COMPARATIVE ENVIRONMENTAL POLITICS

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COMPARATIVE ENVIRONMENTAL POLITICS

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To Jenifer Huang and Anne-Marie, and to our parents

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CHAPTER 1. INTRODUCTION

1. THE NATURE OF THE SUBJECT

1.1 Crises and Hope

On the night of December 2, 1984 a chemical plant owned by the US-based multinational corporation Union Carbide spewed approximately 27 tons of deadly methyl isocynate gas into the air around Bhopal, India. An estimated 500,000 people were exposed; officially 15,000 deaths have been attributed directly to exposure, with thousands of others suffering long-term damage to their health.[1] Local flora and fauna were seriously damaged.

On March 23, 1989 the Exxon Valdez received its cargo at the terminus of the 800-mile Trans-Alaska Pipeline in the port of Valdez, on Alaska's Prince William Sound. A little past midnight on March 24, the tanker ran aground on Bligh Reef, releasing 10.8 million gallons of Alaskan crude oil into the icy waters and rocky shoreline of the sound.[2] Fragile marine habitat was polluted and untold numbers of marine mammals, fish and sea birds were killed.

On October 16, 1989 municipal authorities and the federal Environment Minister declared an air pollution emergency for Mexico City. Ozone levels had reached three times the maximum deemed acceptable by the World Health Organization. One third of the city's motor vehicles were ordered off the streets; factories were mandated to cut production to 30 percent of normal; schoolchildren were forbidden to play outdoors; the elderly and people with respiratory ailments were advised to stay indoors and avoid physical activity.[3]

These three events, part of a seemingly relentless litany of bad environmental news accumulating over the last three or more decades, can easily lead to despair and disillusionment. But what do they actually mean for the health of the earth and its inhabitants? When the political implications and reactions to incidents like these are examined the picture that emerges is more complex, and possibly more hopeful, than a mere linear dissent into impending doom.

Most environmental disasters, despite their localized effects, result from complex mixtures of global, national and local factors, and therefore can be affected by a wide range of governmental and non-governmental actors at

several levels of governance simultaneously. Incidents like the ones described above elicit broad responses, including new government policies at the local and national levels, intensified activities by local and international non-governmental organizations, and new corporate policies and strategies. But the types and effectiveness of responses seem to vary considerably from incident to incident and country to country.

In Bhopal, a new agency was established by the state of Madhya Pradesh for the exclusive purpose of dealing with the aftermath of the tragedy, administering new state and federal regulations, and coordinating the relief efforts of state, federal and non-governmental agencies. Litigation led to multi-million dollar settlements. Union Carbide paid nearly US$500 million to the Government of India. But the actual indemnification of victims remains inadequate and incomplete, and victims continue their often frustrating efforts to find remedy through the U.S. and Indian legal systems.[4]

In Alaska, Exxon faced criminal charges and civil suits, eventually paying US$25 million in indemnification to the State of Alaska, and providing US$900 million for habitat restoration. The US Congress passed the 1990 Oil Pollution Act applying new regulations to the design and operation of oil tankers, the state passed new oil spill legislation, and state and federal governments established the Exxon Valdez Oil Spill Trusteeship Council to administer the restoration funds.[5]

In Mexico City some progress had been made toward mitigating the polluting effects of choking automobile traffic and industrial activity in the valley. The federal government pledged US$13.3 million for pollution reduction programs between 1996 and 2000; new federal regulations, tax incentives and subsidies promoted cleaner, more fuel efficient vehicles;[6] and the mayor of Mexico City proposed changes to the city's mass transit and road systems aimed at improving traffic flows and reducing the use of private passenger cars and small buses. In 2002, the Global Environment Facility (through the World Bank) granted US$6.125 million to help improve Mexico City's air quality.[7] Nevertheless, Mexico City remains one of the most polluted urban environments in the world.

These three incidents have their unique elements, but they are also comparable. Each one has generated intensive negative publicity, has raised awareness of the pervasiveness of environmental problems, and has led to outpourings of aid, sympathy, indignation and defensiveness. Each disaster led to litigation, the promulgation of new policies, and the creation of new institutions. But the effectiveness of the responses has varied greatly. So how do we understand the similarities in the types and quality of the responses? Is it the nature of the environmental problems—air-borne vs. marine pollution? Or is it a function of the socio-political differences of the three countries—levels of development, institutional structures and capacity—which best explain the variability?

While we cannot hope to provide definitive answers to these questions, as political scientists we proceed from the assumption that much can be learned through the application of the existing tools of comparative political analysis. Two of the incidents occurred in developing countries (one a parliamentary democracy, the other a democratizing presidential system), and one occurred in a highly developed presidential democracy. All three countries are federal systems, with multiple layers of environmental regulation, although sub-national government seems to be better institutionalized and more effective in the United States. Only one of the incidents occurred within the sovereign territory of a country with an effective federal environmental protection agency and highly transparent policy and judicial processes. None of the three nation-states involved has a strong "green" political party. And the affected communities in all three cases remain dissatisfied with the outcomes to varying degrees. What can we make of these observations? Is there a systematic relationship between them (or any other political, social, cultural or economic factors) and the responses to environmental crises by nation-states? To answer these questions a more systematic analysis of the attendant political processes is needed. Only then can we suggest whether hope or despair is a more appropriate reaction.

1.2 Global Environmental Issues

Since the 1960s, environmental issues have entered the agendas of most nation-states. Pollution of land, air, and water have endangered ecosystems and public health, and called for a governmental response. Problems of water scarcity and depletion of other critical natural resources, such as forest and agricultural land, elevated the salience of environmental issues, as did the incessant accumulation of garbage. These issues introduced new sets of problems to the political arena and brought new sources of demands to bear on governments. In the 1970s and 1980s governments, especially those of the economically developed countries (EDCs), created new institutions, such as environmental protection bureaus, to resolve environmental problems. By the late 1980s, such institutions were nearly universal. Around the same time environmental movements were becoming more active and articulate in their pursuit of policy goals, and political parties devoted to environmental issues and environmentalist perspectives were forming and beginning to contest elections.

Although the global nature of environmental problems was acknowledged at the 1972 United Nations Conference on the Human Environment, until the 1980s, environmental problems were thought to be susceptible to national solution, because they appeared to occur primarily within the territorial confines of states and could be addressed with existing forms of administration. To a certain extent the reliance on national solutions

was a matter of making a virtue out of necessity as environmental problems were not seen as urgent enough to warrant nation-states relinquishing their sovereignty in search of solutions. Where cooperation among states did exist it was carried out within the context of the cold war. For the great powers, resource and development issues were largely connected to national security considerations, and the environment took a back seat. Since that time, however, a series of environmental issues with global implications has drawn the attention of scientists, policy-makers, the media, and the mass public:

- Climate warming, caused by natural factors as well as the dramatic increase in greenhouse gas emissions since the industrial revolution;
- Biological diversity loss, caused by pressures of logging, agriculture, housing, and commercial development on the critical habitat of endangered and threatened species;
- Deforestation, particularly of tropical forests, as a result of increased and unsustainable logging (both legal and illegal);
- Desertification, due to natural erosion and drought as well as deforestation and agricultural/commercial development in areas with marginal soils;
- Trans-boundary air pollution, including acid rain and persistent organic pollutants (POPs), caused largely by emissions from industrial sites; and
- Pollution of the world's oceans, and depletion of ocean resources, especially fisheries.

The development of global environmental issues and prognoses of impending environmental disasters have had two effects. First, they have energized attempts to create mechanisms of environmental governance at the international level, and the past two decades have witnessed a virtual explosion in the number of international environmental conferences and conventions to mitigate environmental problems. Second, the fact that each of these global environmental issues has domestic as well as foreign origins, and that nation-states claim sovereignty and control over domestic issues, has directed the search for solutions to individual countries.

1.3 Comparative Environmental Politics

Comparative politics is a sub-field of political science, which examines primarily the national (and sub-national) structures of countries, their political processes and values. Scholars in this sub-field may compare one country to a model or pattern; they may compare a small number of countries, either with different or similar attributes[8]; or they may compare a large number of nations, perhaps all, which implies the use of quantitative

methods of analysis.[9] Whatever set of countries is examined, the objective of comparative politics is to understand and explain the outputs and outcomes of state behavior (for example, degree of civil liberties protection or amount of schooling delivered). The comparison process tells us whether similar policy outcomes are the product of similar or different structural and behavioral arrangements within nation-states, and whether the same kinds of power arrangements produce similar or different results.

Comparative *environmental* politics focuses on national and sub-national differences and similarities in environmental policy and environmental outcomes, and attempts to explain their origin. It is thus a relatively specialized subset of national policies (and influencing variables) concerning the totality of the physical conditions in which the nation-state and its people live. Unlike most other policy fields, comparative environmental politics is particularly reliant upon knowledge produced in the biological and other natural sciences concerning ecosystem, plant, and animal changes. But similar to other policy areas (for example, educational, economic, and health policy) environmental policy debates tend to politicize scientific data, research and disagreements. In other words, comparative environmental politics concerns not only the interplay of competing interests in articulating and solving environmental problems, but the production and use of scientific knowledge to be applied to policy decisions and institutional design.

2. THE RELEVANCE OF COMPARATIVE ENVIRONMENTAL POLITICS

As has been pointed out frequently, environmental problems tend to be global and transboundary by nature. As such, they challenge the capacity of nation-states to make and implement effective policy. Environmental issues and environmental problem solving have figured prominently in discussions of globalization, where they are frequently cited as factors in the declining relevancy of nation-states, assaults on sovereignty, and the rising importance of transnational governmental, non-governmental and commercial actors. For political scientists, debates among globalization scholars about the relevance of the nation-state in international politics are also debates about the relevance of comparative political analysis for understanding the world.

Globalization clearly challenges old assumptions about an international system of self-interested, self-motivated, and largely self-contained states. International relations scholars identify several important changes under the rubric of globalization: increasing international trade and investment; declining numbers of wars between states (and increasing incidents of state-less terrorism, intra-state and inter-communal violence); technologically driven explosions in transportation and communication; growing international political networks; standardization of beliefs about political and economic

systems (i.e., a global preference for democracy and free markets); increased importance for international organizations such as the United Nations and World Bank, and treaty organization such as the North American Free Trade Agreement and the World Trade Organization; regional integration, especially the European Union; the awesome power of private transnational actors (including multi-national corporations and non-governmental organizations); and the homogenization of popular culture in what might be called the jeans, tee-shirt, running shoes, English-language, and hip-hop phenomenon.[10]

Debates about the effects of globalization on states are taking place on two levels. First, there is the debate about sovereignty. International relations scholars disagree about the present and future of the sovereign nation-state. James N. Rosenau argues:

> The very notion of 'international relations' seems obsolete in the face of an apparent trend in which more and more of the interactions that sustain world politics unfold without the direct involvement of nations or states.[11]

Steven D. Krasner, on the other hand, declares that "the most important impact of economic globalization and transnational norms will be to alter the scope of state authority rather than to generate some fundamentally new way to organize political life."[12]

Neither side is completely convincing. As Krasner also points out, sovereignty has never been as powerful or absolute a factor in international relations as its proponents would like or its critics fear. And a state's sovereignty tends to vary positively with its level of development. Powerful, wealthy states with capable institutions are more sovereign than weak, poor and politically unstable states. This observation in itself points out the value of broad, comparative political analysis for understanding the effects of globalization.

Second, there is the debate about domestic and international influences on policy making. Globalization has taken the old "levels of analysis" controversy in international relations theory and stood it on its head.[13] Scholars now argue, not only over the relative importance of international and domestic determinants of foreign policy but of domestic policy as well. For example, are changes in the enforcement practices of the U.S. Environmental Protection Agency under the George W. Bush administration a response to competitive pressures from a globalizing economy or political pressures from domestic interest groups?[14]

Given the preoccupation of scholars, policy-makers and activists with globalization, it is not surprising that the bulk of the political science literature on world environmental politics comes from the sub-fields of international relations and international political economy. But what becomes clear in

perusing this literature is the need for a better understanding of the roles of domestic social forces and the political structures of nation-states. In their recent edited volume, *the Global Environment*, Axelrod, Downie, and Vig devote the first two sections to international institutions and global policy questions, but reserve a third and final section for analyzing global policies on sustainable development at the national and EU-levels because,

> the concept of sustainable development is quite broad and has quite different meanings when translated into different cultures and languages. . . Some nations such as New Zealand and the Netherlands have adopted far-reaching sustainable development plans and programs, whereas others have dealt with sustainability issues in a piecemeal and ad hoc fashion, if at all.[15]

To know why, we have to know more about these states, their societies, histories and cultures. Therefore, in this book we take the position that nation-states and their governments still matter for three reasons. First, they are the locus of decision-making for a wide range of economic, social, cultural and resource management policies that affect the global environment, National governments, then, are the prime targets of local, national and transnational environmental activism. Second, only national governments can decide whether to join or not join, cooperate or not cooperate with international environmental agreements, treaties and protocols. And finally, many of the differences we find among the environmental policies and situations of nation-states depend on domestic political variables, including ideology, regime type, political culture, state-society relations, and scientific and institutional capacity.

A comparative approach to policy illuminates well the different stances adopted by nation-states regarding global environmental problems such as climate change. Take, for example, two of the leading industrial powers of the world—the United States and Germany. Scientists in both nations have confirmed the dramatic increase in greenhouse gas emissions through the twentieth and into the twenty-first centuries. With the exception of a minority of "greenhouse skeptics," climate scientists link the rise of temperatures, particularly evident in polar regions, to the increase of greenhouse gas emissions. They do not attribute it primarily to natural climate cycles or other factors.

One might expect the two nations to have developed similar policies toward the mitigation of climate warming, given their comparable degree of modernization and level of economic development. Indeed, both joined the Framework Convention on Climate Change and participated actively in negotiations leading to the 1997 Kyoto Protocol. However, Germany ratified the protocol and quickly proceeded to implement its provisions, while

President Clinton, whose administration negotiated the treaty, did not submit it to the U.S. Senate for ratification. Then, within one year of his inauguration to the presidency, George W. Bush removed the United States from the influence of the protocol.

Notwithstanding similar economic and social systems, it was differences in political institutions and processes that explained the divergent environmental outcomes. Germany has one of the world's largest and most active Green parties, and it became an attractive coalition target for the Social Democrats when they attained the largest number of seats in the Bundestag elections of 1998. The price of Green support for a Social Democratic government was two ministries—Environment and Foreign Affairs—as well as policy stances in accord with several important planks of the Green platform (reduction of greenhouse gases and even eco-taxes).

Differences in electoral institutions and degree of concentration in decision-making authority created less auspicious conditions for change in the United States. The American single-member district, plurality election system discourages formation and electoral success of third parties such as the Greens. At its contemporary high point in the 2000 presidential election, Green Party candidate Ralph Nader won no state's electoral votes and only 2.7 percent of the popular vote. Although in the estimation of Democratic partisans, this was sufficient to spoil the chances of Democratic presidential candidate Al Gore, it was far from enough support to influence national policy. Moreover, the U.S. separation-of-powers system that divides national power among the presidency, Congress, and the courts would have made it improbable for Al Gore, had he won the Electoral College vote, to have won a two-thirds majority vote for the Kyoto Protocol in the U.S. Senate, which was evenly divided after the 2000 election.

Differences in political organizations and state-society relationships also help explain the differences between climate change positions of Germany and the United States. Germany produces little of its own energy needs, and the oil and gas industry plays a relatively weak role in national politics. In the German corporatist system economic interests may more easily influence state policy than in the United States (if the executive and legislative branches are unified). Yet interests of single sectors, such as the oil and gas industry, are considerably weaker than in pluralist systems like the United States. There, well-financed political action committees (PACs) of major corporations may influence elections of members of Congress and presidents through campaign contributions and lobbying activities, particularly if they form a broad coalition such as the Climate Change Coalition, which was opposed to U.S. ratification of the Kyoto Protocol. This influence extended to media reporting on the climate change debate, which largely echoed the coalition's skeptical position on the linkage between carbon dioxide emissions and climate warming.

Thus, the analysis possible through comparative politics explains the variation we see in national positions on global climate change. It enlarges our ability to understand complex events and somewhat confusing processes.

3. UNIT OF ANALYSIS: THE NATION-STATE

Although we will discuss differences among and between countries because of their territorial distribution of power (for instance whether they are unitary or federal, and what this implies for the behavior of sub-national governments), our primary focus of interest is the nation-state. Nearly 360 years after the Treaty of Westphalia acknowledged state sovereignty and equality as the key principles of international relations, nation-states remain the primary actors in world politics. In 2006, there are 192 nation-states, and they express great variation in size of territory and population, military power, culture, society, and wealth—as well as in political system characteristics.

A small number of states are territorially vast and cover many climate zones and ecosystem types, such as Russia, Canada, China, and the United States. At the opposite pole are the world's micro-states such as Vanuatu, Palau, Monaco, which have less land than the average European city or Indian village. A few states have huge populations; China, with 1.3 billion and India, with 1 billion people, together comprise more than one-third of the world's population. Other states such as Kiribati have fewer residents than an English county.

One state in the early twenty-first century is able to project its military power globally and qualifies as a super-power (the United States). A small number of states have military forces sufficiently capable of exercising power regionally, for example, Japan, China, Britain, France, and Russia. In addition, other states than these have also developed nuclear weapons which make them credible threats in regional arenas, for instance North Korea, India, Pakistan, and possibly Iran. Most states in sub-Saharan Africa and many Asian, Middle Eastern, and Latin American states lack the military means to defend national interests.

Nation-states also vary enormously in their degree of cultural and social integration. A small number are the heirs (or joint legates) to great and long-lasting cultures, such as the Chinese, Japanese, Indian, Islamic, Western, and Russian Orthodox civilizations. Yet the fault lines across these civilizations often have produced international conflict. Most states, however, contain more than one "nation" in the sense of a community of persons sharing values and envisioning a common future. They may be divided by race, ethnicity, language, or religion, and both cultural and social divisions inhibit the nation's ability to address common problems. Nigeria, for example, struggles to establish a unified national identity among its various tribal, regional and religious groups.

An extremely conspicuous difference among nation-states is their level of economic development. A minority of the world's states are economically developed countries (EDCs) or rich nations. One standard for economic development is a per capita Gross Domestic Product (GDP) of $10,000, and by this definition over 40 states have entered the rich nations' club. With few exceptions, these nations are located in the northern hemisphere; and often for this reason collectively they are referred to as the "North." The other nations mostly are located in equatorial zones or in the southern hemisphere (the South); typically they are loosely labeled "lesser developed countries" (LDCs) or just "developing countries." The label is inexact as the economies of some are developing quite rapidly (for example, the "newly-industrialized countries" (NICs), including South Korea, Taiwan, Singapore, Hong Kong, Malaysia, Thailand, and Brazil, some of which are now considered economically developed). A much larger number of countries lie at the bottom of the heap; they are considered the "poorest of the poor," because their per capita GDP is less than $400 or one dollar a day. Some 1.1 billion people live in such countries.

We pay attention to the economic development levels of countries because often they help us explain cross-national differences in environmental policies and outcomes. The rich countries, which in the past and presently have experienced rapid industrial development, have also disproportionately exploited the world's resources and created much of the global environmental problems. Yet they have the economic means to mitigate pollution of land, air, and water, and to adapt to rapid environmental change. Poor countries, on the other hand, are less culpable for the emerging global environmental crises such as climate warming. They are also less able, because of limited economic development, to address problems of pollution and adapt to environmental change.

Although the focus of this study is the nation-state, we consider at length one super-state, the European Union (EU). In 2006, the EU contains 25 member states. EU member states have ceded some of their sovereignty in the environmental policy area, but they remain solely responsible for implementation. In general, the EU resembles a political system that is "multilevel, horizontally complex (and) evolving."[16]

4. A POLITICAL APPROACH

Table 1.1 lists the nation-states used as examples in various parts of this book. Following the World Bank classification scheme they are divided, economically, by per capita national income. They are further categorized by regime type and core characteristics of their political and economic systems. The dominant type of interest group representation is noted as a rough indicator of state-society relations. These identifiers are typical of comparative

Table 1.1. Selected nation-states – political and economic characteristics

Nation-state	Regime type*	System type†	Territorial distribution‡	Interest groups§	ESI score/rank**
High income (US$10,066 and above per capita national income in 2004)					
Australia	Democratic	Parliamentary	Federal	Pluralist	61.0/13
Brunei	Authoritarian	n/a	Unitary	n/a	n/a
Canada	Democratic	Parliamentary	Federal	Pluralist	64.4/6
France	Democratic	Semi-pres.	Unitary	Mixed	55.2/36
Germany	Democratic	Parliamentary	Federal	Corporatist	56.9/31
Gr. Britain	Democratic	Parliamentary	Unitary	Mixed	50.2/65
Greece	Democratic	Parliamentary	Unitary	Corporatist	50.1/67
Italy	Democratic	Parliamentary	Unitary	Corporatist	50.1/69
Japan	Democratic	Parliamentary	Unitary	Mixed	57.3/30
Norway	Democratic	Parliamentary	Unitary	Corporatist	73.4/2
Monaco	Authoritarian	Parliamentary	Unitary	n/a	n/a
Netherlands	Democratic	Parliamentary	Unitary	Corporatist	53.7/40
Singapore	Authoritarian	Parliamentary	Unitary	n/a	41.84/na
S. Korea	Democratic	Presidential	Unitary	Mixed	43.0/122
Spain	Democratic	Parliamentary	Federal	Corporatist	48.8/76
Sweden	Democratic	Parliamentary	Unitary	Corporatist	71.7/4
Taiwan	Democratic	Semi-pres.	Unitary	Mixed	32.7/145
U.S.	Democratic	Presidential	Federal	Pluralist	52.9/45

* "Transitional" refers to democratizing regimes where the outcomes remain uncertain. Otherwise we use a simple dichotomy of democratic and authoritarian, the latter including civilian, military, monarchical and theocratic regimes.

† "Semi-pres." (semi-presidential) systems elect parliaments and powerful heads of state.

‡ Refers to the distribution of power between national government and the geographical subdivisions of the nation-state (e.g. states or provinces).

§ "Pluralist" refers to states with few formal institutional relationships between interest groups and state agencies or political parties. "Corporatist" refers to all types of formal linkages between organized groups and state agencies or political parties, including "neo-corporatist" and "party corporatist." "Mixed" connotes significant formal linkages between states and/or parties for some groups and issue areas, and the existence of influential unaffiliated groups.

** "The Environmental Sustainability Index (ESI) benchmarks the ability of nations to protect the environment over the next several decades. It does so by integrating 76 data sets—tracking natural resource endowments, past and present pollution levels, environmental management efforts, and the capacity of a society to improve its environmental performance—into 21 indicators of environmental sustainability. These indicators permit comparison across a range of issues that fall into the following broad categories:

- Environmental Systems
- Reducing Environmental Stresses
- Reducing Human Vulnerability to Environmental Stresses
- Societal and Institutional Capacity to Respond to Environmental Challenges
- Global Stewardship"

[Yale Center for Environmental Law and Policy, Yale University, and Center for International Earth Science Information Network, Columbia University. *2005 Environmental Sustainability Index: Benchmarking Environmental Stewardship*. Available at www.yale.edu/esi, 1.]