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Anatomy of Failure

"But the Emperor has on nothing at all!" cried a little child.
Hans Christian Andersen

If our first attempt at global environmental governance has yielded so little, it is important to ask why. Our second attempt may be our last chance to get it right before we reap an appalling deterioration of our natural assets, so we should learn quickly from past mistakes.

Here is the way I would characterize the response to global threats to date: a highly threatening disease is attacking our patient, Mother Earth, and, to cure it, we have brought medicine that is pitifully weak. This is not to say that the medicine has done nothing—it helped a bit—but it also compounded the problem by making some people think, mistakenly, that an effective response was being administered.

Let us explore the disease first and then turn to the medicine. Three factors make the disease—global environmental deterioration—extraordinarily difficult to reverse: it is driven by powerful underlying forces; it requires far-reaching international responses; and the political base

to support these measures tends to be weak and scattered. These are all inherent problems stemming from the very nature of most global-scale environmental challenges.

The underlying drivers of deterioration were mentioned briefly in chapter 1; they merit detailed consideration and are therefore the subject of chapters 6 and 7. The point to note here is that these forces—notably the steady expansion of human populations, the routine deployment of inappropriate technologies, the near universal aspiration for affluence and high levels of consumption, and the widespread unwillingness to correct the failures of the unaided market—are indeed powerful and will not yield to half-measures.

The second factor making the global agenda inherently difficult is the far-reaching, complex responses required. Consider some of the measures needed to address global climate change: new energy policies, new transportation strategies, changes in agriculture and the management of forests around the world, and so on. Consumers willingly abandoned CFC-based aerosol sprays, but will we so easily abandon our profligate energy habits? Moreover, the global-scale issues demand international cooperation on a scale seldom achieved. Some of the required actions will intrude on domestic affairs and challenge sovereignty much as the international trade regime and the WTO have. Thus far, governments have been willing to concede much in the area of sovereign autonomy to achieve economic expansion but not to protect the environment. The asymmetry between economic initiative and environmental neglect surfaces here and elsewhere.

The final inherent difficulty of the global agenda is difficult politics. One way to bring out the political problem of grappling with the global-scale challenges is to stress the contrasts between the global issues that emerged around 1980 and the predominantly domestic ones that led to the first Earth Day in 1970, as I did in chapter 4. Consider the following contrasts in the way the issues tend to be seen from the developed world, somewhat overstated to make the point:

1970 Domestic Agenda

understandable scientifically
highly visible impacts
current problem
us/here
acute problem

1980 Global Agenda

complex, difficult to understand
remote or difficult to perceive impacts
future problem
them/there
chronic problem

These contrasts do not apply equally to all global-scale concerns—ozone depletion raised the specter of skin cancer—but they do underscore the technical complexity of the global-scale issues and the political vulnerability of efforts mounted to respond. Ecologist Simon Levin puts the problem this way: “The familiar acronym NIMBY (‘not in my back yard’) expresses the principle that people can best be motivated to take action when the problems and rewards hit closest to home. The nature of the process of addressing local issues makes for tighter *feedback loops*, a key element in maintaining resiliency in any system.

“Increasingly, however, we are being challenged by a new class of problems, including global climate change and biodiversity loss, in which the feedback loops are weaker and less specific. Change is slower, and signals less clear (hence the delay in recognizing them).”¹

Interestingly, this picture may be about to change somewhat. Global warming is now bringing a series of highly visible and unwanted consequences. As these mount, public perceptions of the threat could shift.

Now, the medicine. To confront such difficult challenges, what did we do? Instead of acting with a seriousness commensurate with the threats, the international community framed and implemented an inadequate, flawed response—weak medicine for a very ill patient. First, it opted for international environmental law as the primary means of attack while badly neglecting measures that would more directly address the underlying drivers of deterioration. And, second, having selected international environmental law as the chosen instrument, it never gave that approach a chance to succeed. International agreements are essential in confronting global environmental challenges, but rarely

will they solve major problems by themselves, and even less rarely will they succeed if their requirements are not clear and meaningful.

Why was the environmental law approach adopted so thoroughly and quickly? Why did the international community slide easily into negotiating conventions and protocols? There were, first of all, plenty of precedents. The legal-regulatory approach was the approach most often taken domestically with environmental protection. And it was taken internationally in the regulation of trade, aviation, and other areas. So the model was readily available. It is used so frequently because it seems a sensible way to frame agreements and monitor compliance. Also, words and even regulation are cheap, at least for governments. The principal alternatives to regulation are spending and taxing, both politically difficult. For many governments, their comfort level with these approaches was also improved by two considerations: first, the knowledge that in international negotiations the legal principle of state sovereignty would ensure that they could protect their interests, and, second, the fact that in developing international law, environmental or otherwise, the public and public interest groups have very limited opportunities to participate. Another factor not to be discounted, lawyers are hustlers and, of course, lawyers prefer these legal-policy approaches. Finally, there does seem to have been a failure of imagination. The world fell easily into the treaty-protocol approach without much thinking either about alternatives or about how to make legal regimes succeed.

Heavy reliance on the convention-protocol model—the standard model—got off to a good start with acid rain, successfully flowered in the protection of the ozone layer through the regulation of CFCs and halons, but then fared less well when applied to bigger problems like desertification, biodiversity, and climate change that are much more complicated and deep-rooted socially and economically. Perhaps this is the Peter Principle at work in global environmental governance?

Another significant feature of the international response to the global change agenda is that the responses have followed closely what we can

call the "problem-defined approach." A biodiversity problem led to a biodiversity convention. The challenge of climate change yielded a climate change convention. The real problem may be poverty, weak and corrupt governments, or fossil fuels, or transportation, or chlorine-based organic chemistry, but the conventions were framed to address the surface worry rather than the deeper problems. They did not go after the underlying causes or drivers of deterioration.

Again, one should ask why. I think there were basically three reasons. First, those of us promoting these agreements found it easy to adopt the "problem-defined approach" because that was the approach typically taken in environmental management domestically. For good or ill, we have air pollution laws to address air pollution, and so on with water pollution and all the others. This model was in everyone's mind. Second, by defining the solution in terms of the publicly perceived problem, treaty advocates maximized the chance of ongoing public support. And third, imagine the disaster that would have happened if the solutions had been defined more in terms of underlying drivers and forces. The environmental community in and out of government quickly would have lost control of the process, which would have moved to the agriculture community or the energy industry. Thus, the relatively weak environmental community pursued a defensible strategy to keep control of the process. Better to keep the issue under environmental control on environmental turf, and let the implications for these powerful interests emerge more indirectly.

There are costs associated with this problem-defined approach. Most important, of course, is the fact that we are directly addressing not the real, underlying problems but only the symptoms. Another cost is that we end up with many conventions because there are many problems. This gives rise to coordination problems, limits on participation especially from capacity-short developing countries, and various inefficiencies.

Further, we have accepted, or at least lived with, procedures for reaching global agreements that could not be slower, more cumbersome, and more inclined to weak results. A revealing exercise is to contrast

national legislating, say, in the Congress, with international legislating, say, in climate negotiations.

- In international negotiations, sovereign nations are represented at the table, and sovereignty means that no country is required to accept the will of the majority or be obligated without its consent. Whereas most congressional decisions require agreement by a majority (51 percent), international agreements, to the degree that they are to be effective, must secure the agreement of essentially every country that is important to the outcome (100 percent). Getting such a consensus almost always requires more compromise than securing a simple majority. Although powerful legislators can sometimes block legislation they do not like, that power pales by the power of a country that is essential to the agreement's success simply to walk away.
- Diplomats and other executive branch employees are normally the negotiators in international fora, rarely elected politicians or professional legislators. There is little shared political culture at the international level, and there are few shared political institutions, certainly nothing comparable to political parties, legislative committees, their professional staffs, and opportunities for public participation.
- The interests represented in international negotiations are far more diverse than those represented on the floor of a national legislature; the world is a far more diverse place. However challenging it is for a national politician to represent the various interests within his or her constituency, representing an entire country is a more complex matter. Typically an interplay occurs between the international negotiation process and domestic politics.
- When Congress acts, that is the end of the matter, unless the president decides to veto the legislation. But the negotiators of international legislation rarely have the last word. In the United States, treaties and amendments to them signed by the executive branch must be consented to by two-thirds of the U.S. Senate before they become effective. National legislatures must often approve international

agreements, and unless enough countries ratify the agreement, the treaty does not become effective or, as the phrase goes, it does not enter into force. Even when enough countries ratify the treaty for it to enter into force, they may not be the right countries. Environmental treaties are in force where countries critical to their success have not ratified them. The Senate is a virtual graveyard full of unapproved environmental treaties.² Also, domestic legislation is usually necessary to implement the agreement within the country in question, and that, too, can derail action.

- Although independent U.N. secretariats serve the overall negotiating process internationally, the vast majority of countries rarely have adequate staff. Negotiators are often more or less on their own in a sea of complex issues. The average level of genuine expertise in the negotiations is often low. Compounding this expertise deficit is poor communication between the capital and the on-the-site negotiators. The negotiators' brief or instructions from capitals often turn out to be inadequate.
- The legislative process in Congress is, generally speaking, very open to the public, and public interest groups are present and active. Although this is changing, the negotiation of international agreements tends to be a closed discussion among governments—and one that is distant and opaque to most people. Thus, just as international environmental issues tend to be more remote from people's everyday lives, the process through which these issues are addressed is also remote. A big gap exists between the process and the people.

All these weaknesses make international legislating much more difficult than the normal national legislative process. The weakness of current international environmental treaties should thus come as no surprise. They were forged in cumbersome negotiating processes that give maximum leverage to any country with an interest in protecting the status quo. The United States successfully weakened the Kyoto Protocol, Brazil worked to keep a forest convention at bay, and Japan

and other major fishing countries watered down the international marine fisheries agreement.

Relatedly, the international institutions created in the United Nations to address global environmental issues—the United Nations Environment Programme, ECOSOC's Commission on Sustainable Development, and the secretariats of the various convention bodies—are among the weakest multilateral organizations. UNEP's budget, for example, is quite small—the World Wildlife Fund's and the Nature Conservancy's are many times larger—and its role is partially undermined by the proliferation of independent treaty secretariats outside UNEP.

International negotiating procedures differ radically from both national legislative processes and even more radically from the rule-making processes of independent regulatory agencies. Imagine two ends of a spectrum. At one end we have U.S. regulatory agencies like the Federal Trade Commission and the Food and Drug Administration, which, operating under broad "public interest" mandates from Congress, set rules and norms in their areas. A small group of appointed officials is, in effect, writing laws for the country, subject, to be sure, to congressional oversight and reversal. One could imagine a world environment agency like these federal regulatory agencies. It is a wild idea, you might think, but it anchors one end of the spectrum. The processes we have been examining for regime formation and so on are at the other end of this spectrum. These processes are full of opportunities for delay, indecision, unsatisfactory resolution of issues, and weak results. One interesting step back toward the middle of this spectrum was the inter-governmental decision to allow the Montreal Protocol negotiators to set targets for ozone-depleting substance reductions without nation-by-nation ratification and to do so by a two-thirds vote, thus breaking with consensus decision-making. In other words, the ozone convention Conference of the Parties functions a bit like an international regulatory agency. Several environmental agreements now adopt an approach similar to the Montreal Protocol.

If governments wanted a strong, effective process in the international

environmental area, there are ample models from which to choose. Those governing international air transportation, trade, intellectual property rights, and other subjects offer useful ideas. That a tougher approach is not used to protect the global environment is a conscious decision of governments to stick with a weak international process. Much as states in the United States have not wanted to cede certain issues to the federal level, such as land use controls, nations have not wanted to cede their sovereign control in this area to an international body.

Beyond their shortcomings, the potential success of international environmental law in these areas has been undermined by the unfortunate tendency to neglect the social and political context in which international agreements are arrived at and then implemented. Consider, for example, the conditions within individual countries that would favor treaty success:

- peace and stability, certainly;
- favorable economic conditions and the absence of financial or other economic crises;
- an open, democratic society and an independent, effective media presence;
- a high level of public concern and active NGOs;
- the presence of rule of law and a culture of compliance with international law; and
- the human and institutional capacities in government to participate meaningfully at all stages.

Of course, no one should expect nirvana on all these fronts, but the truth is that we are far from achieving these conditions in much of the world, and, as discussed in chapter 6, the wealthy countries of the OECD are investing only miserly amounts in assisting the developing world in these areas.

Finally, the international community has also dealt poorly with the inevitable political opposition and conflicts that war against effective

agreements. Three political fault lines surface repeatedly in international negotiations on the environment, and we have not been very forceful or creative about closing these gaps.

The environment versus the economy. Here as elsewhere, economic interests are typically pitted against environmental ones. There is often a seamless link between economic interests and the positions governments take in negotiations. An excellent analysis by David Levy and Peter Newell compares corporate approaches to global environmental issues in Europe and the United States. The comparisons are interesting, but their bottom line is that "government negotiating positions in Europe and the United States have tended to track the stances of major industries active on key issues, such that the achievement of global environmental accords is impossible if important economic sectors are unified in opposition.

"Moreover, the effective implementation of international environmental agreements requires the active cooperation of large multinational companies that possess adequate financial, technological, and organizational resources to innovate and commercialize new technologies. . . . [T]hese large companies are the 'street level bureaucrats' on whom policy makers rely, like it or not, for successful implementation."³

Economic pressures can lead to political decisions that undermine even well-crafted treaties. This happened, for example, with the Convention on the Law of the Sea, which created for each coastal country a two-hundred-mile exclusive economic zone designed to overcome open-access fishing on what were once the high seas. In response, rather than protecting their new fishing grounds, governments responded by subsidizing new fishing fleets and neglecting needed regulation. Widespread overfishing has resulted.⁴ The new Stockholm Convention on Persistent Organic Pollutants has been blocked in the United States due primarily to concern with its provisions facilitating the regulation of additional dangerous chemicals beyond the dozen in the original agreement.⁵

The North versus the South. To generalize, the poorer countries of

the global South have perceived the global environmental agenda as an agenda of the wealthy North, and, indeed, international environmental regimes have typically been pushed by the richer countries. The poorer countries have not only given these concerns a lower priority, they have feared that agreement would undermine their growth potential or impose high costs of compliance. For this reason both the Montreal Protocol (protecting the ozone layer) and the Kyoto Protocol (protecting climate) have taken the approach of regulating the industrial countries first.

There have been exceptions where developing countries have taken the lead. They took the initiative in calling for control of hazardous wastes exports from rich to poor, and they were the principal advocates of the Convention to Combat Desertification. But, in general, the developing world often feels more than a little put upon by the many international processes under way and worries that its priorities are not reflected there. Many developing countries are struggling to exist as viable entities and to be heard, and these factors can intensify assertions of sovereignty.

Whenever we have a global challenge with a major South dimension, we should pay special attention to the points made by Anil Agarwal, who for decades was one of India's leading environmental advocates: "The issue of equity has become a very contentious one in environmental diplomacy. Equity is a prerequisite for global agreement, and environmental cooperation can only be possible through solutions that are both equitable and 'ecologically effective.' These negotiations throw up major political challenges for the people of the world. . . . Enhancing sustainability is the ultimate purpose of these negotiations but without an equitable framework, they are unlikely to generate sufficient confidence and willingness to participate across the world."⁶

As Agarwal indicates, we are unlikely to get effective international agreements engaging the South unless the developing countries are dealt with fairly in a way that recognizes their aspirations and special challenges. Doing so will require, among other things, increased development assistance. This was recognized at the Rio Earth Summit, where

commitments were made to roughly double official development assistance to support the summit's ambitious Agenda 21, a compilation of far-sighted policies and goals covering many sectors and issues. Unfortunately for the credibility of the North and much else, development assistance after Rio declined significantly, not increased, dropping more than 15 percent in the 1990s. For this reason (and for others discussed in chapter 7 on the impacts of economic globalization), Agenda 21 was never seriously implemented. Had it been, the possibility of greater international cooperation on the North's treaty agenda would have been enhanced. Agenda 21 is a good example of a compilation of measures that, if fully supported, would have both complemented the treaty processes since Rio and more directly tackled some of the underlying forces leading to today's large-scale environmental challenges. In short, Agenda 21 was just what was needed, and the failure to pursue it is central to understanding the lack of progress over the past decade. Despite the Bush administration's recent increase in U.S. development assistance—an additional five billion dollars a year into the new Millennium Development Account—the United States still remains dead last among OECD countries in development assistance as a percentage of GDP. Worse, on a more sophisticated ranking that takes into account not only aid but also trade, foreign investment, and peacekeeping, the United States is still at the bottom (next-to-last, just ahead of Japan) in the effort it makes to help poor countries.⁷

The United States versus the world. Legal scholar David Hunter has noted that "more than any other country, the United States is responsible for the existing gulf between Rio's rhetoric . . . and the post-Rio environmental reality."⁸ If there is one country that bears most responsibility for the lack of progress on international environmental issues, it is the United States.

Of course it is true, as my Yale colleague Ben Cashore has said, that just because the "environmental coalition" is "winning" today in Europe, that does not mean they will win in the future, just as they have not in the past. And just because the environmental coalition is losing

today in the United States, that does not mean it will continue to lose in the future, any more than it always lost in the past. Unfortunately, the problem for the United States is not this simple.

At the root of America's negative role is what can only be described as a persistent American exceptionalism, at times tinged with arrogance. It appears in many guises, including not feeling it necessary to participate in international treaties. Consider the following. At last check, 192 countries have ratified the Convention on the Rights of the Child. There must be at least 193 countries today, for the United States is not among the 192. Most countries have ratified the Convention on the Elimination of All Forms of Discrimination Against Women, 173 at last count, but the United States has not. Our company in opposing the Land Mine Convention includes Cuba, Democratic People's Republic of Korea, and Libya. We join Libya again in being among the few that have not ratified the Convention on Biological Diversity, and believe it or not, we have not yet ratified the Law of the Sea Treaty. It is well known that the Bush administration has rejected the Kyoto Protocol, but the list of important international environmental treaties not ratified by the United States is long. The list goes on, and the pattern is clear—a pattern of unilateralism and of staying outside the multilateral system unless we need it—à la carte multilateralism.

The Bush administration was in the process of pushing this approach to new heights before 11 September 2001. In January 2001 it announced that it could not support the new treaty establishing an International Criminal Court; in March it abandoned the climate treaty's Kyoto Protocol; in May it said it would pull out of the 1972 Anti-Ballistic Missile treaty; it then threatened to withdraw from international conferences on racism and illegal trafficking in small arms; and in July it rejected a proposed enforcement measure for the Biological Weapons Convention. All of which prompted *The Economist* to note that "after five treaties have been shot down in seven months, it is hard to avoid the suspicion that it is the very idea of multilateral cooperation that Mr. Bush objects to."⁹

As elaborated in chapter 7 on globalization, the United States has

also been a leader in the business of pursuing trade, financial liberalization, and promarket adjustment at the expense of the partnership compact for sustainable development forged at Rio. With "trade, not aid" as their motto, many U.S. policymakers have seen the globalization (market) paradigm as supplanting the need for the Earth Summit's sustainable development (partnership) paradigm.

The Beacon on the Hill is shrouded today. Political philosopher Benjamin Barber, commenting on the U.S. corporate scandals of 2001 and 2002, puts the failure of U.S. leadership on global environmental issues in a larger context: "Business malfeasance is the consequence neither of systemic capitalist contradictions nor private sin, which are endemic to capitalism and, indeed, to humanity. It arises from a failure of the instruments of democracy, which have been weakened by three decades of market fundamentalism, privatization ideology and resentment of government. . . . The corrosive effects of this trend are visible not only on Wall Street. The Bush administration, which favors energy production over energy conservation, has engineered a reversal of a generation of progress on environmentalism that threatens to leave the [hazardous wastes clean-up] Superfund program underfunded, air-quality standards compromised and global warming unchecked. These policies can be traced directly to that proud disdain for the public realm that is common to all market fundamentalists, Republican and Democratic alike. . . . The United States fails to see that the international treaties it won't sign, the criminal court it will not acknowledge and the United Nations system it does not adequately support are all efforts, however compromised, at developing a new global contract to contain the chaos. . . . The ascendant market ideology claims to free us, but it actually robs us of the civic freedom by which we control the social consequences of our private choices."¹⁰

The Environmental Law Institute is a middle-of-the-road organization that serves as our country's principal watering hole for mainstream environmental lawyers. Its president in 2002, William Futrell, was driven, however, to sound an extraordinary alarm: "America's legacy

of robust environmental law and policy is now in serious jeopardy. Anti-government ideologues of the bar and the bench are resurrecting the pre-modern dogmas of radical federalism and unfettered economic liberty to attack not just environmental laws themselves but the constitutional substructure on which those laws are erected. According to some advocates and judges, the Constitution demands massive deregulation, special rights for corporations and developers, and the curtailment of citizens' access to justice. If left unanswered, this reinterpretation of constitutional principles could lead to a judicial dismantling of environmental protection in the United States. . . . These developments in the courtroom are not accidental, but the result of a well-financed effort to reshape the judiciary (as well as the political branches of government) along strict ideological lines. . . . Today, a handful of right-wing foundations provide generous funding for organizations . . . hostile to environmental regulation."¹¹ Those who attack long-settled domestic environmental protections are, of course, even more dead-set against international ones.

In early August 2002, shortly before the World Summit on Sustainable Development at Johannesburg, twenty-five conservative think tanks and other organizations wrote President Bush to "applaud [his] decision not to attend the Summit in person." They continued: "We also strongly support your opposition to signing new international environmental treaties or creating new international environmental organizations at the Johannesburg Summit. In our view, the worst possible outcome at Johannesburg would be taking any steps towards creating a World Environment Organization, as the European Union has suggested. . . . [T]he least important global environmental issue is potential global warming, and we hope that your negotiators at Johannesburg can keep it off the table and out of the spotlight."¹²

In the end, not only was President George W. Bush not among the 104 heads of state in attendance, but the United States fought with considerable success against tough targets and timetables, including helping to defeat the European proposal to set a goal of having 15 percent

of countries' energy provided by renewable sources by 2015. Joining the United States in this opposition were Iraq, Iran, and most of OPEC. The United States also succeeded in blocking an endorsement of the Kyoto Protocol, and the possibility of a favorable review of the World Environment Organization idea was so remote in this setting that it hardly surfaced.¹³

I often ask myself why more American conservatives do not more actively seek to conserve America. Part of the answer, I suspect, lies in the point made by Benjamin Barber. Environmental challenges threaten the ascendant promarket, antigovernment ideology. They require major governmental responses, including action at the international level. They require "interference" with the market to ensure that social and environmental goals are served. And they require rethinking the utopian materialism that puts a premium only on unlimited economic expansion.

To escape this dilemma many people opt for denial: environmental challenges, they must conclude, are not that serious and are routinely exaggerated by environmental advocates. A group of environmental Dr. Panglosses—from Julian Simon in the early 1980s down to today's Bjorn Lomborg—have intentionally or unintentionally lent a semblance of credibility to this denial, but it is still a condition of denial, of not facing reality. Although there are certainly exaggerations and also honest mistakes in environmental advocacy, national academies of science, Nobel laureates, intergovernmental scientific panels, and countless others have for two decades repeatedly affirmed the reality and seriousness of global-scale environmental challenges.

Bjorn Lomborg's efforts to make the case that "things are getting better" have recently attracted wide attention. In his book *The Skeptical Environmentalist*, published in 2001, the Danish statistician notes that "we are all familiar with the Litany: the environment is in poor shape here on Earth. . . . There is just one problem: it does not seem to be backed up by the available evidence."¹⁴ Lomborg then addresses many of the environmental issues and finds that the "real state of the world" is on the whole very positive.

Legal scholar Douglas Kysar has offered a sober assessment of Lomborg's claims: "What Lomborg and other environmental optimists fail to acknowledge is that . . . with its tap at the bottom, a keg simultaneously can be flowing steadily and nearing empty. Lomborg's approach to environmental policy, which focuses upon measuring flows of material inputs to drive production, may not perceive an end to the total stock of such inputs nor, consequently, an end to the economic party. The environmental pessimist's contention in contrast is that nature, like the keg, has a finite capacity that limits human development in ways both far more varied and subtle than revealed by Lomborg's study. This debate, of course, is an empirical one, and *The Skeptical Environmentalist* does little to resolve it, despite the promise to deliver a comprehensive scientific assessment of the human condition. Rather, what Lomborg offers is simply a particular view as to how humanity should govern itself in the face of uncertainty (namely, do nothing, for regulatory cures are generally worse than environmental disease). Good for him. He does not, however, offer a true description of the 'real state of the world,' any more than environmentalists have offered a false one. Put differently, Lomborg provides his reader with heavily-footnoted, yet eminently familiar political argument, *not* scientific description."¹⁵

Water expert Peter Gleick has reached much the same conclusion. In a recent review of *The Skeptical Environmentalist*, Gleick concludes that "Lomborg does precisely what he criticizes the environmental community for doing: He misinterprets the scientific literature, simplifies and generalizes about environmental problems, misunderstands environmental science, misuses data, misinterprets the work of others, and draws conclusions based on hidden value judgments."¹⁶

On water supply issues, Gleick notes that Lomborg's assessment is "fairly simple, half true and wholly deceptive." He characterizes Lomborg's assessment that "basically we have enough water" as particularly dangerous because it is "basically true but completely misleading. . . . The global supply of water is irrelevant given the gross disparities in local water availability and—more important—use. . . . He notes that

global average per-capita freshwater availability is very large and concludes that there is plenty of water for all. However, the global average is irrelevant to severe and complex regional and local problems. Hundreds of millions of Indian and Chinese citizens lack basic water services, but they are excluded from his estimates of people without enough water because, on average, both countries appear to have adequate supplies."¹⁷

Lomborg's attack on biologists' estimates of species loss is also off the mark. One of the best procedures we have today for estimating species loss—and the one used by biologists E. O. Wilson, Peter Raven, Thomas Lovejoy, and many others—is to project losses from known and anticipated habitat destruction. Lomborg challenges this approach with two pieces of claimed evidence. First, he asserts that there is little documented species loss associated with the 98–99 percent loss of forests in the eastern United States, but as Lovejoy and others have pointed out, simultaneous reforestation ensured that total forest cover in the eastern United States never dropped below 50 percent. Lomborg's other claim is that "only" seven out of sixty species of birds went extinct in a well-studied deforestation episode in Puerto Rico, when in fact the seven were all from a group of only twenty bird species unique to the island.¹⁸

My Yale colleague Michael Dove has observed that important parts of our society have, in effect, been "preconfigured" to accept Lomborg's analysis. I believe it would be a big mistake for thoughtful people, conservatives included, to take comfort from *The Skeptical Environmentalist*. I devoutly wish that I could accept his reassurances, much as I hope that some credible body of scientists will tell us convincingly that we need not worry about global climate change. Yet to do that, we would have to disregard the best science and the wisest counsel that is available to us.

The upshot of all these factors is that the international legislating process is slow, hugely difficult, and prone to weak results. Why, then, has it worked at all? Different governments at different times have

shown true leadership and pushed hard for agreement. There is some honest recognition within at least parts of most governments that genuine problems requiring multilateral action do exist. While there is as yet no strong popular groundswell calling for action, environmental and other NGOs are able to generate considerable public scrutiny and pressure. Finally, some international institutions are "bridging institutions," working at scales larger than single nations. Included here are environmental groups and other civil society organizations, multinational corporations, international science with its great credibility, the United Nations, the multilateral development banks, and other multilateral institutions. These bridging institutions have facilitated dialogue and information sharing and have often sought to assert broad interests, regardless of nationality. And last, but not least, the system holds together because tough issues and tough measures are avoided.

In sum, the failure of green governance at the international level is a compound of many elements. The issues on the global environmental agenda are inherently difficult: as I discuss in chapters 6 and 7, powerful underlying forces drive deterioration and require complex and far-reaching responses, while the inherently weak political base for international action is typically overrun by economic opposition and protection of sovereignty. Meanwhile, the response that the international community has mounted has been flawed: the root causes of deterioration have not been addressed seriously, weak multilateral institutions have been created, consensus-based negotiating procedures have ensured mostly toothless treaties, and the economic and political context in which treaties must be prepared and implemented has been largely ignored. To some degree these results can be attributed to accidents, errors, and miscalculations, but the lion's share of the blame must go to the wealthy, industrial countries and especially to the United States, which, since the Montreal Protocol, has not accorded global-scale environmental challenges the priority needed to elicit determined, effective responses.

Part Three Facing Up to Underlying Causes

We have seen that scientists alerted us to the spread of global environmental degradation during the past several decades. We have also seen that, with few exceptions, attempts to eliminate or even slow the destructive patterns have largely failed. The failure stems in part from having focused too much on symptoms while neglecting the underlying causes. When we look closely at the underlying causes, they are greater in number and more complicated than one would ordinarily conclude. A clearer view of the way these factors feed one another suggests a process of deterioration analogous to metastasis, which makes the need to develop remedial action especially urgent. Chapters 6 and 7 examine the driving forces that are endangering the health of the planet, including one that accelerates the others, globalization.