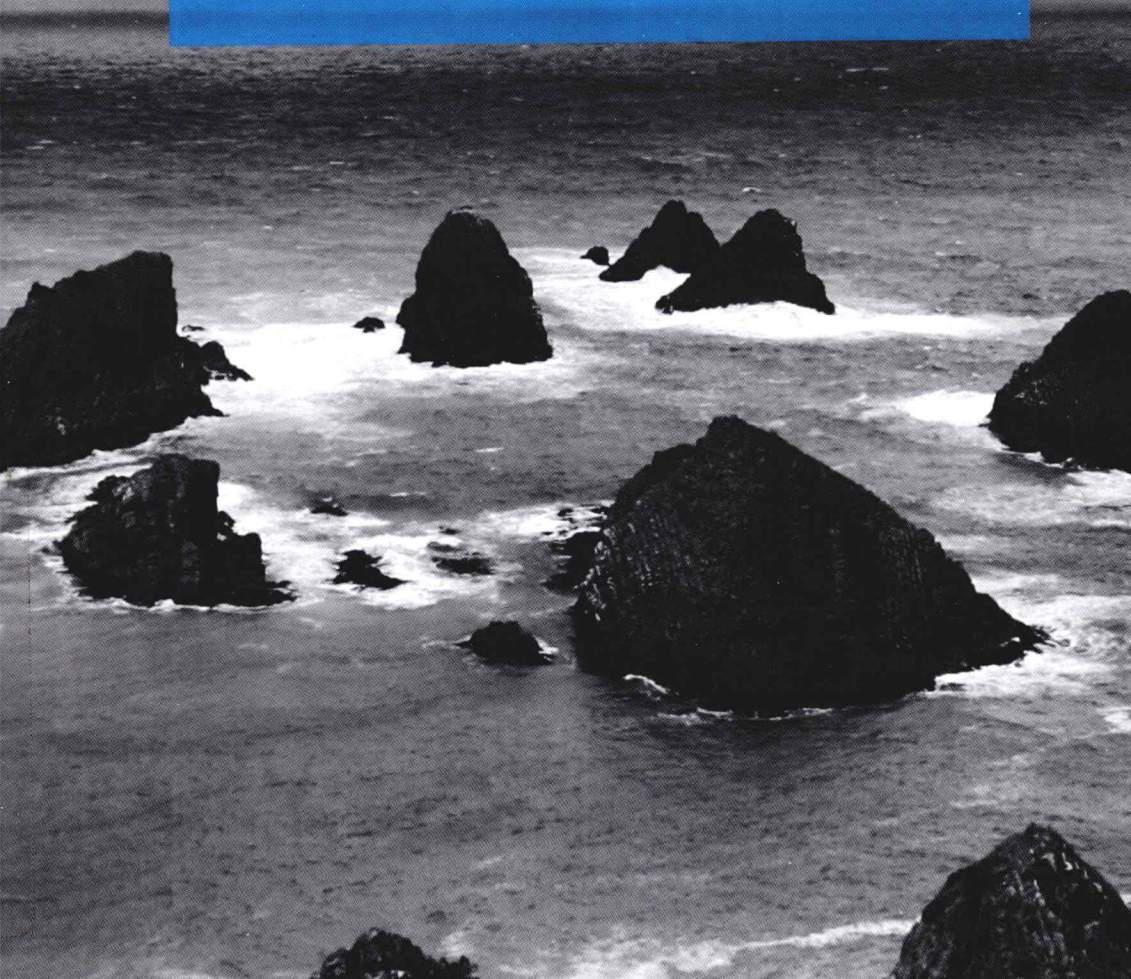


THE  
ART AND CRAFT  
OF INTERNATIONAL  
ENVIRONMENTAL LAW

Daniel Bodansky



# The Art and Craft of International Environmental Law

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DANIEL BODANSKY



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## Preface

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Although international environmental law is a comparatively new field, its rules and standards now fill books—and not short books either. A leading treatise on the principles of international environmental law runs to more than 1,000 densely packed pages, detailing rules of virtually every description on virtually every subject.<sup>1</sup> The volumes in a monographic series that I once co-edited now occupy almost six feet of bookshelf space.<sup>2</sup> And a compilation of international environmental documents included thirty volumes in its first series, with another six since then.<sup>3</sup> Not so long ago, international environmental law was considered a narrow specialty within the general field of international law. But today international environmental law has become a field in its own right, with sub-specialties on wildlife law, marine pollution, freshwater resources, climate change, sustainable development, chemicals, and so forth.

Most people have little familiarity with the field; they have heard, perhaps, of the Kyoto Protocol but little else. However, international environmental norms are often closer to home than they realize:

- When my air conditioning system broke down a few years ago, the technician reported that the coolant had leaked out. In its place he put in a synthetic chemical called HCFC-22. If the same problem had occurred twenty years earlier, the replacement would have been a more ozone-unfriendly chemical, CFC-12. In the future, it will be an even more environmentally benign chemical that does not contain chlorine. The changes have been driven not by changes in technology or in domestic law (though technology and domestic

law have both played a part) but by developments in the international treaty to protect the ozone layer.

- In the Wal-Mart near my house, fish packages now display labels saying that the fish were harvested in a sustainable manner, in compliance with standards developed by the Marine Stewardship Council. The Council is an independent non-profit organization that, according to its web site, “promote[s] sustainable fishing practices.” Along similar lines, a leading home improvement store, Home Depot, has announced that it will, to the extent possible, buy wood from sustainably managed forests.
- At home, my nine-year-old daughter refuses to eat tuna fish because she believes that doing so will harm dolphins. Recently, she asked, in a worried tone, whether we have any ivory in the house. And when, to be provocative, I asked “Is Rhino horn ok?,” she answered emphatically, “No, it is not!”

In countless ways, we are affected by international environmental norms, some social, others legal; some quite general, others very specific. The norms limiting the refrigerants used in air conditioners have been agreed to internationally, in legal form, and are mandated and enforced by the federal government. The sustainable fishery and forestry standards used by Wal-Mart and Home Depot were developed more informally by environmental groups and business, and are applied to producers through supply-chain contracts, without any government involvement. The reluctance to eat tuna fish or own elephant ivory reflects more general social norms, disseminated through education and culture.

How and why do these norms arise? In what ways do they affect behavior? Do they change what states and individuals actually do, and, if so, why? How effective are they in solving international environmental problems? These are the fundamental questions I examine in this book.

As the questions suggest, the book focuses on the processes by which international environmental law is developed, implemented, and enforced rather than on the substance of international environmental law itself—already the subject of several excellent treatises.<sup>4</sup> Process issues have received increased attention in recent years but have not yet received a book-length treatment. This work aims to fill that gap. Rather than focus on one or two aspects of the international environmental process, it examines the process as a whole, from beginning to end, synthesizing recent research on international environmental negotiations, treaty design, social norms, policy implementation, and effectiveness.

Understanding the international environmental process involves many disciplines—not only law, but also political science, economics, and, to a



more limited degree, philosophy, sociology, and anthropology. So this book is multidisciplinary. The aim is to provide the reader with the analytical tools necessary to understand what international environmental law is, how it operates, and what role it can play in addressing environmental problems.

In a wonderful book entitled *Nuts and Bolts for the Social Sciences*, Jon Elster wrote that his subtitle might have been “Elementary Social Science from an Advanced Standpoint”—or perhaps, alternatively, “Advanced Social Science from an Elementary Standpoint.”<sup>5</sup> Like Elster, I have attempted to write an elementary book from an advanced standpoint, with a stronger methodological and philosophical orientation than is typical in an introductory work. And, like Elster, “I have tried to avoid flogging dead horses or belaboring the obvious; to be honest about the inevitable simplifications; to write simply and without jargon; to respect the reader’s intelligence as well as his ignorance.”<sup>6</sup>

In addition to studying international environmental law as an academic, I have worked for many years on international environmental issues as a U.S. government negotiator, NGO adviser, and UN consultant. This experience colors my approach in this book in at least three ways.

First, the book is U.S.-centric. Although it attempts to address a wide range of issues from a broad array of perspectives, the choice of topics and examples inevitably leans on my background working in the United States.

Second, in the spectrum between what one analyst refers to as “moral outrage” and “cool analysis,” the book’s tone tends toward the latter.<sup>7</sup> Certainly, moral outrage is an understandable response to the environmental devastation wrought by modern industrialized societies. Indeed, solutions to problems such as climate change may, in the end, depend as much on moral outrage as on cool reason. But my experience as an international environmental lawyer has reinforced an inborn tendency to see the world in various shades of gray—to understand problems as involving complex trade-offs.

Finally, in the same vein, this book aims to be pragmatic. Although it is theoretical, it tries to provide a real-world perspective on how international environmental law works—and sometimes doesn’t work. Students and scholars of international law fall along a spectrum, from true believers at one end to complete cynics at the other. This book seeks a middle course. It reflects a degree of skepticism—hopefully a healthy skepticism!—about some of the more visionary claims regarding the role of international environmental law. But it does not throw out the baby with the bath water. Rather, it seeks a realistic understanding of both the role and the limits, the process and the prospects, of international environmental law.

## Abbreviations

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AOSIS	Alliance of Small Island States
ATCM	Antarctic Treaty Consultative Meeting
BAT	best available technology
CBD	Convention on Biological Diversity (1992)
CCD	Convention to Combat Desertification (1994)
CEC	Commission on Environmental Cooperation (U.S.-Canada-Mexico)
CFC	chlorofluorocarbon
CITES	Convention on International Trade in Endangered Species (1973)
COP	conference of the parties
CSD	UN Commission on Sustainable Development
EIA	environmental impact assessment
EMEP	European Monitoring and Evaluation Programme (short for Co-operative Programme for Monitoring and Evalua- tion of the Long-Range Transmissions of Air Pollutants in Europe)
ENMOD	Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (1976)
EPA	U.S. Environmental Protection Agency
ESA	U.S. Endangered Species Act

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FAO	Food and Agriculture Organization
FIELD	Foundation for International Environmental Law and Development
FSC	Forest Stewardship Council
G-8	Group of Eight
GATT	General Agreement on Tariffs and Trade
GEF	Global Environment Facility
IAEA	International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development (World Bank)
ICJ	International Court of Justice
ICRW	International Convention for the Regulation of Whaling (1946)
IFAD	International Fund for Agricultural Development
IJC	International Joint Commission (U.S.-Canada)
ILC	International Law Commission
ILM	International Legal Materials
ILO	International Labor Organization
IMO	International Maritime Organization
IO	international organization
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
ITLOS	International Tribunal on the Law of the Sea
ITTO	International Tropical Timber Organization
IUCN	International Union for the Conservation of Nature (also known as the World Conservation Union)
IWC	International Whaling Commission
LRTAP	Long-Range Transboundary Air Pollution Convention (1979)
MARPOL	International Convention for the Prevention of Pollution from Ships (1973/1978)
MEA	multilateral environmental agreement
MOU	memorandum of understanding
NAAEC	North American Agreement on Environmental Cooperation (1993)



NAFTA	North American Free Trade Agreement (1993)
NAMMCO	North Atlantic Marine Mammal Commission
NCP	non-compliance procedure
NEPA	U.S. National Environmental Policy Act
NGO	non-governmental organization
NO <sub>x</sub>	nitrous oxides
NPP	net primary productivity
ODS	ozone-depleting substance(s)
OECD	Organization for Economic Cooperation and Development
OILPOL	International Convention for the Prevention of the Pollution of the Sea by Oil (1954)
OSPAR Convention	Convention for the Protection of the Marine Environment of the North-East Atlantic (1992)
PIC	prior informed consent
POP	persistent organic pollutant
R&D	research and development
SIRS	systems of implementation review
SO <sub>2</sub>	sulfur dioxide
SPREP	South Pacific Regional Environment Programme
TED	turtle excluder device
TOVALOP	Tanker Owner Voluntary Agreement Concerning Liability for Oil Pollution
TRAFFIC	Trade Records Analysis of Flora and Fauna in Commerce (wildlife trade monitoring network established in 1976 by IUCN and WWF)
UNCED	United Nations Conference on Environment and Development (1992) (also known as Rio Summit or Earth Summit)
UNCLOS	United Nations Convention on the Law of the Sea (1982)
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change (1992)

UNICEF	United Nations International Children's Emergency Fund
UNTS	United Nations Treaty Series
VOC	volatile organic compound
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development (2002) (also known as Johannesburg Summit)
WTO	World Trade Organization
WWF	World Wide Fund for Nature

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## What Is International Environmental Law?

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Too many people assume, generally without having given any serious thought to its character or its history, that international law is and always has been a sham. Others seem to think that it is a force with inherent strength of its own, and that if only we had the sense to set the lawyers to work to draft a comprehensive code for the nations, we might live together in peace and all would be well with the world. Whether the cynic or the sciolist is the less helpful is hard to say, but both of them make the same mistake. They both assume that international law is a subject on which anyone can form his opinions intuitively, without taking the trouble, as one has to do with other subjects, to inquire into the relevant facts.

J. L. Brierly, *The Outlook for International Law*

### A Story

One evening a few years ago, a volunteer for a well-known environmental organization rang my doorbell to solicit a contribution. I declined, saying that I disagreed with the organization's positions on various issues. The volunteer demanded to know which ones. "Whaling," I replied—using the first example that came to mind—"... your organization's campaign against the resumption of commercial whaling by Norway." Not easily discouraged, the volunteer began to argue. "Norway's actions threaten the whales with extinction," he said. "No," I responded, rising to the bait, "most scientists think that the target species (minke whales) are abundant in the Northeast Atlantic and will not be endangered by the small number taken by Norway." After an inconclusive debate about the current state of whale science, the volunteer, in exasperation, played his trump card, exclaiming, "I suppose it doesn't matter to you that Norway is violating international law!" He had pressed the wrong button. I informed him, somewhat pedantically, that I happened to be a *professor* of

international law and that, as a legal matter, Norway is free to whale, since it submitted a timely objection to the International Whaling Commission's decision prohibiting commercial whaling. The environmentalist stomped off in search of greener pastures.

I mention this story at the outset because it illustrates many of the basic issues that we will be exploring in this book. To begin with, notice how the environmental volunteer made two different types of arguments regarding Norwegian whaling: first a policy argument and then a legal one. His policy argument was that Norwegian whaling is wrong because it threatens the viability of the Northeast Atlantic minke whale stock. The argument consists of (a) an implied goal, namely, management of whale stocks to ensure their continued existence, and (b) a factual claim that Norwegian whaling endangers the Northeast Atlantic minke whale stock. Crudely speaking, our disagreement was about facts rather than values. I accepted his implicit goal but disagreed about whether Norway's whaling is inconsistent with that goal. If minke whales are abundant, then conservation requires only that whaling be limited, not completely halted.

Many environmental disputes are of this factual variety. What is the likelihood of a nuclear reactor accident? Do persistent organic pollutants pose a fundamental threat to human and animal reproduction? Will the buildup of greenhouse gases in the atmosphere cause significant global warming? And, above all, are we approaching real physical limits on further economic growth? On these and many other essentially factual questions, there are a wide variety of views. My quarrel with the environmentalist thus epitomized a much broader category of disputes concerning the real state of the world. On the one hand, neo-Malthusians<sup>1</sup> have argued for decades that there are limits to growth, which we are fast approaching. On the other hand, "Cornucopians"<sup>2</sup> respond that environmental problems tend to be exaggerated, that on the whole the environment is improving, and that human capital (in the form of human ingenuity) will continue to find ways to make up for any loss of natural capital.

The non-governmental activist could have made a different policy argument that did not depend on the status of minke stocks and therefore would have rendered our factual disagreement irrelevant: whales are intelligent (or at least sentient) beings, whose killing is wrong. If he had made this argument, then our disagreement would have been about values, not facts: should our goal be the conservation of whale stocks, or the preservation and protection of individual whales?

Often, it may not be clear whether an environmental dispute is really about facts or values. When an environmentalist argues that whale

populations are too low to support whaling or that continued economic growth is unsustainable—or, conversely, when a climate skeptic argues that global warming is a myth—are these factual disputes, or are they value judgments masquerading as factual ones? Are people's views based on an objective assessment of the science or on value judgments about the appropriate balance between economic growth and environmental sustainability, the morality of current lifestyles, and the appropriate role of government?

After failing to convince me with a policy argument, the door-to-door solicitor switched to a legal argument: Norwegian whaling is wrong because it violates the International Convention for the Regulation of Whaling. This argument does not depend on whether Norwegian whaling makes sense ecologically or is morally justified. Regardless, it is illegal. In essence, he was saying to me, even if you think that minke whales may be safely whaled, *the law* imposes certain requirements, which Norway is obliged to obey. The argument turns on what those requirements are and on whether Norway has in fact met them. It turns, that is, on legal issues.

At first glance, the legal issues seem straightforward: Norway has accepted a convention regulating whaling, and therefore it must comply with the requirements of that convention. In 1982, the International Whaling Commission (IWC) adopted a decision by a vote of 25 to 7, with 5 abstentions, imposing a moratorium on commercial whaling in order to provide time for a comprehensive scientific assessment of whale stocks. Under the terms of the Convention, such decisions are legally binding. The Convention, however, provides that states may opt out of decisions with which they disagree by filing a written objection within 90 days. Norway had done so in this case—hence my conclusion that Norway is not legally bound by the moratorium decision.

Legal matters are rarely so simple, however. Even in this case, where the legal rules are clear, my interlocutor might have offered some response. In addition to treaty law, most scholars agree that international law includes both customary norms and general principles of law. Perhaps one of these types of law forbids Norwegian whaling. For example, some legal scholars have asserted that whales have an emerging right to life as a matter of customary international law;<sup>3</sup> if so, this customary obligation not to kill whales may bind Norway independent of the Whaling Convention. Alternatively, my interlocutor might have argued that the status of whale stocks is uncertain and that the so-called precautionary principle requires states not to act when scientific uncertainty exists. Or he might have argued that, after its initial objection, Norway implicitly accepted



the IWC moratorium decision through its actions from 1987 to 1993, when it ceased whaling. These arguments, though in my view weak, illustrate the potential for disputes about the content of international environmental law.

### Three Perspectives on International Environmental Law

The whaling case is, of course, only one of many international environmental problems that we will consider in this book. Global warming, depletion of the stratospheric ozone layer, loss of biological diversity, pollution of coastal waters, nuclear accidents, persistent organic pollutants, acid rain—the litany is by now familiar.<sup>4</sup> Consider the following:

- Atmospheric concentrations of carbon dioxide are now one-third higher than in preindustrial times and are higher than at any time in hundreds of thousands of years.<sup>5</sup>
- The rate of known species extinctions in the past century is roughly 50 to 500 times higher than the background extinction rate calculated from the fossil record, and possibly as much as 1,000 times higher.<sup>6</sup>
- Each year humans remove about 85 million metric tons of fish from the oceans, and 75 percent of the world's fisheries are fished to capacity or overfished.<sup>7</sup>
- Approximately 60 percent of the Earth's ecosystem services are being degraded or used unsustainably.<sup>8</sup> Since 1990, 6 million hectares of primary forests have been lost or modified each year.<sup>9</sup> A third of the world's forests and half of the wetlands have disappeared as a result of human activities.
- In the last several decades, 20 percent of the world's known coral reefs have been destroyed, and an additional 20 percent degraded.<sup>10</sup>
- Each year, about 5–6 billion pounds of pesticides are applied, more than 1 billion pounds in the United States alone.<sup>11</sup>
- Globally, 1.3 billion people live in urban areas that do not meet World Health Organization standards for particulate matter, and each year more than 2 million die prematurely as a result of air pollution.<sup>12</sup>
- Global water use has doubled in the past forty years. Today, humans use between 40 and 50 percent of all available freshwater runoff, and water scarcity affects roughly 1 to 2 billion people worldwide.<sup>13</sup>

- More than 1 billion people lack access to clean drinking water, and more than 2.5 billion lack basic sanitation, contributing to the death of 1.5 million children under the age of five from diarrhea each year.<sup>14</sup>

... The list could go on and on.

What are the causes of these problems? What can we do to solve them? And what role can law play in doing so? These are the fundamental questions of international environmental law. In addressing them, I will employ three perspectives—what I will refer to as the doctrinal, the policy, and the explanatory approaches to international environmental law.<sup>15</sup>

### *The Doctrinal Approach*

The most common perspective for lawyers is the doctrinal approach, illustrated by the legal analysis earlier as to whether Norway violated international law by resuming commercial whaling. Lawyers ordinarily employ this approach in their day-to-day activities. They attempt to determine what the legal norms are and how those norms apply to particular situations. This book will discuss many of these issues of legal doctrine, describing what international environmental law has to say about trans-boundary pollution, pollution of the global commons, and conservation of natural resources.

How does one ascertain the rules of international environmental law? Anyone with even a modicum of legal training has more or less conscious knowledge of how to do so for domestic law. An important part of legal education is teaching students how to determine the relevant legal rules and apply them to particular cases—how to read cases and statutes and to reason from one case to another. This is perhaps the most important function of the first year of law school: namely, to teach students to “think like a lawyer.”

The task is more difficult, however, for international law, whose basic sources are both unfamiliar and contested. Judicial decisions are few and far between and, in theory, lack the force of precedent. There is no legislature to enact statutes, and no administrative agency to adopt regulations. Thus, at the outset, it is necessary to spend some time examining the sources of international environmental norms. Only then will we have the tools to determine whether a particular norm—say, the whale’s right to life—has achieved the status of international law.