out” provision. Unlike CITES, the ICRW includes a procedure that allows states to formally object to quotas and prohibitions established by the IWC. The grounds for such objections include scientific research and subsistence fishing by native communities. If these objections are filed within the specified time, the objecting party is not bound by the IWC quota or prohibition.

The ICRW objection was the subject of a high-profile lawsuit before the U.S. Supreme

Court in 1986. In *American Cetacean Society v. Japan Whaling Association* (478 U.S. 221), environmental plaintiffs accused Japan of improperly invoking scientific research to justify whaling practices that violated ICRW standards. The U.S. Supreme Court rejected Japan’s reliance on this objection, and found Japan in violation of the ICRW. Unfortunately for the environmental plaintiffs, however, the court also found that the U.S. Secretary of Commerce, although legally permitted, was not legally required to impose trade sanctions on nations that violated the ICRW. The court therefore denied the plaintiffs’ request for relief and refused to order the Secretary of Commerce to ban the importation of Japanese fish products.

The whaling experience indicates that in CITES and perhaps in other, similar situations, imposing a ban on activity regarded as undesirable by a majority of nations may be the only way to obtain effective control. When hunting is permitted, it is difficult to determine whether a particular carcass is below the quota or above it. When there is a moratorium, any carcass is above the quota. A moratorium is especially appropriate for whales (as opposed to elephants) because of the diversity of whale species. If the IWC permits some species to be hunted but forbids others, monitoring will need to be near perfect, since inspectors cannot differentiate between endangered whale meat and permissible whale meat.



IX. Protecting and Managing Transnational Watercourses

Unlike the oceans, which are primarily international waters, rivers and lakes are within the jurisdiction of national states. When rivers or lakes constitute boundaries between nations or flow through more than one nation the environmental protection and management of these waters are regulated by international law. This regulation often addresses such issues as water pollution, fishing practices, diversions, and the construction of hydroelectric dams. The most common form of international law in regard to transnational watercourses is treaties between or among the affected riparian nations.

Managing the Rhine River in Europe

The Rhine River basin has a population of over 40 million and includes the majority of the inhabitants of Switzerland and the Netherlands and about a fifth of the populations of Germany and France. The high concentration of population and industry in the basin has resulted in serious conflicts over waste management and pollution control. Most of these conflicts have centered on a downstream nation's, the Netherlands' opposition to water pollution by upstream nations (Germany, France, and Switzerland).

In response to these conflicts, several international treaties have been adopted relating to management and environmental protection of the Rhine. These agreements include the 1976 Conventions on the Protection of the Rhine against Pollution by Chemicals and Pollution by Chlorides. In 1976, these treaties were the subject of a high-profile international controversy between the Netherlands and France, in which the Netherlands sought to ban the environmentally destructive industrial practices of a French mining company. The French company was discharging its industrial waste into a water

catchment for the Rhine, which then carried the pollution downstream into the Netherlands. The European Court of Justice (ECJ) ruled that the French mining company's activities violated international law. The ECJ ordered the French company to pay restitution to the damaged downstream parties.

U.S. and Canadian Management of the Great Lakes

The Great Lakes constitute part of the border between the United States and Canada. The first bilateral treaty regarding the Great Lakes was the 1909 Boundary Water Treaty, which created the U.S.-Canada International Joint Commission (IJC). This treaty was followed by the Great Lakes Water Quality Agreements of 1972 and 1978. Unlike the 1909 treaty, which addressed more general navigation and jurisdiction issues, the last two treaties focused more directly on environmental concerns.

Under the terms of the Great Lakes Water Quality Agreements, parties undertake to eliminate or reduce to the maximum extent practicable the discharge of pollutants, to prohibit toxic discharges, and to adopt water quality standards and regulatory measures consistent with the objectives set out in the treaty. Further measures involving the treatment of discharges from industrial, agricultural, municipal, and other sources are also specified. Compliance with and implementation of these provisions is monitored by the IJC.

The IJC's effectiveness in water use issues arises primarily from its role as neutral adviser and fact-finder. The IJC's advisory boards are staffed by impartial professionals. Throughout its existence, the IJC's commissioners, particularly the two chairs (one from the United States and one from Canada), have respected and



maintained the commission's role as neutral problem solver. The two governments view IJC recommendations as both technically competent and uncompromised by national biases. Over its 75-year history, about 80% of the IJC's recommendations have been accepted by both governments. The IJC has generally not tried to stretch its power by setting policy or devising regulations. Implementation of the IJC recommendations is left to each country.

The IJC is often portrayed as a successful model institution for dealing with transboundary disputes, especially disputes over water-quantity issues (levels and flows of water). Part of the IJC's effectiveness in resolving disputes results from its relatively limited use. Canada and the United States originally created the IJC to deal exclusively with problems such as water diversion, flood control, and hydroelectric power generation, where the solution could benefit both nations. Although the IJC is authorized to sit as arbitrator and render a binding decision on almost any issue under the Boundary Waters Treaty, the two countries have never invoked that authority.

U.S. and Mexican Management of the Colorado and Rio Grande Rivers

The Colorado River flows from the United States in the north to Mexico in the south. The Rio Grande River, with headwaters in Colorado and major tributaries in northern Mexico, flows southeast and forms part of the international border between Mexico and Texas. To serve agricultural, industrial, and municipal demand, the United States has diverted large quantities of water from these rivers. These diversions have resulted not only in reduced flow to Mexico but also downstream salinity and pollution resulting from agricultural runoff and industrial waste.

Two bilateral treaties have been adopted to deal with these transboundary water issues—the 1944 Treaty on Utilization of the Waters of the Colorado and Rio Grande, and the 1973 Agreement Enforcing Salinity Provisions of the International Boundary and Water Commission. These agreements are designed to ensure that Mexico retains an allotted share of river flows and to control and reduce water pollution. Although these treaties provide the framework for more

equitable and environmentally responsible water management, they have so far failed to protect Mexico's economic or environmental interests. The United States has continued to build dams and divert large quantities of water. Thus, despite the agreements, water flows to Mexico remain inadequate and water quality remains poor.

The Gabcikovo Dam Project

In September 1997, the International Court of Justice addressed a dispute brought to it by Slovakia and Hungary concerning the Gabcikovo Dam, a hydroelectric dam on the Danube River in Slovakia, at the Hungarian border. Hungary wanted to stop the project because of adverse consequences to the environment and the riverbed. The court urged further negotiations between the two countries. This suggests that diplomacy may be more important than law in resolving border disputes.



X. Protecting the Global Commons

There are some areas of sea, land, and air that do not fall within recognized national boundaries. These areas are referred to as the global commons. The three primary examples of global commons are international waters (waters located outside each country's 200-mile exclusive economic zone), Antarctica, and the atmosphere.

1982 United Nations Convention on the Law of the Sea

The United Nations Convention on the Law of the Sea (UNCLOS) established several duties regarding the marine environment. These obligations include the duty to (1) "protect and preserve the marine environment"; (2) "take, individually or jointly as appropriate, all measures that are necessary to prevent, reduce, and control pollution of the marine environment from any source, using for this purpose the best practical means at their disposal and in accordance with their capabilities"; (3) "take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution."

UNCLOS also obliges nations to (1) cooperate on a global and regional basis with international organizations to formulate "international rules, standards, and recommended practices and procedures for the protection and preservation of the marine environment"; (2) "cooperate in the promotion of scientific research and data exchange programs regarding marine pollution"; (3) cooperate "in eliminating the effects of pollution and preventing or minimizing the damage"; and (4) establish appropriate scientific criteria for the formulation of international environmental "rules, standards and recommended practices and procedures for the prevention, reduction and control of marine pollution."

Implementation and enforcement of UNCLOS is left to individual member nations. One national strategy to ensure compliance is to prohibit dumping or destructive fishing techniques by all vessels registered in a particular country. Another strategy is to deny port privileges to vessels from nations that have failed to adopt similar national legislation implementing UNCLOS. Both of these strategies are means of controlling activity in international waters located outside national boundaries.

A major legacy of the Law of the Sea treaty process is the assertion by the so-called Group of 77 developing nations that the deep seabed, and minerals contained there, are the "common heritage of mankind." It logically follows that the profits from any mining of the deep seabed must be shared with all countries. Thus far, it has not proved cost-effective to mine the deep seabed. Also, the United States has not accepted the "common heritage of mankind" principle as applied to the deep seabed. Obviously, this is an area of international environmental law that is still evolving.

Antarctica Treaties Regime

Antarctica is a vast and remote continent covered almost entirely by ice. Without its ice cap, it measures about 2.7 million square miles; with its ice cap it covers some 5.4 million square miles and boasts a diameter of about 2,800 miles, making it the fifth largest continent. This immense ice sheet represents about 90% of the world's ice and 68% of the world's fresh water. Therefore, beyond its role as home to many of the world's most exploited species—seals, whales and certain fish—Antarctica exerts a dominant influence on the world's climate. It is also the continent about which the least is known, especially in terms of its impact on global environmental processes.



Before 1959, the absence of a common international regime to conserve Antarctica's resources led to the decimation of seals and whales in the Antarctic Ocean. Since 1957-58, the International Geophysical Year, Antarctica has been used primarily as a base for scientific research. In 1959, nations asserting claims to Antarctica through various legal theories entered into the Antarctic Treaty in order to further international cooperation in scientific research and to preserve Antarctica for peaceful purposes.

These competing nations initially negotiated the treaty as a stopgap measure until rightful ownership of the continent could be resolved. The treaty placed all current and potential claims in abeyance under Article IV. Due to international pressure by nations not originally party to the treaty to maintain the global nature of the continent, the system remains in place and has been supplemented flexibly and effectively over the years with other agreements, creating a comprehensive regime.

The 1958 Antarctica Treaty did not focus on issues relating to environmental protection or economic development. Natural resource development, however, is now a central issue in the debate over how to manage Antarctica. First, there is an increased interest in Antarctica's marine biological stocks. Second, the Antarctic Ocean is a major habitat for marine mammals in general and whales in particular, and these mammals have become a symbol of international conservation and environmental efforts. These factors have forced the international community to confront concerns that were not at issue when the 1958 treaty was negotiated.

To supplement the initial treaty, subsequent agreements were negotiated to deal with natural resource protection and management in Antarctica. First, in 1964 parties to the treaty created the Agreed Measures for the Conservation of Antarctic Fauna and Flora. In 1972, the Convention for the Conservation of Antarctic Seals took effect. An additional conservation measure is the 1982 Convention on the Conservation of Antarctic Marine Living Resources. The discovery of possible mineral deposits in Antarctica led international cooperative efforts to take a turn for the worse. While

state parties met and created the 1988 Convention for the Regulation of Antarctic Mineral Resources Activities (CRAMRA), to date it has not been ratified. Intense opposition from environmentalists has made it extremely unlikely that this mineral exploration convention will ever be ratified.

This controversy prompted the creation of a Protocol on Environmental Protection to the Antarctica Treaty in 1991. The 1991 protocol expressly designates Antarctica as a "natural reserve... devoted to peace and science." The agreement also establishes a Committee for Environmental Protection, responsible for ensuring protection of the Antarctic environment. This committee's responsibilities include undertaking environmental impact assessments for scientific projects, facilitating the exchange of scientific information, and resolving disputes among signatory states regarding compliance with the protocol. In addition, the protocol prohibits all mineral activities except those in pursuit of scientific research. This prohibition, by the protocol's own terms, may not be reviewed without unanimous consent of all parties, for 50 years following the ratification of the protocol. After the initial 50-year period it may be changed only by a majority.

The most glaring weakness of the protocol is its requirement for ratification by all parties to the original 1958 treaty in order to enter into force. This has not yet occurred. In addition, considering the extreme controversy surrounding both the initial effort in CRAMRA and the counterbalancing effort in the protocol, it appears questionable whether the protocol will ever enter into force. Thus, Antarctica is under the aegis of a fragmented international regulatory scheme that seems to take insufficient account of the potential for vast environmental degradation through mineral resources exploitation.



XI. Protecting Forest Ecosystems

At the 1992 Earth Summit in Rio, more than 178 states adopted a statement of principles for the sustainable management of forests. Although the principles adopted are nonbinding and lack the force of international law, the statement does provide a good basis upon which a future legally binding multilateral agreement may be built.

1992 Statement of Forest Principles

The agreement title, Forest Principles: Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, reflects the difficult politics that surrounded its drafting and adoption. The forest principles statement calls for information and technological exchange among parties to the agreement, encourages public participation including that of indigenous peoples likely to be affected by a proposed forest project, acknowledges the extreme importance of conducting sustainable forestry practices, and specifically states that “special attention should also be given to the countries undergoing the process of transition to market economies.”

From the history surrounding the development of the forest principles statement, it is evident that some international support does exist for a binding multilateral forest agreement. During the annual Group of Seven (G-7) industrial nations’ economic summit in 1990, the G-7 heads of government endorsed negotiation of a forest protection treaty. Since the G-7 economic summit, the United States has favored a global forest management and protection treaty including both tropical and temperate forests. United States negotiators pursued their goal of a global forest treaty at the 1992 Earth Summit, but several developing countries strongly resisted a binding treaty. Developing countries, in particular India and Malaysia, viewed industrialized nations’ attempts at negotiating a binding agreement as a means of stripping them of their

sovereign right to exploit their own resources.

What finally emerged from the Earth Summit was a nonbinding “soft” legal instrument containing 15 principles, 13 of which merely recommend what states should do to ensure sustainable forestry practices. While environmental organizations criticized the Statement of Forestry Principles in its final form, delegates to the summit said that negotiations were so contentious that any agreement signified progress. As David Payton, minister of trade for New Zealand stated, “It’s a vital start. Before, we had nothing.”

In 1997, the Committee on Sustainable Development established the International Forum of Forests (IFF) to develop more binding forestry principles, perhaps in the format of a separate forest protocol or amendment. At the time of this writing, the IFF had not established specific standards for sustainable forestry or created any new institutions to ensure compliance with the 1992 Statement of Forest Principles.

1983 and 1994 International Tropical Timber Agreements and the International Tropical Timber Organization

Adopted in 1983 under the auspices of the U.N. Conference on Trade and Development, the International Tropical Timber Agreement (ITTA) was designed to regulate the trade in tropical timber, a market of some \$7.5 billion per year. The current ITTA is primarily a commodity agreement focused on tropical timber—hardwoods. Tropical timber is defined within the agreement as nonconiferous tropical wood for industrial uses produced in countries situated in the tropical zone.

The ITTA’s objective is to provide an effective framework for cooperation and consultation between producing and consuming countries with a view to expanding and diversifying international trade in tropical timber and improving structural conditions in the market. Research and



development projects aim, for instance, at improving forest management, including reforestation. Other areas cover wood use, improving market intelligence, encouraging the processing of tropical timber in producing countries, improving marketing and distribution of exports, and maintaining ecological balance.

To implement the agreement, the International Tropical Timber Organization (ITTO), which functions through the International Tropical Timber Council, was established. The ITTO, based in Yokohama, Japan, consists of 23 producing countries including Brazil, Colombia, Peru, Malaysia, India, and Indonesia, and 26 consumer nations including Australia, China, France, Germany, Japan, and the United States. The ITTO's functions are to promote international cooperation, coordinate statistical data, and support research and development on use, reforestation, and marketing of tropical forest products.

Although its major concern is with the tropical forest products trade, the ITTO has also focused on sustainable forest management. For example, the ITTO has required member nations to file detailed reports covering such areas as the legal and institutional framework for forest policies, areas and distribution of protected and producing forest, production levels, prices, and stocks. The ITTO has also discussed the possibility of imposing conditions for labeling timber from sustainably managed forests and reducing duties on those products.

The 1994 ITTA was agreed to on January 26, 1994 in Geneva. The new agreements objectives are similar to those of the original ITTA. The 1994 agreement aims to (1) promote and support research and development and to improve market intelligence to ensure greater transparency in the international timber market, and (2) promote processing of tropical timber from sustainable sources in producing-member countries to help promote industrialization and increase employment opportunities and export earnings. The agreement also aims at improving marketing and distribution of tropical timber exports from sustainably managed sources and at encouraging member states to develop national policies to sustainably manage and conserve forests.

The 1994 ITTA has a new provision calling for all tropical timber exports to come from sustainably managed forests by the year 2000. This pledge, labeled "Target 2000," calls upon ITTO member nations to "implement appropriate guidelines and criteria for sustainable management of their forests comparable to those developed by the International Tropical Timber Organization" and to encourage "the national objective of achieving sustainable management of their forest by the year 2000." Second, the Bali Partnership Fund was established. Under the terms of this new fund, industrial countries pledge to provide significant resources to help developing countries pay for forest conservation efforts.

Target 2000 and the Bali Partnership Fund have been heavily criticized by nongovernmental organizations (NGOs) involved in forest protection. This criticism has focused on the ITTO's refusal to establish objective standards for sustainable forestry and the minimal amount of funding currently pledged to the forest conservation fund. These new provisions are viewed as environmental window-dressing for the ITTA/ITTO's primary purpose—to increase the supply of timber and the profitability of the timber industry.

Timber Certification

During the 1990s several NGOs have emerged with the goal of harnessing consumer pressure to promote sustainable forestry. One such organization, the Forest Stewardship Council, certifies that particular timber has been sustainably logged. Other NGOs urge consumers not to buy tropical hardwoods. Consumers can use this labeling or certification to guide their purchases. Various cities have adopted resolutions favoring sustainably logged forest products, including paper. To date, labeling or certification affect less than 10% of the timber market.

Timber industry officials have charged that these wood certification and labeling programs violate at least the spirit of the General Agreement on Tariffs and Trade (GATT). To date, none of these programs has been effectively challenged under GATT.



XII. Conclusion

International environmental law, then, is not a single body or a single type of law designed to cope with a single issue. Rather, it is a mix of agreements, negotiations, and contracts—public and private, soft and hard, bilateral and multilateral, binding and non-binding, aspirational and substantive. Its purposes are to regulate, manage, and hopefully sustain and conserve the environment and natural resources of a densely populated planet that is continually changing.

Beyond its intricacies of content and application, international environmental law is an exercise in compromise and negotiation between and among sovereign nations that have traditionally been very protective of their rights. It is also law that coexists with other sometimes complementary but often contradictory international laws, such as those affecting human rights and free trade. Thus, international environmental agreements are always end-products of diplomacy and bargaining, counterbalanced by environmental threats of an increasing or unprecedented severity. Some efforts are more successful than others.

Having considered many of the international environmental arrangements that are currently in effect or under serious consideration, we draw your attention particularly to the introductory sections on North-South conflicts, human rights, and environmental justice. These are likely to be the issues of the next century. Increasing numbers of treaties and agreements recognize the need to distribute the planet's resources and wealth more equitably among developed and developing nations, richer and poorer peoples, and among different racial and ethnic populations.

There are certainly significant obstacles to achieving sustainable and equitable management of the earth's resources. National governments

are often reluctant to grant authority to international institutions. Developed countries are often reluctant to share profits and valuable technology with developing countries. The present generation is often reluctant to make sacrifices to protect the welfare of future generations. Although these obstacles are certainly daunting, they are not insurmountable.

The development of international environmental law over the past 25 years demonstrates that intelligent and effective environmental management is possible at the international level. Progress has occurred, although its pace has been slow. The next generation of leaders must now continue the work that has been started. The current body of international environmental law should provide this new generation with an important and useful foundation upon which to build.



Study and Discussion Questions

I. What is International Environmental Law?

1. Given that most international environmental law is merely aspirational and cannot be enforced in any court, can it play an effective role in promoting environmental protection?
2. If there is generally no effective forum to enforce international environmental agreements, how is compliance ensured and how are violators punished? What role do diplomacy and economics play in furthering compliance with international environmental law?
3. What is the impact of aspirational international environmental standards on enforceable national environmental laws? Conversely, what is the impact of enforceable national environmental laws on the development of international environmental law?
4. Is international environmental law effective in building or demonstrating a global consensus on the need for improved environmental protection? On what specific environmental issues has a global consensus been reached?
5. There are significant costs and administrative burdens associated with implementing international environmental treaties. Does this not put richer countries in a better position to comply with environmental treaties? Should richer nations be required to provide money, resources, and technology to poorer nations to help them better comply with environmental treaties?
6. How certain does the international community need to be regarding the accuracy of scientific data and other information before it takes steps to remedy a problem? What if the information later proves to be inaccurate? What types of institutions or treaty provisions are capable of effectively responding to these information-related issues?

II. Established Norms of International Environmental Law

1. Norms of customary international law evolve through custom and usage. Why types of political actions and use help contribute to the development of customary international law? How can norms be used to help improve global environmental conditions?
2. Consider some of the other norms addressed above, such as the right to a healthful environment. How deeply rooted are the definitional problems inherent in this right? Is there one standard by which all environments should be judged, or is it a relative concept? How does this right relate to other rights, for example, the right to life? If cutting down trees for firewood destroys the environment but provides life-sustaining fuel, which right will prevail? Which right should prevail? How much weight does each of the two rights carry when the concept of intergenerational equity is introduced?
3. Is saving the environment for the sake of the environment going to appeal to the majority of people, or does there have to be a more direct economic or health benefit? Do future generations have to be so immediate and related that we feel a direct responsibility for them? If so, how possible is long-range planning?

III. North-South Conflicts over Environmental Protection and Resource Management

1. What exactly is "sustainable development"? Is there a difference between "economically" sustainable growth and "ecologically" sustainable growth?
2. Given that most developed countries attained their wealth by unsustainably exploiting natural resources, is it fair or



reasonable to require developing countries to act differently? Should developed countries be required to provide money and resources to help developing countries implement more sustainable environmental and natural resource policies?

3. Most global population growth is occurring in the developing world. Additional people will place additional strains on the developing world's already degraded environment and natural resource base. What steps can the international community, and individual nations, take to control population growth in the developing world?

IV. Conflicts between International Trade Law and International Environmental Protection Efforts

1. Unlike most international environmental law, GATT possesses the institutions and prestige to enforce its provisions. Is this simply because GATT is older and has developed better dispute resolution mechanisms, or is it because the global community puts greater emphasis on commodities and trade than on the environment and conservation?
2. In the United States, unregulated commerce failed to provide for environmental protection and sustainable natural resource management. That is why environmental regulatory laws, such as the Clean Air Act and Clean Water Act, were adopted. If free trade has failed to ensure environmental protection at the national level, how will GATT's free trade provisions provide environmental protection at the international level? Is an unregulated market the proper mechanism for saving the environment?
3. Leaving aside the question of whether an unregulated market can protect the environment, are there ways to use the market and financial incentives to induce environmentally responsible behavior? Consider the use of subsidies and tax breaks for industries or practices that benefit, or minimize damage, to the environment. Are these types of

incentives or assistance compatible with GATT's free trade provisions?

4. Compared with GATT, NAFTA and the European Community have done a better job of responding to environmental concerns. What lessons can GATT learn from these regional trade regimes?

V. Relation between Environmental Protection and Human Rights

1. Why do indigenous people deserve special protection? What value do indigenous people add to the global community?
2. Is it patronizing to give indigenous people "extra" protection? Does it imply that they cannot fend for themselves like others? What if a group of indigenous people no longer wants special status but would rather assimilate into mainstream culture? For the sake of diversity do we then *force* them to remain "conserved"?
3. What are the difficulties involved in enforcing a constitutional right to a healthful and clean environment? What lessons can be learned from the experience with enforcement of other constitutional rights, such as free speech, free exercise of religion, and freedom from racial discrimination?
4. In most countries, environmentally dangerous facilities such as landfills and factories are usually placed in poorer neighborhoods. Is this placement motivated simply by economics? Is it because poorer neighborhoods often contain large populations of ethnic minorities, and these minorities are not afforded the same health and civil rights protections as the majority?
5. Given the transboundary nature of such environmental problems as global warming, water pollution, and air pollution, why do developed countries refuse to help improve environmental protection policies in the developing world? What economic interests motivate this decision?



VI. Air Pollution and Protection of the Atmosphere

1. What are the advantages and disadvantages of moving from a framework agreement to a more substantive protocol? Does the framework help establish the consensus and foundation necessary to implement subsequent specific provisions? Or does the framework simply delay the process, wasting time and energy on aspirational principles when substantive standards are urgently needed?
2. The uncertainty of the scientific data on global warming remains a contentious issue. How does the uncertainty of scientific data relate to the precautionary principle, one of the fundamental norms of international environmental law? What if the only way to know for sure what the effects of something are is to wait and see?

VII. The Control of Hazardous Wastes on Land and Sea

1. The Basel Convention is viewed by many as sanctioning the practice of exporting hazardous wastes by developed countries—a practice that degrades the environmental and health conditions in developing countries. Should the Basel Convention have enforced an absolute ban on such exports instead of approving the legitimate and regulated transport of hazardous wastes? Would such a ban have been realistically enforceable?
2. In light of the right of a nation to develop and the dire economic straits that many developing countries find themselves in, do they not have the right to import hazardous wastes if they so choose? Would a ban on the export of hazardous waste be viewed as an example of eco-imperialism from the perspective of the developing world?
3. Perhaps the most difficult issue with respect to the hazardous waste trade is how to effectively regulate private parties, primarily transnational corporations (TNCs). The Basel Convention only applies to policies of

nations, not TNCs. What types of national or international laws could ensure the responsible environmental behavior of TNCs? Do such laws currently exist?

VIII. Protecting Endangered Species on Land and Sea

1. Although CITES prevents the international trade in endangered species, it does not prevent the killing or sale of endangered species within a country's borders. Does CITES' inability to regulate the killing and sale of endangered species within a country's borders render the agreement ineffective?
2. What is the relation of CITES' trade restrictions to the free trade rules established under GATT? Does one agreement have legal priority? What forum or court has the power to determine the legal relationship between CITES and GATT?
3. Many critics contend that CITES only provides protection for animals we find appealing, such as pandas or tigers. Animals for which there is no market or public concern are left at risk. What are the problems, from both an ecological and moral standpoint, with basing the right to protection on the economic utility and emotional appeal of a particular species?
4. While the Biodiversity Convention has been criticized for being only an aspirational framework agreement, is it possible to create a treaty with more specific substantive obligations covering a topic as large as the planet's biodiversity? What substantive protocols might be added to the Biodiversity Convention to make it more specific and enforceable?
5. Japan claims that its cultural traditions give it the right to harvest whales, while the United States supports a whaling moratorium to preserve biodiversity. Is Japan using the cultural tradition argument to shield an environmentally destructive yet lucrative industry? Or is the United States imposing its own cultural biases against Japan?



6. Fundamental to the debate over biotechnology is the issue of whether certain plant and animal species should be legally treated as private property. Are there ecological or moral problems with treating species the same way we treat patents and trademarks under traditional intellectual property law?

IX. Protecting and Managing Transnational Watercourses

1. There is no enforceable global agreement dealing with transnational watercourses. Is this because bilateral and regional agreements have done an adequate job of managing and protecting transnational watercourses?
2. What is the relation of water rights (diversion and appropriation) to water quality (pollution)? How are these two issues distinguished or handled in agreements dealing with transnational watercourses?
3. When an upstream country diverts or pollutes water that is critical to a downstream country, are money damages adequate compensation?
4. How does the relative wealth of nations affect transnational watercourse management? Is a wealthier downstream country better able to protect its water resources from upstream diversion or pollution than a poorer downstream country?

X. Protecting the Global Commons

1. Although they are both considered part of the global commons, are there reasons why Antarctica and the high seas should be regulated differently?
2. To help prevent destructive fishing on the high seas, the United States passed a law banning the import of fish caught in driftnets. Is this law compatible with GATT's free trade rules? If they are not compatible, should GATT or the U.S. law be amended?
3. It is extremely difficult to monitor activities on the high seas. Given this difficulty, is it possible to ensure compliance with

agreements that regulate activities on the high seas? If they cannot be effectively monitored, does this mean that such agreements, regardless of their language, should be regarded as soft, aspiration international law?

XI. Protecting Forest Ecosystems

1. What is the relation of forest protection to the trade in timber and wood products? Should these issues be regulated in separate international agreements, or should they be addressed in one comprehensive forest protection-timber trade treaty?
2. Should the International Tropical Timber Agreement (ITTA) be expanded to handle all types of timber, making it simply the International Timber Agreement? What would be the advantages and disadvantages of extending the ITTA?
3. In many developing countries, indigenous people are forcibly removed from the forest by national governments to facilitate logging. Much of this logging is being done by multinational companies based in the developed world. Are there problems, from either an environmental or human rights standpoint, to this situation? Given that their national governments will not protect their rights, how can indigenous people protect themselves?



Glossary

- Biodiversity**—Biological diversity; the variety of ecosystems in the world as well as the variety of plants and animals in each ecosystem.
- CITES**—Convention on International Trade in Endangered Species of Wild Fauna and Flora.
- Convention** —An international agreement among nations.
- CSD**—Committee on Sustainable Development, which oversees implementation of the Convention on Biological Diversity.
- Directives**—Measures adopted by the European Union (EU). Although each of the EU's member states is bound by directives, they may design their own implementing national legislation.
- ECJ**—European Court of Justice.
- Eco-Imperialism**—The view that wealthy developed nations (the North) are using environmental issues and international environmental law to keep poor developing nations (the South) in an economically disadvantageous trade position.
- Ecosystem**—A system made up of a community of all biota—including animals, plants, and bacteria—and its interrelated physical and chemical environment.
- ESA**—Endangered Species Act (U.S. federal law).
- Extraterritorial**—Outside or beyond the territorial limits of a country.
- EU** —European Union.
- Flag state**—The nation with which a ship is legally registered.
- G-7**—The Group of Seven, an organization of seven industrial nations (Canada, France, Germany, Italy, Japan, United Kingdom, and the United States) that meets annually to discuss economic issues. In the 1990s, Russia became an invited participant.
- GATT**—The General Agreement on Tariffs and Trade, now administered by the World Trade Organization.
- GEF**—Global Environmental Facility. An international fund administered jointly by the World Bank, the United Nations Environment Programme, and the United Nations Development Programme, created in 1992 to support environmental protection projects in developing countries.
- Global Commons**—Geographic regions, such as the Arctic and Antarctic and the international high seas, that are not the territory of any nation.
- ICJ**—International Court of Justice, often called the World Court.
- Instrument**—A legal document, such as a law or contract.
- ITTA/ITTO**—International Tropical Timber Agreement/International Tropical Timber Organization.
- Jurisdiction**—The authority or power of a judicial body to decide a case.
- LDC**—Less-developed country.
- MARPOL**—1973 International Convention for the Prevention of Pollution from Ships.



Maquiladora zone—A region in northern Mexico along the U.S. border in which many factories, dominated by American and Japanese companies, are located. The term is associated with the health and environmental problems that developed in the region.

MMPA—Marine Mammal Protection Act (U.S. federal law).

NACEC—North American Commission on Environmental Cooperation, created under the 1993 North American Agreement on Environmental Cooperation.

NAFTA—North American Free Trade Agreement.

NEPA—National Environmental Policy Act (U.S. federal law).

NGO—Nongovernmental organization.

Polluter pays principle—The principle under which the party responsible for pollution or degradation of natural resources pays for restoration, clean-up, economic losses, and health injuries.

Protocol—An international agreement that implements an earlier agreement on the same subject. A protocol usually contains numerical goals, timetables, abatement measures, and enforcement provisions.

Riparian—Related to a natural water course; a nation or private party attached or adjacent to a river or lake is referred to a riparian.

Seed Wars—Disputes between transnational agricultural corporations and farmers in developing countries over the control and use of patented crops.

Thermal power—Power produced by burning coal, oil, and gas to produce steam to drive turbines that produce electricity.

TNC—Transnational corporation; a company that imports raw materials, locates production facilities, or exports final products in more than one country.

UNCED—1992 United Nations Conference on Environment and Development, also known as the Rio Earth Summit.

UNCLOS—United Nations Convention on the Law of the Sea.



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