INTERNATIONAL LAW, REGULATIONS AND ENVIRONMENTAL HISTORY

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The regulation of the environment at the international level is still a relatively new field, yet the history of humanity is inextricably tied to the natural resources on which our civilizations depend. As human societies have grown, so too have their demands and impacts on the ecosystems around them. From small nomadic tribes of hunter-gatherers, to settled agriculturalists and, ultimately, avid industrialists, human resource consumption has kept pace with our population growth and development, with each transition placing more pressure on the natural world than the last. Both our demands for natural resources, and the outputs and impacts of our industrial processes, have grown to spill over national boundaries, as states can neither sustain themselves with domestic resources alone nor prevent pollutants from escaping into neighboring territories. Concerns over natural resources have, therefore, evolved from local preoccupations into affairs of state or, more broadly, into issues with transboundary elements and consequences.

This chapter traces the development of international law as it relates to the environment, examining legal efforts to keep pace with these mounting demands and impacts of

human progress. Beginning with early nineteenth century treaties of modest ambition, we follow the evolution of international environmental law from isolated agreements intended to protect specific resource-dependent industries; to the early twentieth century rise of international organizations and a growing consciousness and commitment to international cooperation; to the landmark 1972 establishment of a dedicated international environmental organization and community; to the modern struggle to achieve balance in promoting both environmental protection and economic growth. Environmental law now impacts most every aspect of human activity and promises to remain highly relevant for centuries to come, as we face new and increasingly complex environmental threats. Learning from the lessons and successes of the past, we may remain equal to the challenge.

1. Introduction

The regulation of the environment at the international level is still a relatively new field, yet the history of humanity is inextricably tied to the natural resources on which our civilizations depend. As human societies have grown, so too have their demands and impacts on the ecosystems around them. From small nomadic tribes of hunter-gatherers, to settled agriculturalists and, ultimately, avid industrialists, human resource consumption has kept pace with our population growth and development, with each transition placing more pressure on the natural world than the last.

Records of human interaction with the environment can be traced back centuries to earliest recorded history. Domestic legal rules concerning the environment, its use, protection and so on can be found at every point in the history of humankind. Hindu, Buddhist, and many African traditions, among others, have long observed sacred groves for the worship of deities, not to be disturbed by human interference, while feudal England, China and India reserved many species and habitats for the exclusive use of lords and royals. Ancient texts also speak of ports landlocked by erosion, complex irrigations schemes that faltered when watershed forests disappeared, and cities that thrived by exporting crops only to later succumb to the limits of unsustainable growth. Early settlements confronted deforestation, agricultural exhaustion, erosion, loss of wildlife, and pollution, and struggled with water supply and waste disposal. Indeed, scholars agree that natural resource collapse played a role in the demise of the ancient Romans and Greeks, as well as of the Mayans of Central America, the Sumerians in the Middle East and the early Polynesian settlers of Easter Island, among others.

Many environmental rules and policies adopted in ancient societies are familiar as well, such as planting parks, establishing protected areas, and moving on to new territories to allow earlier settlements suffering resource exhaustion to recover. Those civilizations, for whom such measures sufficed, survived to evolve ever greater and more complex domestic rules and policies regulating the uses of natural resources, culminating in the ascension of fossil fuel energy sources and the industrial age. Highly productive and beneficial, these advances also placed unprecedented demands on the natural environment, not only in terms of inputs but also absorption of the waste products and other outputs of industrial processes. Both the need for natural resources and the byproducts of industrialization quickly spilled over national boundaries, as states could neither sustain themselves with domestic resources alone nor prevent pollutants from

escaping into neighboring territories, bringing states into competition and conflict with their neighbors. Domestic legal rules and policies were, therefore, no longer sufficient to adequately regulate the environment. It is at this junction that international environmental law begins to emerge, as concerns over natural resources evolve from local preoccupations into affairs of state or, more broadly, into issues with transboundary elements and consequences. This chapter traces the development of international law as it relates to the environment, examining legal efforts to keep pace with the demands and impacts of human progress.

It is important to stress, that international law primarily regulates relationships between states. Technically, only states are full subjects of international law, that is to say have full legal rights and obligations under the international legal system. For example, states can negotiate and ratify international agreements to protect the environment. States can bring legal claims in international fora for alleged breaches of such agreements. Alongside States, international organizations are also considered subjects of international law, although their rights and obligations are limited and circumscribed by a specific organization's constitutive instrument. For instance, the legal rights and obligations of the United Nations are those conferred upon the organization by its founding Charter. Many other entities, however, play a crucial role in international relations and law, particularly when it comes to environmental matters. International environmental problems deeply involve the scientific community, on whose determinations much of environmental legislation depends; the business community, for whom environmental laws can have significant consequences; environmental non-government organizations (NGOs) concerned with the health and future of the planet; and individuals and many other stakeholders who all play different but equally important roles in shaping international regulations on the environment. Still, states remain the primary subjects of international law, as the actors that adopt and implement international legal rules including those provisions delimiting the participation of non-state actors.

International legal rules, including those on the environment, are found in different instruments. The primary sources of international law, as they are commonly known, are customary law and treaties. Customary rules are legally binding upon all states and are created through state practice validated by *opinio juris,* that is the belief that a particular behavior is legally required. In the environmental field, very few rules, as we will see, are considered customary rules of international law. The majority of international regulations on the environment are found in international treaties: written agreements that create legal rights and binding obligations between those states that have ratified or acceded to a given treaty (so called Contracting Parties). Treaties may be between two states (bilateral), or many states (multilateral) at the regional or global level. As we shall see, treaties adopt and set forth rules and principles that guide not only the immediate agreements in which they appear, but also those that come after, contributing to the development of a shared approach to environmental protection among nations.

Another important source of regulation in international environmental affairs is soft law. Soft law refers to standards that are not legally binding but with which states and other actors habitually comply nonetheless. Examples include provisions in binding legal

instruments that are worded with the non-obligatory 'should' rather than a compulsive 'shall;' as well as standards that are framed in obligatory language in non-binding instruments. Such phrasings are often the result of a compromise between states that would willingly submit to regulation in hard law form and other states that agree on the substantive issues but do not with to be legally bound to comply. Soft law is an ever growing element of international environmental law, encompassing the many voluntary standards and guidelines promulgated by international actors for tackling various environmental issues. While not technically binding themselves, soft laws may eventually become binding if, over time, compliance is so extensive as to earn them customary law status or if they are explicitly adopted as binding law in a later instrument.

2. Early International Environmental Law

Modern international environmental law is relatively new, dating back only a few decades to the early 1970s; however, international environmental regulation did not appear out of nowhere. Several legal provisions and events over the previous centuries provided the foundation for international environmental rules. The most significant among these events date back to the beginning of the 19th century, but domestic legislation dealing with specific environmental media can actually be traced as far back as the Middle Ages.

As alluded to above, environmental legislation, both at the national and international level, is often brought about by scientific research showing the existence of a particular environmental problem that needs to be addressed. One of the oldest conservation movements is, arguably, scientific forestry. While forestry management is still considered by many States technically a national, rather than international, field of regulation, when one considers that a small number of European countries controlled vast territories the world over for centuries, including the management of native forests, it takes on a decidedly international angle. With origins in France, which introduced its first forestry code in the 1300s and more stringent regulations in 1669, forestry science truly blossomed in 18th century Germany and, by the late 19th century, had produced several studies documenting the impacts of forest clearing for plantations, pastures and industrial installations on soil erosion and watersheds, as well as on the supply of timber and wood products.

One of the most important developments of this time was the concept of sustained yield, which held that scientists could accurately estimate an annual yield that would preserve the resource for sustained use over the long term. Growing support for this idea gave rise to national management schemes for natural resources the world over, including the 1859 Cape Colony of South Africa's Forest and Herbiage Protection Act; the Indian Forest Department, established in 1864 and still the largest land owner in the country; the passage of laws in 1865 to protect the forests of Java and India; and the passage of similar acts in Vietnam and Australia into the 1870s. Although not "international" in the strictest sense, the evolution of forestry legislation in several domestic jurisdictions documents the increasing importance of the environment for regulators and the cross-fertilization of different legal systems through the adoption of similar rules across nations.

Outside of the forestry realm, truly international agreements between states were adopted to regulated competing demands over wildlife resources. These treaties were typically *ad hoc* and focused on clear-cut immediate issues, such as direct competition over a particular species. Most significantly for our purposes, they applied existing principles and rules of international law; the development of distinctly environmental principles would in fact not occur for some time.

Bilateral and multilateral fisheries conventions began appearing in the mid-1800s. Key among them are the 1839 Convention between France and Great Britain for Defining the Limits of Exclusive Fishing Rights, and the 1882 Convention Between Belgium, Denmark, France, Germany, Great Britain and the Netherlands for Regulating the Police of the North Sea Fisheries. These Conventions introduced regulatory approaches that are relied upon to this today, including the establishment of fishing seasons outside of which harvesting was prohibited; regulations for nets and boat registration; and prohibitions on the sabotage of competing vessels.

Next came the 1900 Convention Destinée à Assurer la Conservation des Diverses Espèces Animals Vivant à l'Etat Sauvage en Afrique qui sont Utiles à l'Homme ou Inoffensive, through which European states sought to conserve the wildlife in their African colonies. Industrialization and imperial expansion had fueled one another: European ships built from Indochinese timber were delivering shipments of Indian cotton, African coffee and Caribbean sugar throughout their many outposts the world over. Meanwhile, a favorite pastime for young men serving in the colonies was hunting the exotic local game and, by the time of the Convention, many species were dangerously approaching extinction.

Though titled a convention for the preservation of animals, birds and fish, the actual substance of the treaty was quite limited. A few species, such as the giraffe and gorilla, were granted total protection but most, including the elephant, were relegated to a licensing scheme of hunting quotas, while others, among them the lion and leopard, were explicitly singled out for extermination as vermin. Concern for native wildlife led the conservation movement to expand rapidly across Asia and Africa; meanwhile, many native peoples were excluded from newly created protected areas and national parks, forcibly evicted from ancestral homelands on which their families had lived for generations, forbidden access to the ecosystems that had sustained them since the dawn of humanity.

Conventions to protect migratory birds soon followed, including the 1902 Convention to Protect Birds Useful to Agriculture and the 1916 Convention between the United States and Great Britain for the Protection of Migratory Birds in the United States and Canada. These conventions also employed regulatory techniques that are still in use today, protecting the birds themselves, as well as their eggs and nesting sites while allowing certain exceptions, such as for research and relocation. Similar protections were extended for the valuable fur seal under the 1911 Convention between Great Britain, Japan, Russia, and the United States Respecting Measures for the Preservation and Protection of Fur Seals. The Convention prohibited the killing of seals in the open sea, where expendable young males could not be distinguished from valuable breeding

females, limiting hunting to operations on land where breeding stock and bachelors naturally congregate in separate herds.

A significant distinction between the 19th and 20th century agreements is the introduction of such limitations on the harvesting of specimens in vital life stages. Scientific studies of the decline of key species led to the introduction of measures specifically tailored to conserving valuable breeding stock and their young offspring. In addition to the bird and seal conventions, notable treaties in this transition include the 1923 Convention Between the United States of America and Canada for the Preservation of the Halibut Fisheries of the Northern Pacific Ocean, and the 1929 Baltic Sea region fishery agreement between Denmark, Germany, Poland, Sweden for the conservation of plaice and flounder, which protected hatchlings and immature specimens; as well as the first whaling convention, the 1931 Convention for the Regulation of Whaling, which prohibited the killing of young whales and females with calves. The intent of these treaties, nonetheless, remained the preservation of valuable industries, rather than the wildlife itself.

The turn of the century also saw states committing themselves to preventing pollution with such agreements as the 1900 Convention between the Riverine States of the Rhine Respecting Regulations Governing the Transport of Corrosive and Poisonous Substances, and the 1909 Water Boundaries Treaty between the United States and Canada.

Apart from treaties, during this period a few key disputes also played a crucial role in the emergence of international rules on the environment. Decisions of international courts and tribunals can, in fact, find the existence of specific legal principles and contribute to their crystallization into rules of customary law. Two disputes, in particular, the Pacific Fur Seals Arbitration and the Trail Smelter case made significant contributions to the evolution of international environmental law.

The Pacific Fur Seals Arbitration involved a late 1800s dispute between the U.S. and Britain over whether states may regulate natural resources, in this case, fur seals, outside their jurisdiction for the purpose of conservation. As discussed above, seal harvesting at sea was viewed as destructive to the species and the United States sought to claim its Alaskan seal colonies as U.S. property and outlaw their harvesting beyond its territorial waters. The matter was submitted for arbitration and finally decided in favor of Great Britain in 1893. The tribunal held that states have no right of protection or property outside the ordinary limits of territorial waters and, instead, proposed joint regulations for a continuous prohibition on harvesting within an expanded 60-mile U.S. territorial zone and prohibited seasons in the greater Pacific Ocean. The model regulations provided the basis for the 1911 Convention and demonstrated the potential role for international law in resolving conflicts and conforming conduct.

One of the most famous environmental air pollution disputes was submitted to international arbitration only a few decades later. The 1935 Trail Smelter case involved damage to U.S. crops and forest land by smoke from an immense lead and zinc smelting complex in British Columbia. In its final decision of 1941, the Arbitral Tribunal set forth what was to become one of the first fundamental principles, now a customary rule,

of international environmental law: that "no State has the right to use or permit the use of its territory in a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence" (35 AJIL 716 (1941). Together with the early agreements, international rulings on transboundary environmental impacts kept in step with the growing realization that natural resources are limited and industrialization is not without harmful side effects that must be managed, laying the foundation for future action to preserve human societies and the resources on which they depend.

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Biographical Sketch

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