

VANISHING BORDERS

Protecting the Planet in the
Age of Globalization

Other Norton/Worldwatch Books

Lester R. Brown et al.

State of the World 1984 through 2000 (an annual report on progress
toward a sustainable society)

Vital Signs 1992 through 1999 (an annual report on the environmental
trends that are shaping our future)

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HILARY FRENCH

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II

REFORMING GLOBAL
GOVERNANCE

CHAPTER 7

TRADE WARS

In July 1999, the U.S. government decided to get tough with the countries of the European Union (EU), slapping 100-percent tariffs on \$116.8 million worth of European imports, including fruit juices, mustard, pork, truffles, and Roquefort cheese. The European offense was its refusal to revoke a ban on the import of meat treated with growth hormones—a refusal that defied a World Trade Organization (WTO) ruling that the ban was an unfair barrier to U.S. and Canadian beef exports. The EU insists the ban is not an intentional trade barrier at all, but only a prudent response to public concern that eating hormone-treated beef might cause cancer and other health problems. As of December, the EU had refused to back down.¹

The U.S. sanctions were greeted with widespread consternation in Europe, particularly in France, where a number of McDonald's restaurants were targeted for protests. In a symbolic tit-for-tat, the mayor of the French village of St. Pierre-de-Trivisy, in the heart of Roquefort cheese country, decided to retaliate by doubling

the price of Coca-Cola sold at the town's campground and recreation center.²

This fierce transatlantic food fight is emblematic of a new kind of global trade conflict, in which health and environmental laws, rather than traditional trade issues such as tariffs, quotas, and the dumping of commodities like steel or wheat, are now at stake. The collision between the push for freer trade and an array of environmental laws implemented over the last several decades has spurred activists from around the world to sharply challenge the WTO's right to stand in judgment on national laws. Under pressure, policymakers are beginning to contemplate environmental modifications to the rules of world trade. But the campaign to "green" the WTO will likely be long and hard-fought.

FOOD FIGHTS

The accord that created the World Trade Organization included provisions that impose new restrictions on laws designed to protect human, animal, and plant health. Trade specialists had argued that legislators were passing disingenuous laws that lacked a scientific rationale, with the primary goal of keeping foreign products off their shelves. In order to prevent this kind of presumed interference with free trade, the Sanitary and Phytosanitary (SPS) Measures agreement encourages countries to harmonize a range of relevant standards at the international level. Food safety requirements are high on this list.³

Although the agreement permits countries to maintain national laws that are tougher than international standards, it places sizable legal hurdles in their way if they choose to do so. For instance, if an environmental law is challenged, the country defending the law must demonstrate that it is scientifically justified and based on risk assessment. Environmentalists and consumer groups argue that the new

restrictions promote least-common-denominator policy-making—adoption of policies that are weak enough to be acceptable to the least environmentally protective member countries. The worry is that vested interests will exploit any scientific uncertainty surrounding a protective law (and in science, there are always uncertainties) as a reason to limit preventative environmental action.⁴

The need for such action is embodied in the precautionary principle—a basic tenet of international environmental law that is steadily gaining ground. The Rio Declaration on Environment and Development, for example, which was agreed to at the June 1992 Earth Summit, declares that: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." The WTO's provisions, on the other hand, require that health and safety laws be based on scientific principles and not be maintained with insufficient scientific evidence. Although on the face of it these requirements sound reasonable enough, in practice countries often disagree about how much evidence is "sufficient" to justify preventative measures. The WTO shifts the burden of proof—in effect requiring that chemicals and other food additives be proved harmful before their use can be restricted. The problem with this approach is that extensive testing, sometimes over a period of years, is required to know if a substance has long-term cumulative effects that might cause cancer, damage to the immune system, or other serious ailments.⁵

As the Uruguay Round of trade negotiations was wrapping up in 1993, the European Community and the United States were already embroiled in a dispute over a European law that forbids the sale of meat produced using growth hormones—the dispute that is only now coming to a full boil. Since it went into effect in the late 1980s, the law has always applied equally to domestically raised and imported live-

stock, and has thus passed the WTO's bedrock test of nondiscrimination. The EU maintains that the ban is not an intentional trade barrier, but a prudent response to public concern that eating hormone-treated beef causes cancer and reproductive health problems. A number of studies suggest that the public concern may be justified. But the hormone-hooked U.S. livestock industry was threatened by the ban, as it blocks hundreds of millions of dollars worth of U.S. beef exports. The industry prevailed on the U.S. government to take up its cause at the WTO. The SPS agreement provided added ammunition for this long-standing U.S. campaign to use international trade rules to overturn the disputed European law.⁶

This effort led to a February 1998 WTO appeals panel ruling, which upheld an earlier dispute panel ruling that the European law violated WTO rules. The panelists' preliminary argument was that the law was based on inadequate risk assessment. They explicitly rejected the EU's defense that the import restriction was justified by the precautionary principle. Environmentalists were aghast at the decision. The U.S. consumer group Public Citizen charged that "through the dispute over hormone-treated beef, the WTO inappropriately inserted itself as a major arbiter of domestic health and safety policy. The WTO's beef hormone decision undermines countries' democratic prerogatives to safeguard their citizens' health and well-being."⁷

The beef hormone controversy is widely viewed as just a warm-up for a more serious trade controversy now brewing over genetically modified organisms (GMOs). Once again, the European Union and the United States are the primary antagonists. Prompted by public concern over the uncertain health and ecological effects of GMOs, the EU passed legislation in 1998 requiring all food products that contain genetically modified soybeans or corn to be labeled as such. Several other countries, including Australia, Japan, and

South Korea, are now following suit. A large share of food products made by U.S. companies—breads, salad oils, and ice cream, among them—now contain GMOs. Many European producers, in contrast, are steering clear of GMOs in the face of public concern. U.S. companies complain that the labeling requirements amount to trade barriers, and the U.S. and Canadian governments are now making this same point at the WTO and in other international forums.⁸

U.S. companies are also frustrated that the EU and much of the rest of the world have been slow to grant approval for the sowing of many varieties of genetically modified seeds, or the sale of crops grown from them. U.S. agribusiness has seen multimillion-dollar markets largely dry up as a result. U.S. exports of corn to Europe have virtually ceased, as genetically modified corn cannot be reliably separated from conventional varieties. The situation does not appear likely to change anytime soon. EU environment ministers agreed in June 1999 to a moratorium on new approvals while the EU's law governing the approval of GMOs is revised, a process that is likely to take two years or more.⁹

As in the beef hormone case, the U.S. government maintains that restrictions on GMOs violate WTO rules because hard scientific evidence of adverse health and ecological effects is lacking. The EU and various countries dispute this view, maintaining instead that labeling requirements and other policies are a prudent response to a new technology that has potentially large health and ecological effects that are still clouded by scientific uncertainties. These countries emphasize that the precautionary principle dictates proceeding with caution until more is known. Labeling, in particular, seems to many people around the world to be a reasonable response to consumer concerns. Many citizens view efforts to frustrate labeling laws as a profound threat to a consumer's "right to know."¹⁰

In February 1999, a proposed "biosafety" protocol to the

biological diversity convention was the first major victim of the burgeoning international trade war over GMOs. Negotiations under way for a few years had been aimed at putting in place a system of prior consent for the transport of genetically engineered seeds and products. The talks were scheduled to wrap up in Cartagena, Colombia, in February, but six major agricultural exporters—Argentina, Australia, Canada, Chile, the United States, and Uruguay—put a monkey wrench into these plans by blocking adoption of the accord. One of the main U.S. arguments against the protocol was a claim that its provisions ran counter to the rules of the WTO. As of December 1999, negotiators were still hoping to bridge the differences.¹¹

Trade tensions over GMOs have also been simmering over the last few years within WTO committees. The issue is likely to receive more prominent treatment soon. Both the United States and Canada are pushing for it to be explicitly included on the agenda for future trade talks. And officials on both sides of the Atlantic are warning that the GMO issue could soon provoke a full-fledged transatlantic trade war.¹²

THE TUNA-DOLPHIN CHALLENGE

The aggressive U.S. stance against the EU's food safety laws is somewhat surprising, given that several of the nation's own environmental laws have also run afoul of world trade rules in recent years. In fact, widespread public concern about the environmental impact of the General Agreement on Tariffs and Trade (GATT)—the WTO's predecessor—was sparked in September 1991 by a GATT ruling against an embargo on Mexican tuna imposed under the U.S. Marine Mammal Protection Act (MMPA). This ruling raised widespread concerns that world trade rules will pose a barrier to effective action to protect global environmental resources.¹³

The United States imposed the trade restriction after

determining that Mexicans were fishing for tuna by a controversial method known as “setting nets on dolphins.” For reasons that are not fully understood, dolphins and tuna tend to swim together in the eastern tropical Pacific Ocean. Fishers use the dolphins as markers for the tuna below. They set enormous purse-seine nets on schools of dolphins, bringing up tuna but also trapping dolphins in the process. In 1972, the original MMPA had sharply curtailed this practice for U.S. fishers by mandating tight restrictions on marine mammal mortality as a byproduct of commercial fishing. The results were dramatic: the number of dolphins ensnared by the U.S. tuna fleet fell from 368,600 in 1972 to under 10,000 in 1983.¹⁴

But dolphin advocates noticed a disturbing trend—foreign fishing boats began to account for a growing share of the tuna fleet in the eastern tropical Pacific, many of them formerly U.S. fishers who had simply reflagged their vessels in foreign ports. In order to prevent imports of foreign-caught, dolphin-deadly tuna from subverting the purpose of the law, the U.S. Congress amended the MMPA twice during the 1980s to impose restrictions on imported tuna comparable to those that applied to the U.S. fleet.¹⁵

In concluding that the tuna embargo breached current trade rules, the GATT panelists emphasized a key though controversial distinction between import restrictions aimed at the characteristic of products themselves and those keyed to production processes. They decreed that the U.S. law was illegal under GATT because the United States was rejecting the process by which the tuna were harvested rather than the tuna itself. Although GATT, and later the WTO, contains a specific provision that ostensibly protects the right of countries to pursue environmental protection policies that might otherwise contradict trade rules, the panelists ruled that this environmental exception pertains only to efforts by countries to protect the environment within their own bor-

ders. Because the Mexican tuna fishing took place outside of U.S. waters, the panelists viewed the embargo as tantamount to the United States foisting its environmental laws and values on the rest of the world. This point of view resonated with many people, particularly in the developing world, who looked to the rule-based GATT as a check on the U.S. tendency to wield its economic power unilaterally.¹⁶

But the decision exposed some glaring inconsistencies between the rules of the world trading system and emerging international environmental principles and practices. The trading system's aversion to process-related trade restrictions struck many people as particularly arbitrary, as environmental policy is moving increasingly toward focusing on the environmental impacts of products throughout their life-cycle—including production, distribution, use, and disposal. Gold or timber may be harmless or beneficial as products, for example, but enormously costly to human or environmental health in the ways they are processed, with gold extraction leaching cyanide into groundwater, and clearcutting reducing vast swaths of primary forests to wastelands. Reform of extraction and manufacturing processes is essential to making real environmental advances, yet trade rules put up a sizable hurdle to pursuing such efforts in a world economy that is becoming steadily more integrated.¹⁷

Also worrisome was the ruling's failure to acknowledge the right of countries to take action to protect the atmosphere, the oceans, and other parts of the global commons—a failure that raised questions about the legality under GATT of an array of environmental policies. What would become of policies aimed at reducing the use of harmful drift nets in fishing, protecting primary forests, or staving off ozone depletion or global warming? By the panel's reasoning, it seemed that even provisions of international environmental agreements designed to protect global resources could be

ruled GATT-illegal. This clash between two different spheres of international law presented the world with a major legal challenge, as it is not always clear which agreement trumps the other in cases where two treaties are in conflict.¹⁸

It was thus somewhat ironic that the panelists further argued that the lack of an international agreement on dolphin protection practices in tuna fishing was one of the factors that made the U.S. import restriction suspect. Although coordinated international action to combat shared environmental threats is imperative, the process of reaching consensus can take years and even decades—time the world can ill afford in the face of accelerating, potentially irreversible ecological decline. At the time the U.S. import restrictions were imposed, nations had been trying for years to reach an agreement on dolphin-friendly fishing practices through the Inter-American Tropical Tuna Commission (IATTC). Twenty years after the United States first adopted dolphin-protection legislation, the IATTC finally reached an agreement in early 1991 requiring observers on boats and reduced dolphin mortality rates. But Mexico refused to participate at that time.¹⁹

In contrast to the notoriously slow pace of multilateral diplomacy, unilateral trade restrictions often generate quick and decisive results. In the case of the tuna-dolphin restrictions, several countries—including Ecuador, Panama, and Vanuatu—responded to the import restrictions by taking steps to limit dolphin mortality in tuna fishing. As “dolphin-safe” tuna fishing began to take off worldwide, reported dolphin mortality in the eastern tropical Pacific plummeted, falling from 133,000 in 1986 to less than 2,000 in 1998.²⁰

Although unilateral trade restrictions are often derided as inimical to multilateral cooperation, they can in fact be an important tool for promoting stronger and more effective international accords. The tuna-dolphin controversy is a case in point. The 1991 decision was never formally adopt-

ed by the GATT Council, as Mexico and the United States joined forces at GATT to prevent this from happening. (Neither country wanted to create a political firestorm in the midst of efforts to get the North American Free Trade Agreement approved by the U.S. Congress.) A subsequent similar ruling in 1994 on a case brought by the European Commission was also never formally adopted. But the controversy over these cases did spur both countries to get serious about reinvigorating negotiations through the IATTC, leading to a binding agreement in February 1998 on an International Dolphin Conservation Program among eight countries whose vessels fish in the eastern Pacific Ocean.²¹

Signatories to this agreement, among them both Mexico and the United States, agreed to a range of provisions, including binding limits on dolphin mortality in the region; mandatory observers on all vessels to monitor the agreement; reductions in the unintended “bycatch” of sharks, billfish, and juvenile tuna in addition to sea turtles; and sustainable catch quotas for tuna. In return for these commitments, the United States pledged to lift the tuna embargo for all participating countries. To honor this promise, the administration worked with its allies in Congress to amend the U.S. law to bring it into conformity with the International Dolphin Conservation Program.²²

Some environmental groups bitterly criticized the changes as a weakening of the law. The critics objected most vociferously to the lifting of a prohibition on setting nets on dolphins that was previously required to qualify for the U.S. “dolphin-safe” label—and thus for access to the U.S. market. Under the new agreement, the setting of nets on dolphins is not prohibited so long as no dolphins are killed or seriously injured in the process. Other environmental groups, including the usually uncompromising Greenpeace, supported the International Dolphin Conservation Program and the associated changes in U.S. law. They maintain that the agreement

offers improved protection for dolphins and the broader marine ecosystem. Many supporters of the law have also expressed a preference for internationally accepted solutions over unilaterally dictated policies.²³

OF SHRIMP AND TURTLES

Despite the furor over the tuna-dolphin decision, in 1998 the WTO ruled against a U.S. measure aimed at reducing unintended sea turtle mortality as a byproduct of shrimp trawling. Sea turtles are both extremely endangered and highly mobile, making international action to protect them a high priority. The provisions of the U.S. law in question closed the lucrative U.S. shrimp market to countries that do not require their shrimpers to use turtle excluder devices (TEDs)—simple but highly effective pieces of equipment that prevent turtles from getting ensnared in shrimp nets—or that do not have comparable policies in place. Spurred by the threat of U.S. trade restrictions, 16 nations (13 in Latin America plus Indonesia, Nigeria, and Thailand) have by now moved to require the use of TEDs. India, Malaysia, and Pakistan chose a different tack, however, deciding to launch a WTO challenge rather than meeting the U.S. requirement. (Thailand joined them in this effort as a matter of principle, even though it had adopted TEDs.)²⁴

Although the environmental effectiveness of the U.S. law was clear, both the initial WTO dispute resolution panel and a subsequent appeals panel concluded in 1998 that the measure violated WTO rules. The legal reasoning of the appeals panel was an improvement over earlier rulings, as it acknowledged that countries may in some circumstances be justified in using trade measures to protect global resources. But the panel nonetheless took issue with the way in which the U.S. law had been implemented, arguing that it was applied in an arbitrary manner that failed to treat countries

evenhandedly. The bottom line was that the U.S. law would have to be changed in order to comply with WTO rules. This outcome was particularly alarming, as the Uruguay Round of trade talks had strengthened the rules of dispute resolution proceedings to make rulings binding, and to provide for tougher trade retaliation in cases where countries are unwilling to change offending laws in order to adhere to panel findings.²⁵

In response to the ruling, the U.S. government altered the way it was implementing the law without seeking any changes to the statute itself. The new guidelines provide for the import of specific shipments of shrimp that have been approved as turtle-safe even if the country as a whole has not met the certification requirements. The U.S. government also said it would step up its efforts to negotiate a multilateral accord on sea turtle protection with its Asian trading partners, although it is more likely that the Asian nations will press ahead on their own with a regional accord. It remains to be seen whether the U.S. response will satisfy the WTO, thus precluding the imposition of retaliatory trade sanctions.²⁶

In any case, many U.S. environmentalists are unhappy with the government's response. Their primary concern is that the shipment-by-shipment method will be less effective in safeguarding turtles than the earlier blanket restriction, as it will not compel countries to mandate the use of TEDs when fishing for shrimp not destined for the U.S. market. A turtle might thus survive an encounter with a TED-equipped boat only to later fall prey to a TED-free vessel. Environmentalists also worry that the new policy may facilitate the entry of "laundered" shrimp into the United States. Several environmental groups filed suit against the government at the U.S. Court of International Trade, charging that the revised guidelines were inconsistent with provisions of the Endangered Species Act that stipulate

adequate protection for sea turtles. In a preliminary ruling in April 1999, the court sided with the environmental groups, placing national law and international trade rules on a possible collision course.²⁷

BEYOND SEATTLE

As opposition to the WTO continues to mount, many governments are beginning to acknowledge, rhetorically at least, that reforms are needed to make the world trading system environmentally sound. In a 1998 address commemorating the fiftieth anniversary of GATT, President Bill Clinton conceded: "We must do more to make sure that this new economy lifts up living standards around the world, and that spirited economic competition among nations never becomes a race to the bottom in environmental protections, consumer protections, and labor standards." And at the G8 summit meeting of industrial powers held in Cologne, Germany, in June 1999, world leaders agreed that environmental considerations should be taken into account in future WTO negotiations. But most governments have so far been vague about exactly how this should be done.²⁸

Despite the lofty words, it remains far from clear that governments are now ready to amend existing WTO rules to buffer environmental laws from trade challenges. Among the priorities for reform are the following steps: clearly incorporating the precautionary principle into WTO rules, protecting consumers' right to know about the health and environmental impact of products they purchase by safeguarding labeling programs, recognizing the legitimacy of distinguishing among products based on how they were produced, ensuring the right of countries to use trade measures to protect the global commons, and providing deference to multinational environmental agreements in cases where they conflict with WTO rules. The European Union

has voiced general support for many of these ideas, but the United States appears lukewarm about writing any new environmental guarantees into the WTO. Ongoing controversies over beef hormones and GMOs undoubtedly color the U.S. view.²⁹

Other issues also cry out for attention. Developing countries are particularly concerned about that the Agreement on Trade-Related Intellectual Property Rights (TRIPS), which came out of the Uruguay Round. This agreement requires WTO members to adopt intellectual property rights systems largely patterned on the industrial-country model, or else to subject themselves to retaliatory trade sanctions. Developing countries argue that the TRIPS agreement contradicts provisions of the U.N. Convention on Biological Diversity that protect indigenous knowledge. A particular issue is a provision that requires countries to recognize the intellectual property of commercial plant breeders, while failing to provide for any remuneration to farmers who have gradually improved plant varieties over the course of centuries. Governments began a review of the TRIPS agreement in 1999. Many developing countries and nongovernmental organizations are pushing for the agreement to be substantially overhauled.³⁰

On the more positive side, the WTO could conceivably be enlisted in an effort to reduce environmentally harmful subsidies. World trade rules have long discouraged subsidies, as they distort the economic playing field. The United States and six other nations have suggested building on this tradition by making the elimination of fishing subsidies an objective for future trade talks. These subsidies, which add up to some \$14–20 billion annually, help propel overcapacity in the world's fishing fleet, which is itself a powerful driving force behind today's depleted fisheries. But the European Union and Japan, both of which are major subsidizers of their fishing fleets, have so far reacted cautiously to the initiative.³¹

Other environmentally harmful payouts could also be tackled at the WTO. The United States and other agricultural exporters are urging greater attention to the adverse environmental impacts of agricultural export subsidies. But the European Union and Japan are unenthusiastic, as they both face heavy domestic political pressure to maintain agricultural subsidies. Energy subsidies would be another logical candidate. They currently drain national treasuries to the tune of \$100 billion annually, while also imposing heavy environmental costs. Subsidies to the timber industry, such as selling timber from state lands to private companies at cut-rate prices, could also potentially be taken on at the WTO.³²

Procedural questions also urgently need to be addressed. The recent spate of environmentally related trade disputes has opened the WTO to intense scrutiny, with critics charging that its secretive ways pose a basic threat to democracy. Many important documents are unavailable to the public, and most WTO committees, as well as all dispute resolution proceedings, are conducted in closed sessions dominated by trade rather than environmental experts.³³

Even *The Economist*, which normally pushes a free-trade agenda with nearly religious zeal, acknowledges that “the four-year old WTO is at a crossroads. It has become a quasi-judicial body, an embryo world government.... Yet it is now being asked to arbitrate on matters that are intensely political. It lacks the legitimacy to do so.” Indian activist Vandana Shiva makes essentially the same point, although she carries it a step further: “The WTO is basically the first constitution based on the rules of trade and the rules of commerce. Every other constitution has been based on the sovereignty of people and countries. Every constitution has protected life above profits. But WTO protects profits above the right to life of humans and other species.”³⁴

The unprecedented protests by tens of thousands of citi-

zen activists in Seattle in November 1999 were a powerful wake-up call about the deep-seated public opposition to international governance based on such a narrowly economic conception of the global interest. Far-reaching reforms are needed if trade agreements are to garner the political support they will need in order to be sustained in the new century.³⁵

CHAPTER 8

GREENING THE FINANCIAL ARCHITECTURE

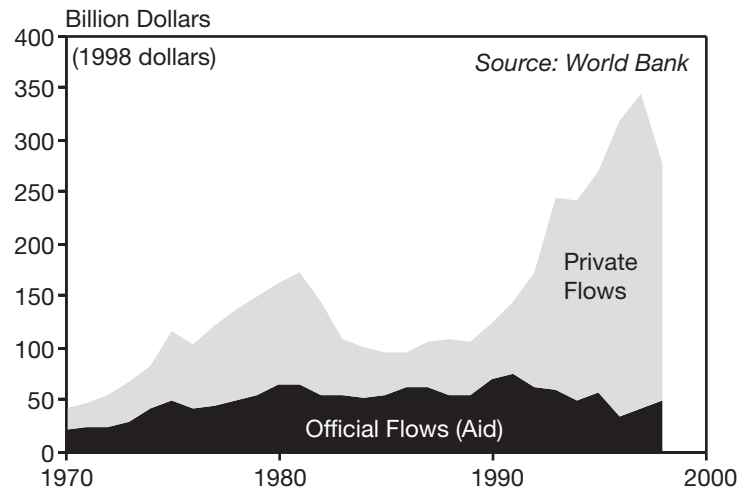
During the 1990s, money became increasingly mobile due to a range of factors, including the takeoff in computerized trading as well as the deregulation of international capital markets. International investment surged in response, particularly into the newly established stock markets of the developing world.¹

Private capital flows into developing countries and the former Eastern bloc increased from \$53 billion at the beginning of the 1990s to an all-time high of \$302 billion in 1997. Although just 44 percent of the capital moving into the developing world in 1990 was from private sources, by 1997 the figure reached 88 percent. (See Figure 8–1.) Large parts of Asia and Latin America were suddenly transformed in the minds of international investors from poor, “developing countries” into glistening “emerging markets.” At the same time, new financial instruments such as hedge funds and derivatives created an explosion of foreign exchange trading, with \$1.5 trillion changing hands every day.²

But in 1997 the bubble burst. Thailand was the first eco-

FIGURE 8-1

Private Capital Flows to Developing Countries, 1970-98



economic domino to fall, when it was forced to devalue its currency sharply after it came under sustained speculative attack. The crisis soon spread to Indonesia, Malaysia, the Philippines, and South Korea. International investors lost their nerve and raced for the exits. Some \$20 billion in 1997, and \$30 billion in 1998, flowed out of the Asian countries in crisis. Banks failed and stock markets collapsed, sending the economies of the region into a tailspin.³

And the crisis did not stop at the continent's edge. Shaken by the Asian experience, investors began to pull money out of emerging markets everywhere. Russia's currency and stock market went into a free fall in late August 1998, forcing the country to default on \$40 billion in international loans. Brazil appeared to be the next domino waiting to fall, prompting the International Monetary Fund (IMF) to step in with a \$42-billion bailout plan.⁴

The social and environmental fallout from the crisis

was severe. In battered Asia, tens of millions of people fell into poverty as their jobs disappeared, and as many as a million children were pulled out of school, with some of them pushed into prostitution by their desperate families. Growing poverty attributable to the crisis also had environmental costs, such as a surge in Indonesia in the poaching of endangered monkeys, tigers, and other species as destitute people sought quick cash. And governments and businesses desperate to stave off bankruptcy slashed environmental spending.⁵

As of late 1999, the global economic crisis appeared to be in at least temporary remission. International capital had begun to return to most of the countries affected by the crisis, and economic growth rates were again headed upward, although poverty rates remained stubbornly high. But many commentators warn against a false sense of complacency. They predict that the next jolt is not far off, as the globalization of international finance has outpaced the ability of governments and international institutions to manage the system effectively.⁶

If there is a silver lining to the crisis, it lies in the wake-up call sounded about the risks of rapid globalization, and the launching of a critical dialogue about how to reform what is being called the "international financial architecture" to meet the demands of the twenty-first century. As these discussions proceed, the need to protect the natural resource base that underpins the global economy merits a prominent place on the agenda.⁷

ENVIRONMENTAL ADJUSTMENT

The International Monetary Fund and the World Bank are both key pillars of the current international financial architecture. The missions of these two institutions, which were created in response to the Great Depression that helped pre-

cipitate World War II, are now being called into question. The IMF came under close scrutiny in the wake of the Asian economic crisis. The Fund's high-profile role as a conduit for multibillion-dollar bailout packages for the crisis-stricken countries was a clear demonstration of its formidable powers. But this also stirred controversy, as prominent economists took issue with the wisdom of the institution's financial advice and the secrecy shrouding its operations.⁸

Although the World Bank maintained a lower profile during the economic crisis of the late 1990s, it has also been active in channeling funds into the crisis-ridden countries, often in close cooperation with the IMF. Over the last few years, the Bank has boosted both its total lending and the share of its funds that are spent on cash infusions for "structural adjustment." The Bank's total lending reached \$29 billion in 1999, up from just \$19 billion two years earlier. More than half of this was for structural adjustment, compared with only 27 percent in 1997. Under conventional structural adjustment loans as well as the crisis-generated bailout packages, countries receiving funds agree to implement a long and specific list of policy changes intended to restore them to economic health and thus to creditworthiness. Privatization, price and exchange rate stability, and trade liberalization are among the policies commonly recommended.⁹

But the World Bank and the IMF pay insufficient heed to the profound effects of these policies on the ecological health and social fabric of recipient countries. One important component of most adjustment loans is policies aimed at raising exports in order to generate foreign exchange with which to pay back debts. Yet the pressure to export can lead countries to liquidate natural assets such as fisheries and forests, thereby undermining longer-term economic prospects. Intensive export-oriented agriculture is also often promoted, sometimes at the expense of small farmers and indigenous peoples. At the same time that structural adjust-

ment loans promote exports of environmentally sensitive commodities, they also often require countries to make Draconian cuts in government spending. The budgets of already overburdened environment and natural resource management ministries are rarely spared.¹⁰

All these effects are evident in the recent bailout packages. In Indonesia, the IMF encouraged more palm oil production as part of its broader strategy for pulling that country out of its economic crisis, mandating that Indonesia remove restrictions on foreign investment in this sector. Yet rapid growth in palm oil exports has been a major contributor to the decimation of Indonesia's biologically rich tropical forests in recent years, raising questions about the wisdom of pushing such exports further still. (See Chapter 4.)¹¹

Spending on environmental protection has declined markedly in the crisis-ridden countries, including Indonesia, the Philippines, South Korea, and Thailand. In Russia, the budget for protected areas was recently cut by 40 percent, a move that nongovernmental organizations (NGOs) in the region attribute to pressure from the IMF. And as part of a recent pact with the IMF, Brazil agreed to major cutbacks in environmental and social spending. A key international program aimed at protecting the Amazonian rainforest from destruction by ranchers, loggers, farmers, and miners is one of the programs that faced the chopping block, although a public outcry succeeded in saving the initiative from complete collapse. The timing of these reductions was particularly poor in light of the high rates of deforestation in the Brazilian Amazon over the last few years.¹²

Although structural adjustment programs often lead to environmental harm, they have also been used in a few cases to promote environmentally beneficial policy changes. In 1996 and 1997, the IMF suspended loans to Cambodia after government officials awarded logging concessions to foreign firms that threatened to open up the country's entire remain-

ing forest area to exploitation—while funneling tens of millions of dollars into the bank accounts of corrupt officials. And despite its worrisome provisions for stepped-up natural resource exports, the recent Indonesian bailout plan also included several provisions intended to benefit forest management in the country.¹³

As part of an assault on the country's tradition of "crony capitalism," the Indonesian bailout plan required a number of reforms to the country's corruption-laden forestry sector, including tighter control over a government reforestation fund, the revenues of which had often just lined the pockets of President Suharto's political allies. The bailout package also included several measures aimed specifically at protecting the country's forests, such as reducing land conversion targets to environmentally sustainable levels, instituting an auctioning system for handing out concessions, and imposing new taxes on timber sales. Although these reforms were a step in the right direction, their ultimate effect on deforestation rates in the country remains to be seen.¹⁴

Besides using their influence to discourage unsustainable levels of natural resource exploitation, the IMF and the World Bank are well placed to promote environmentally beneficial fiscal reforms, such as cuts in environmentally harmful subsidies or the imposition of pollution taxes. They could also promote improvements in environmental accounting, such as incorporating the depletion of natural resources into national income figures. As things now stand, the destruction of natural assets such as forests, fisheries, and minerals is not typically included in national income figures, which means that policymakers are working from an incomplete set of books. And the IMF could include environmental issues in its mandate to monitor the economic prospects of its member countries, in part by tracking environmental spending levels and structural adjustment–mandated legislative changes that affect the environment.¹⁵

Despite the clear links between economic and environmental health, the IMF has long resisted the idea that environmental issues have much to do with its mission. When the organization was first created, its primary role was to help tide countries over when they faced short-term liquidity problems rather than to help them meet longer-term development goals. But the abandonment of fixed exchange rates in the 1970s deprived the IMF of much of its original mandate. Since then it has become increasingly involved with issues of longer-term development, such as its prominent role in brokering debt restructuring deals in the 1980s. The IMF now accepts that issues such as fighting corruption and alleviating poverty intersect with its mission. It is difficult to see why environmental protection should be any different.¹⁶

On paper, the development-oriented World Bank has been far more open than the IMF to the idea that environmental concerns should be integrated into its structural adjustment lending. The Bank's policy that governs adjustment lending notes that the environmental impact of loans should be fully considered as they are prepared, with a view toward promoting possible synergies and avoiding environmentally harmful results. But an internal review by the Bank of more than 50 recent loans found that few paid much heed to environmental and social matters. Whereas a 1993 Bank report found that some 60 percent of adjustment loans included environmental goals, the recent study concluded that this share had plummeted to less than 20 percent. An added problem is the fact that the Bank's policy on environmental impact assessment does not cover broad-based structural adjustment lending, although it is supposed to apply to adjustment loans aimed at specific sectors, such as agriculture and energy. IMF loans are also not subject to environmental impact assessment.¹⁷

LEVERAGING CHANGE

Despite the World Bank's growing role in adjustment lending, project lending remains central to its activities. The Bank has traditionally made loans only to governments, but in the last few years it has increasingly emphasized supporting the private sector. It has done this both by using its own funds to guarantee private-sector projects and by bolstering the operations of two affiliated agencies, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA). The IFC directly finances private enterprises, while MIGA insures corporations against political risks, such as expropriation, civil disturbance, and breach of contract. At last count, in 1995, the World Bank estimated that some 10 percent of all private-sector investment in the developing world was supported at least indirectly by its various private-sector programs.¹⁸

Both IFC and MIGA are involved in many large investment projects with heavy ecological impacts. Nearly half of IFC's committed portfolio of \$12.9 billion in 1999 was invested in sectors with large environmental impacts, such as automobile manufacturing, chemicals, construction, infrastructure, and mining. In recent years, the IFC has helped finance a chemical factory in Venezuela, a gold mine in Burkina Faso, and a cement factory in China, to cite just a few examples.¹⁹

After more than a decade of pressure from NGOs and determined efforts by committed insiders, the World Bank now has an extensive set of environmental and social policies, which among other things cover environmental impact assessments of projects, forestry lending, involuntary resettlement, protection of wilderness areas, the rights of indigenous peoples, and pest management. The IFC and MIGA both recently issued their own parallel policies, and the World Bank published an updated Pollution Prevention and

Abatement Handbook, which provides detailed pollution reduction guidelines for nearly 40 industries. The importance of the World Bank's standards is magnified by the fact that these are often looked to by private investors as the prevailing international norm.²⁰

In theory, all Bank agencies are supposed to bound by their policies, although the Bank admits it has a tarnished history in following its own rules. In recent years, the organization has taken steps to improve compliance, including creating a special unit charged with overseeing implementation of 10 "safeguards" policies, which include most environmental and social requirements.²¹

But controversies continue to swirl around ongoing and proposed projects, raising questions about the seriousness of the Bank's newly professed commitment to enforcing its policies. In June 1999, the Board of Directors approved a controversial \$160-million loan to China for the resettlement of some 58,000 poor farmers to a sparsely populated part of Tibet, over the objections of both the German and U.S. governments. Critics charge that the planned resettlement is mainly aimed at helping China exert political control in the region, and that it will cause substantial environmental and social disruption, in violation of the Bank's own policies.²²

The Bank is also considering a package of support for a \$3.5-billion project to build an oil pipeline through untouched rainforest in Cameroon to oilfields in southern Chad. Environmentalists charge that the project amounts to "corporate welfare"—at large environmental and social cost. They also argue that the proposed project would not comply with several Bank policies, including those on environmental impact assessment and protection of the rights of indigenous peoples. The project sponsors initially included Elf Aquitaine, Royal Dutch Shell, and Exxon, although Elf and Shell withdrew in late 1999. It is not clear whether their

decisions were influenced by the opposition of environmentalists or by economic factors alone. As of late 1999, the Bank's Board of Directors had not yet decided whether to approve the project.²³

As World Bank environmental and social standards were strengthened over the last decade, private investors turned increasingly to bilateral export financing agencies to find support for projects that no longer passed muster at the Bank. Export credit support climbed from \$24 billion in 1988 to \$105 billion in 1996. All told, bilateral export promotion in the form of loans and investment insurance now underwrites more than 10 percent of all world trade. Bilateral export promotion often supports environmentally disruptive projects, including mines, pipelines, power plants, and hydroelectric dams.²⁴

The U.S. government has had environmental policies in place for several years at two of its export promotion agencies, the U.S. Overseas Private Investment Corporation (OPIC) and the U.S. Export-Import Bank. Both agencies have strengthened their policies in recent years to, among other things, require the agencies to track and report on greenhouse gas emissions from projects they support, and to prohibit support for logging in primary tropical forests.²⁵

Although these policies are important steps in the right direction, the last few years have provided ample evidence of their shortcomings. A 1999 report by the Washington-based Institute for Policy Studies and Friends of the Earth concluded that OPIC and the Export-Import Bank between them underwrote some \$23 billion in financing for oil, gas, and coal projects between 1992 and 1998. Over their lifetimes, these projects will release some 29 billion tons of carbon dioxide, more than total global emissions in 1998.²⁶

And in June 1999, OPIC's Board of Directors approved a controversial \$200-million package of loan guarantees to Enron, Shell, and local Bolivian partners for the construc-

tion of a 630-kilometer gas pipeline from eastern Bolivia to a power plant in Cuiabá, Brazil. The project will cut through some of Latin America's most important natural areas, including Bolivia's Chiquitano Forest and the headwaters of the Pantanal, the world's largest wetland. Environmentalists charge that the loan was made in blatant contradiction of OPIC's prohibition on financing infrastructure and extractive projects in primary tropical forests. OPIC counters that the affected forest is not "primary," as some isolated logging has already occurred in the area. It also touts the environmental benefits of natural gas, which the agency argues will reduce demand for fuelwood and diesel fuel.²⁷

Even with the best of policies, in a global economy tough national standards can easily be undermined by laggards abroad. The United States learned this lesson the hard way a few years back when its Export-Import Bank refused on environmental grounds to extend credits to companies such as the heavy equipment manufacturer Caterpillar that wanted to participate in China's Three Gorges Dam project. The dam is expected to flood more than 60,000 hectares of land and 160 towns, forcing the resettlement of some 1.3 million people. But the Bank's counterparts in Canada, France, Germany, Japan, and Switzerland stepped into the breach created by the U.S. decision. Stung by the experience, the United States is working to persuade other donor countries to develop environmental guidelines for their export finance agencies. Several countries are now developing such standards, including Canada, Japan, Norway, and the United Kingdom. Negotiations are also under way to create common environmental standards for the export finance agencies of the major industrial countries. NGOs are pushing for them to be set at a high level.²⁸

THE GREENING OF WALL STREET?

Although strengthened environmental standards at the world's export credit agencies are desperately needed, the risk remains that private capital markets will be tapped for environmentally damaging projects. In the Three Gorges case, a number of prominent investment banks—including Lehman Brothers, Morgan Stanley, and Salomon Smith Barney—have sponsored bond offerings over the last few years to help the Chinese government raise funds for the dam. Although convincing private financiers to pay attention to the environment is substantially more difficult than lobbying public institutions such as the World Bank and export credit agencies, environmental activists and others are pushing private lenders and investors to pay attention to the environmental consequences of their loans.²⁹

Commercial banks require exhaustive studies of possible risks before making loans, a process known as “due diligence.” Increasingly, banks are viewing environmental issues as an important consideration in this process. They have a diverse range of concerns. Banks worry, for example, that a hazardous waste dump will be discovered on a property they lent money for, and that they will be held liable, as has happened in recent U.S. court cases. They also fear that violations of environmental laws will lead to large financial penalties that will undermine a borrower's creditworthiness. In the most extreme case, a project might be stopped altogether in the face of opposition from local citizens and environmental groups.³⁰

“International commercial banks, whether they intend to be or not, are frequently very effective enforcers of local and international environmental requirements,” maintains Bradford Gentry of Yale University. “The level of scrutiny given to these issues by banks is often well above that of local environmental enforcement.” Nonetheless, a 1997 study by

the National Wildlife Federation found substantial room for improvement: fewer than half of 51 financial institutions from 13 countries on four continents routinely conduct environmental due diligence on transactions other than those secured with real estate.³¹

In an effort to better this record, the U.N. Environment Programme (UNEP) launched an effort in 1992 to encourage major banks around the world to incorporate environmental considerations into their lending programs. So far, 162 banks from 43 countries have signed the initiative's Statement by Banks on the Environment and Sustainable Development. The signatories underscore their expectation that borrowers must comply with “all applicable local, national, and international environmental regulations.” They also pledge to update their accounting procedures to reflect environmental risks, such as the potential for chemical accidents or hidden hazardous waste dumps, and to develop banking products and services that promote environmental protection.³²

Although laudable in its goals, the UNEP statement requires few specific commitments. In fact, several signatories were involved with the recent Chinese bond offerings that activists charge are funneling money into the Three Gorges project. In order to avoid such gaps between rhetoric and reality, the U.K.-based Green Alliance suggests strengthening the UNEP initiative by transforming the statement into a document whose expected standards of performance are clear enough to be audited.³³

Stock market investors are also slowly beginning to show more interest in environmental questions. It used to be assumed that it was costly for companies to be good environmental stewards. But this view is giving way to new evidence that companies with strong environmental management structures may in fact perform better financially, on average, than companies that are plagued by large environmental lia-

bilities such as the threat of paying costly fines.³⁴

A 1995 report by the Investor Responsibility Research Center compared the stock market performance of the companies in the Standard & Poors index, a group of 500 representative stocks. They sorted the firms into “high-” and “low-” polluting companies. Overall, the study found no penalty for investing in “green” portfolios, and concluded that in some cases low-pollution portfolios actually demonstrated superior performance. A November 1996 study by the consulting firm ICF Kaiser was more bullish still. Its survey of more than 300 Standard & Poors companies revealed that adopting proactive environmental policies had a “significant and favorable impact” on a firm’s value in the marketplace, as it reduced the perceived risk of investing in the company, and thus its cost of borrowing money.³⁵

As studies like these accumulate, environmentally screened investment funds will likely grow in popularity. A frontrunner is the Global Environment Fund, a private, Washington-based investment fund manager founded in 1989. In part with the help of loan guarantee agreements with OPIC, the group has raised more than \$500 million in investment capital from institutional investors for five investment funds, including two Global Environment Emerging Markets Funds, which between them now have holdings in some 10 countries in Africa, Asia, Eastern Europe, and Latin America. The principal focus of these funds is environmentally related infrastructure, including renewable energy projects and water and sewage treatment plants. A number of other green investment funds have been established over the last decade, including the Storebrand Scudder Environmental Value Fund in Luxembourg, the Sustainable Performance Group in Switzerland, and the Green Century Balanced Fund in the United States.³⁶

In many cases, green investing is part of a broader social-ly responsible financial strategy. In the United States, social-

ly responsible investing is a growth industry. Investment funds screened according to some social criteria surged from just \$162 billion in 1995 to nearly \$1.5 trillion in 1999—some 9 percent of all managed funds. The performance of these funds, like all investment funds, varies widely. Overall, however, the returns have been competitive. For instance, the Domini 400 Social, an index of socially screened firms, outperformed the Standard & Poors 500 over much of the 1990s.³⁷

Even the venerable Dow Jones index is now getting in on the act. Dow Jones Indexes and the Switzerland-based SAM Sustainability Group launched a new Dow Jones Sustainability Group Index in September 1999 composed of more than 200 “sustainability-driven” companies, which the group defines as those that seek to “achieve their business goals by integrating economic, environmental, and social growth opportunities into their business strategies.” The companies included in the new index represent 68 industries from 22 countries, with a collective total market capitalization of more than \$4 trillion. The index is currently dominated by European companies in such sectors as automobiles, paper products, food, banks, insurance, and waste management. If it had existed over the past five years, the index would have outperformed conventional indices by more than 5 percent. Financial institutions in Germany, the Netherlands, and Switzerland are already creating investment funds based on the Sustainability Group Index.³⁸

In addition to socially screened funds, another \$922 billion—more than 5 percent of managed funds—is controlled by activist shareholders who try to influence the policies of the companies in which they own shares by participating in shareholder resolutions and proxy votes, among other techniques. In 1999, concerned investors introduced 54 shareholder resolutions related to environmental issues, and some of them have already borne fruit. In one particularly

successful case, Home Depot announced a commitment to purchasing certified timber just three months after 12 percent of its shareholders asked the company to stop selling wood from old-growth forests. The shareholder resolution was one part of a broad campaign by activists to convince the company to take this step.³⁹

Green investors need better information about corporate environmental performance if financial markets are to reflect environmental risks adequately. The last several years have seen an explosion of interest in environmental reporting, but existing efforts have been poorly coordinated, leading to a proliferation of “non-standardized information reported in non-uniform formats,” according to the Coalition for Environmentally Responsible Economies (CERES). In an effort to address this deficiency, CERES launched a Global Reporting Initiative in 1997, in which corporations, NGOs, professional accounting firms, and UNEP are working together to produce a global set of guidelines for corporate sustainability reporting. The goal of the initiative is to elevate environmental reporting to the same plane as financial reporting, making it standard business practice worldwide.⁴⁰

Reforms in financial accounting rules and regulations could help accomplish this. Companies operating in the United States are required to disclose large environmental liabilities, such as hazardous waste sites, on the forms they file with the Securities and Exchange Commission (SEC). But the information varies widely in quality, with many companies submitting vague boilerplate language or no data at all. The reports are particularly sketchy about performance overseas: a 1997 survey by the Investor Responsibility Research Center found that 73 out of 97 companies with foreign operations failed to include information about their environmental track records abroad in publicly available documents such as SEC submissions. The Corporate Sunshine Group, a U.S. alliance of investors, environmental

organizations, community groups, and labor unions, is pushing the SEC to do a better job enforcing existing environmental and social disclosure rules, to broaden and deepen these requirements, and to enter into an information-sharing agreement with the U.S. Environmental Protection Agency on companies' environmental liabilities.⁴¹

As they write rules governing newly established stock markets, developing countries have an opportunity to get these policies right from the beginning. Thailand, for one, requires companies listed on the Stock Exchange of Thailand (SET) to undergo an environmental audit that includes an environmental impact assessment as well as a site visit. The SET also relaxes the stock-exchange-listing requirements for companies seeking finance for selected environmental control and prevention projects.⁴²

International discussions on a new international financial architecture have focused heavily on the need for more transparency of financial data, so that investors can assess risk better, thereby avoiding financial meltdowns. But there has been little if any acknowledgment in these discussions that environmental risks will also pose a serious threat to international stability in the new millennium. Building an environmentally sustainable global economy will require rewriting the rules of international finance to account for environmental vulnerabilities.⁴³

CHAPTER 9

STRENGTHENING GLOBAL ENVIRONMENTAL GOVERNANCE

Forging an environmentally sustainable society is about more than economics, and farsighted economics is about more than reducing restrictions on the movement of goods and money. Creating a global society fit for the twenty-first century will require not only reform of economic institutions, but also the creation of an international environmental infrastructure that can act as an ecological counterweight to today's growing economic powerhouses.

A good place to start is with the hundreds of agreements, declarations, action plans, and international treaties on the environment that now exist. Environmental treaties alone number more than 230; agreement on three fourths of them has been reached since the first U.N. conference on the environment was held in Stockholm in 1972. (See Figure 9–1.) These accords cover atmospheric pollution, ocean despoliation, endangered species, hazardous waste trade, and Antarctica, among other issues.¹

The vast majority of environmental agreements are bilateral or regional in scope, involving, for instance, the man-

agement of river systems, air corridors, or migratory bird species. However, a minority of environmental issues—including the atmosphere, international waterways, and biological diversity—are truly global. The last few decades have seen steady progress toward developing international rules governing these “global commons.” (See Table 9–1.)²

Judging from the number of treaties, environmental diplomacy appears to have been a spectacular success. And many of these accords have in fact had important results. Among other achievements, air pollution in Europe has been reduced dramatically as a result of the 1979 treaty on transboundary air pollution; global chlorofluorocarbon (CFC) production has dropped 87 percent from its peak in 1988 as a result of the 1987 Montreal Protocol on ozone depletion; the killing of elephants plummeted in Africa following a 1990 ban on commercial trade in ivory under the Convention on International Trade in Endangered Species of

FIGURE 9–1

International Environmental Treaties, 1920–98

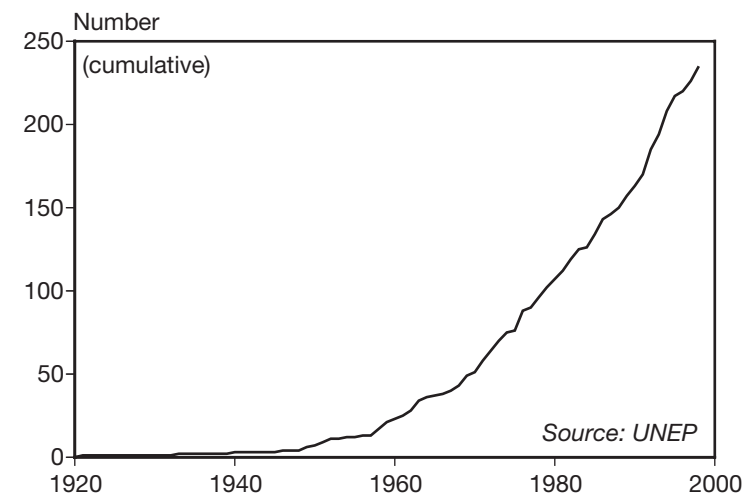


TABLE 9–1

Selected International Environmental Agreements

International Whaling Convention, 1946 (40 Parties)

Protects whales from excessive harvesting. Amended in 1992 to ban all commercial whaling of large whales from 1986 on.

Antarctic Treaty, 1959 (44 parties)

Subjects continent to joint management by original 12 parties and others who conduct scientific research there “in the interests of all mankind.” Protects Antarctica from military activities, nuclear tests, and radioactive waste imports. Protocol signed in 1991 bans mining exploration and development for 50 years, protects wildlife, regulates waste disposal and marine pollution, and provides for scientific monitoring of the continent.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 1973 (146 parties)

Restricts trade in species that are either threatened with extinction or may become endangered if their trade is not regulated. Ban passed in 1990 prohibited trade in ivory.

U.N. Convention on the Law of the Sea, 1982 (132 parties)

An umbrella agreement that provides a broad framework for ocean development and establishes 200-mile Exclusive Economic Zones (EEZs). Includes provisions on conservation of living resources of the oceans, maintenance and restoration of populations of species, and protection of the sea from pollution.

Montreal Protocol on Substances That Deplete the Ozone Layer, 1987 (172 parties)

With amendments, requires phaseout of CFCs in industrial countries by 1996 and in developing countries by 2010. Also restricts the use of several other ozone-depleting substances.

Basel Convention, 1989 (133 parties)

Controls the transboundary movement of hazardous wastes. Amended in 1995 to completely ban exports to developing countries for final disposal and recovery operations.

TABLE 9–1 (continued)

U.N. Framework Convention on Climate Change, 1992 (180 parties)

Includes target for industrial countries of stabilizing carbon dioxide emissions at 1990 levels by 2000. Requires developing countries to undertake emissions inventories and other studies. 1997 Kyoto Protocol mandates stronger emissions reductions of 6–8 percent by 2008–12 for industrial countries, in order to meet the treaty’s goal of stabilizing the overall concentration of carbon dioxide in the atmosphere.

Convention on Biological Diversity, 1992 (176 parties)

Establishes broad framework for the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the use of genetic resources. Recognizes national sovereignty over biological resources. Jakarta Mandate of 1995 addresses the protection of marine and coastal diversity.

Convention on Desertification, 1995 (159 parties)

Combats desertification by promoting “bottom up” strategies focused on sustainable management of land and water. Supplies framework for local projects, encourages national action programs, establishes mechanism to coordinate funds, and encourages trust funds.

Agreement Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995 (24 parties)

Reinforces Law of the Sea convention to address the overexploitation of high seas fisheries by prescribing a precautionary approach to fishery management. Grants parties the right to board and inspect vessels of other parties, and obligates parties to collect and share data as well as to minimize bycatch of nontarget marine species. (Not yet in force—requires 30 ratifications.)

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998 (2 parties)

Restricts the international export of 27 harmful pesticides and industrial chemicals that have been banned or severely restricted domestically, unless the importing country agrees to accept them. Creates a mechanism for information exchange. (Not yet in force—applied on a voluntary basis until 50 ratifications are obtained.)

SOURCE: See endnote 2.

Wild Flora and Fauna (CITES); the annual whale take declined from more than 66,000 in 1961 to some 1,500 today as a result of agreements forged by the International Whaling Commission; and mining exploration and development have been forbidden in Antarctica for 50 years under a 1991 accord.³

Yet even as the number of treaties climbs, the condition of the biosphere continues to deteriorate. As noted in earlier chapters, carbon dioxide levels in the atmosphere have reached record highs, scientists are warning that we are in the midst of a period of mass extinction of species, the world's major fisheries are depleted, and water shortages loom worldwide. The notoriously slow pace of international diplomacy needs to be reconciled with the growing urgency of protecting the planet's life-support systems.

Environmental treaties have so far mostly failed to turn around today's alarming environmental trends because the governments that created them have generally permitted only vague commitments and lax enforcement. Governments have also for the most part failed to provide sufficient funds to implement treaties, particularly in the developing world. Ironically, environmentalists need to take a page from the World Trade Organization (WTO) and push for international environmental commitments that are as specific and enforceable as trade accords have become.

MAKING ENVIRONMENTAL TREATIES WORK

Reaching agreement on a treaty is only the first step. The real work involves updating it continuously in light of new scientific information or changing political circumstances, and ensuring that paper commitments are translated into real policy changes in countries around the world.

Environmental treaties rely heavily on transparency as an

implementation tool. They generally require detailed reporting of actions taken at the national level to put agreements into practice. If this information is made freely available, then other countries as well as nongovernmental organizations (NGOs) can use it to shame countries into compliance.⁴

But governments often fail to provide secretariats with accurate, complete, and timely information. Only 51 percent of the parties to the Convention on Biological Diversity had submitted the required reports as of March 1998, for instance. The record is somewhat better with other accords. As of fall 1998, 83 percent of the members of the U.N. climate change convention had filed the national communications required under the treaty. And 83 percent of the parties to the Montreal Protocol on ozone depletion had reported data for 1996, although only 26 percent had submitted data for 1997.⁵

The mini-institutions set up by each treaty play a key role in the implementation process. At a minimum, each treaty spawns a conference of the parties (COP) and a secretariat. The COPs are regular meetings of treaty members; they provide an opportunity to strengthen the agreement and review problems in implementation. Secretariats are small offices set up to service these meetings of governments. Environmental conventions also commonly include scientific bodies, which provide advice on new scientific and technological information relevant to the implementation of the accord.⁶

Governments all too often give secretariats limited resources and authority. For instance, the secretariats generally do not have the wherewithal or authority to verify the information that governments are supposed to supply on implementation efforts. A typical secretariat has fewer than 20 staff and an annual budget of \$2–11 million—a drop in the bucket compared with the budgets of U.S. federal agencies charged with implementing domestic environmental laws.⁷

A notable exception is the CITES (endangered species) Secretariat, which has been granted considerable powers by governments and has used them to positive effect. It can, for example, request information from countries about alleged lapses, and demand explanations from any it believes are falling short of meeting treaty obligations. Nevertheless, limited resources have prevented the secretariat from making full use of its authority.⁸

The scattered locations of the secretariats poses an added challenge. For instance, the secretariat for the ozone treaty is in Nairobi; the climate change treaty's office is in Bonn; and the biodiversity treaty secretariat is in Montreal. The U.N. Environment Programme (UNEP) has been granted control over some of these administrative groups; others report to different U.N. agencies. Centralizing these bodies under one roof would offer opportunities for the exchange of information and ideas, thereby making international environmental governance more efficient. In Agenda 21, governments cautiously endorsed the idea of centrally located convention secretariats, but in practice they have been reluctant to follow through on this. Although a small amount of consolidation has taken place in Geneva, further efforts in this direction have run afoul of the desires of individual countries to house these offices in order to enhance their own prestige.⁹

Although transparency is a powerful enforcement tool, in some cases stronger medicine is required. Trade restrictions can play an important role in encouraging countries to participate in international environmental accords, or to abide by those they have signed on to. But the use of trade levers as an enforcement tool is controversial, given the possible conflict with WTO rules. (See also Chapter 7.)

The use of unilateral environmental trade measures is particularly controversial. Such restrictions have been used in several cases to strengthen multilateral accords. Under a

U.S. law known as the Pelly Amendment, the government is authorized to impose trade sanctions against countries whose nationals are known to be diminishing the effectiveness of international fishery or wildlife agreements. Though the sanctions have rarely been invoked, the threat that they might be has helped to strengthen a number of international accords. For example, it helped secure the participation of Japan and Taiwan in the 1993 U.N. moratorium on destructive driftnet fishing, and also helped convince Japan to stop importing endangered sea turtles for use in jewelry and eye-glass frames, which is forbidden under CITES.¹⁰

Multilateral agreements themselves at times either stipulate or authorize trade restrictions. The Montreal Protocol on ozone depletion, for example, restricts signatories from trading in CFCs and products containing them with countries that have not joined in the accord. These provisions are widely credited with helping to bring about near universal participation in this landmark treaty. The Basel convention on hazardous waste export also restricts trade in wastes with countries that are not members of the accord. And CITES is empowered to recommend that members suspend wildlife trade with countries identified as out of compliance with the treaty's terms. It did just that regarding China, Italy, Taiwan, and Thailand in the early 1990s, and Greece in 1998. Where the sanctions have been imposed, as they were by the United States against Thailand in 1991 and against Taiwan in 1994, they have generally prompted stronger government enforcement of CITES.¹¹

The conflicts between international trade rules and the provisions of some multilateral environmental agreements (MEAs) have been the subject of extensive discussion in recent years at the WTO's Committee on Trade and Environment. Although no country has ever lodged a formal WTO protest against an MEA, the potential for such challenges clearly exists. Even without one, worries about

inconsistencies with WTO rules undoubtedly enter into the calculus of environmental treaty negotiators, dissuading them from using tools that would give teeth to environmental accords.¹²

One solution to this problem would be to amend the environmental exceptions to the WTO to clarify that trade measures taken pursuant to MEAs should be protected from challenge at the trade body. A precedent for this approach is provided by the North American Free Trade Agreement, which stipulates that in cases where its provisions conflict with those of three “grandfathered” environmental treaties (the Basel Convention, CITES, and the Montreal Protocol), the environmental treaty shall prevail. Although the European Commission once put forth a proposal roughly along these lines aimed at protecting MEAs from WTO challenge, it was not widely supported by other governments. The United States has in fact pushed for just the opposite approach in recent environmental treaty negotiations, where it has argued for clauses that clarify that nothing in the agreement should be construed as superseding pre-existing international obligations, including WTO rules.¹³

FINANCING CHALLENGES

Although the punitive approach embodied by penalties and sanctions has its place, it is not always appropriate or effective. Shortages of financial and technological resources, more than a lack of will, render many developing countries unable to comply with some treaty requirements. Thus a critical issue for the success of most treaties is whether adequate funding is made available to help developing countries make the investments required to meet the treaty’s terms. The ozone treaty was the first environmental accord to create a sizable fund for this purpose. (See Chapter 6.)

With this model in mind, countries created the Global

Environment Facility (GEF) on an interim basis in 1991 to finance investments in preserving the global commons—the atmosphere, biological diversity, and international waterways. The GEF is a funding mechanism for both the biological diversity and the climate change treaties. In March 1994, governments agreed to make the GEF permanent, and to replenish it with \$2 billion in new resources to be spent over four years; in 1998, countries committed another \$2.8 billion to continue funding into the next century. As of June 1999, the facility had allocated some \$2.5 billion in grants—39 percent for biological diversity preservation, 36 percent for climate-related initiatives, 15 percent to protect international waters, 6 percent for projects aimed at heading off ozone depletion, and 4 percent for overarching projects.¹⁴

The GEF is an innovation in global governance, as it bridges the United Nations and Bretton Woods systems. Not wanting to create an entirely new institution, governments decided to make the GEF a joint undertaking of the U.N. Development Programme (UNDP), UNEP, and the World Bank. UNDP is charged primarily with carrying out technical assistance and capacity-building projects and with implementing a program of small grants to NGOs. UNEP is responsible for advancing environmental management at the regional and global levels, and with providing scientific and technical advice. And the World Bank is responsible for developing and implementing most investment projects, for mobilizing resources from the private sector, and for serving as the trustee for the GEF trust fund. In recent years, GEF has begun to work more with other partners in executing its projects, including regional development banks, NGOs, and the private sector.¹⁵

GEF’s governing council employs an unusual “double majority” voting structure. Under this system, decisions are normally made by consensus. But in cases where this proves impossible and a matter is put to a vote, two consecutive tal-

lies are required—the first on the basis of a one-nation, one-vote system similar to that used at the United Nations, and the second by a one-dollar, one-vote system comparable to that of the Bretton Woods institutions. This voting arrangement is intended to make the facility a joint undertaking of donors and recipients—a novel concept that offers a useful model for the governance of other international institutions.¹⁶

In April 1998, representatives of 119 member governments, 16 international organizations, and 185 NGOs gathered in New Delhi for the first full assembly of GEF members. On the table was an study of the fund's overall effectiveness that had been prepared by an independent team of consultants. The report raised several concerns about the GEF's performance, and offered recommendations for change.¹⁷

One controversial issue highlighted by the evaluation report is the facility's mandate to finance only the "incremental," or extra, costs to countries of investing in projects of global benefit, above and beyond the costs they would otherwise expect to encounter in their development. This requirement frustrates recipient countries, who resent the tendency of donor states to be more concerned about responding to abstract global threats than about addressing urgent local environmental needs. The incremental cost concept can also foster the false notion that activities such as preserving biological diversity, investing in renewable energy, and preventing coastal pollution are not worth pursuing out of national and local self-interest alone. To avoid the danger of serving as a disincentive for investing in projects that offer global and local benefits at the same time, the calculation of incremental costs is best viewed as a loose guiding concept rather than a precise operational procedure in the implementation of GEF projects.¹⁸

Given its limited resources, a key question for the GEF is how it can leverage these funds in support of broader efforts

to reorient both national policies and other international financial flows in support of environmentally sound development strategies. One longstanding concern about the GEF is that merely by virtue of its existence the organization reduces pressure on the U.N. agencies and the Bank to integrate environmental issues broadly throughout their far larger overall lending programs. The evaluation report found reason for concern that this was in fact happening, particularly at the World Bank, which recently spent more in one year on carbon-emitting fossil fuel projects (\$2.3 billion) than the GEF's entire replenishment for 1994–98.¹⁹

In order to maximize its influence, the GEF has been working over the last several years to increase its involvement with the private sector. In particular, it cooperated with the International Finance Corporation (IFC) to spearhead the creation of two private capital funds: a biodiversity fund for Latin America dubbed the Terra Capital Fund that has \$15 million to finance sustainable forestry and agriculture programs and ecotourism projects, and a \$100–240 million private capital fund promoting energy efficiency and renewable energy projects worldwide. Another promising joint GEF-IFC program channels funds through environmental NGOs, nonprofit venture capital firms, and other intermediaries to a range of small-scale, environmentally sound enterprises. Projects in renewable energy, energy efficiency, sustainable forestry and agriculture, and ecotourism are the funding targets. The program was originally capitalized at \$4.3 million. It has now been expanded with an additional \$16.5 million and will involve some 100 different projects when fully up and running.²⁰

The Clean Development Mechanism (CDM) set up under the Kyoto Protocol is another creative effort to harness private capital for the implementation of international environmental commitments. Under the CDM, countries will be able to receive emissions credits for climate-friendly investments

undertaken in developing countries that are in addition to those they would have undertaken in any case. There are many practical difficulties in certifying and monitoring these programs—problems similar to those encountered in putting into practice the “incremental cost” requirement for GEF projects. Governments are in the process of working out important details of the Clean Development Mechanism. Although the CDM holds promise as a way to harness private capital toward climate-protecting investments in the developing world, care needs to be taken in writing its rules to prevent it from being misused by governments and companies trying to evade reduction commitments.²¹

INSTITUTIONALIZING GLOBAL ENVIRONMENTAL PROTECTION

Although the proliferation of environmental treaties over the last few decades is an encouraging development, part of the price of success has been a measure of duplication and inefficiency. Rather than a cohesive system for the environment, what the world has is a patchwork quilt. This disorganized system needs to be streamlined if it is to become capable of reversing ecological decline.

The U.N. Environment Programme was intended to be the linchpin of international environmental cooperation when it was created in 1972 at the U.N. Conference on the Human Environment in Stockholm. At that time, the important role that independent environmental agencies play at the national level had yet to be demonstrated. Rather than creating a full-fledged U.N. environment agency, governments instead charged UNEP with catalyzing environmental activities throughout the U.N. system, including at much larger U.N. specialized agencies such as the Food and Agriculture Organization and the World Health Organization. Because UNEP was not to engage in projects of its own, gov-

ernments decided that only a small staff was needed. UNEP's architects created an “environment fund” as a main tool through which the agency was to catalyze environmental initiatives throughout the United Nations.²²

But governments failed to deliver on their promises of significant resources for the environment fund. In its first two decades, UNEP's total resources amounted to some \$1 billion, less than UNDP's annual budget. UNEP's budget today—just under \$100 million a year—is comparable to the budgets of some private environmental groups. UNEP is significantly smaller than most other U.N. agencies, and its resources pale in comparison to the lending programs of the World Bank and the International Monetary Fund. (See Table 9–2.) Another problem is UNEP's location in Nairobi, far from the other agencies it is theoretically coordinating.²³

Despite these handicaps, UNEP has had its share of successes since 1972. It has played a central role in the negotiation of numerous environmental action plans and treaties, including a successful program that has developed action plans for the shared management of 14 regional seas, and the Montreal Protocol on ozone depletion. The organization's Division of Technology, Industry, and Economics, located in Paris, has been an important source of technical advice on waste-minimizing technologies and on the prevention of industrial accidents. In recent years, UNEP's regional offices have been strengthened, giving the agency a presence in Bangkok, Geneva, Mexico City, Manama (in Bahrain), and soon in Washington.²⁴

UNEP's governing council clarified the program's role and mandate in a February 1997 Nairobi Declaration. Among the functions identified were monitoring and assessing global and regional environmental trends; further developing international environmental law, in part by encouraging coherence among the environmental conventions; promoting implementation of existing international agreements; better

coordinating the environmental activities of the U.N. system as a whole; spearheading cooperation among various sectors of society involved with international environmental issues, including linking the scientific community with policymakers; and helping governments build environmental institutions. Since taking office in early 1998, UNEP Executive

TABLE 9–2

Estimated Expenditures and Staffing of Various International Agencies, 1998¹

Agency	Staff (number)	Expenditure (million dollars)
World Bank	9,262	28,594
International Monetary Fund	2,196	27,495 ²
U.N. Development Programme	5,300	2,131
World Health Organization	3,498	900
U.N. Children's Fund	5,594	882
Food and Agriculture Organization	3,599	595
U.N. Education, Scientific, and Cultural Organization	2,200	405
International Atomic Energy Agency	2,221	274
International Labour Organisation	1,788	248
U.N. Population Fund	972	217
U.N. Industrial Development Organization	755	158 ³
U.N. Environment Programme	486	93
World Trade Organization	500	83 ⁴
World Meteorological Organization	246	56 ⁴
International Maritime Organization	300	28

¹Expenditures reflect disbursement, lending, or budget figures, and are for 1998, except International Atomic Energy Agency (1997) and WTO (1999). Multiyear figures were divided evenly to obtain one-year equivalent. See endnote for more details. Includes professional and general service staff. ²Converted from SDR at the exchange rate of SDR1 = US\$1.38, on 7 December 1999. ³Does not include funding for technical cooperation. ⁴Converted from Swiss francs at the exchange rate SFr1 = US\$0.6545, on 24 June 1999.

SOURCE: See endnote 23.

Director Klaus Töpfer has taken steps to integrate these priorities into the organization's program.²⁵

UNEP's recent reforms hold promise, but many observers argue for more far-reaching steps to raise the prominence of environmental issues within the United Nations. One idea now gaining political currency is to upgrade UNEP into a World Environment Organization (WEO) on a par with the WTO. Some will argue—as they did when UNEP was created in 1972—that establishing a strong environment agency would take pressure off the other U.N. agencies to integrate environmental considerations into their programs. But such integration is needed at the national level as well, and experience suggests that the existence of strong domestic environment agencies has promoted rather than discouraged it.²⁶

Upgrading the status of environmental issues within the U.N. system is long overdue. Still, it is important that debates over form not distract from the ultimately far more important questions of function. In addition to UNEP's current roster of functions, a World Environment Organization could usefully serve as an umbrella for the current scattered collection of treaty bodies, just as domestic environment agencies oversee the implementation of national environmental laws. UNEP is already working to promote synergies and coordination between the environmental conventions. Bringing the treaty bodies under one roof could improve the opportunities for bargaining and facilitate NGO access. But in order for the WEO to have the clout it needs, the treaties themselves must stipulate strong enforcement capacities, and the institution would need to be endowed with sufficient financial resources to catalyze innovative programs.²⁷

Although far from perfect, a precedent is provided by the International Labour Organisation (ILO), which constantly modifies and strengthens the hundreds of standards it has issued on concerns such as workplace safety and child labor. The ILO also reviews whether members are complying with

its standards and provides countries with technical assistance to help them with this task. It often generates enough pressure in a first, investigative stage to bring an errant country into line, making its second stage—a public hearing to explain delinquency—unnecessary. Representatives from both management and labor actually form part of the governing body of the ILO, through a unique tripartite system in which they share equal standing with governments.²⁸

THE UNITED NATIONS AND SUSTAINABLE DEVELOPMENT

Beyond a stronger U.N. environment agency, it is also essential that environmental concerns be integrated widely throughout all U.N. activities. Many agencies are already important players in the environmentally sustainable development arena.

At the Rio Earth Summit in 1992, governments entrusted the U.N. Development Programme with promoting “capacity building” for sustainable development by helping countries design appropriate policies and strengthen the domestic institutions required to implement them. Two years later, UNDP created a Sustainable Energy and Environment Division (SEED) to consolidate the agency’s environmental initiatives, including work on capacity building, energy and atmosphere issues, the GEF, natural resources management, and desertification. SEED is also charged with infusing a concern for environmentally sound development throughout the agency’s programs.²⁹

Numerous other U.N. agencies are also active on the environment and sustainable development. The World Meteorological Organization has made important contributions to improved understanding of the complexities of climate science through its cosponsorship of the Intergovernmental Panel on Climate Change. The World Health

Organization promulgates air and water pollution guidelines that are considered the international norm. The U.N. Food and Agriculture Organization is actively involved in promoting sustainable agriculture projects and in protecting dwindling fisheries. And the U.N. Population Fund oversees implementation of the groundbreaking action plan produced in 1994 at the International Conference on Population and Development in Cairo.³⁰

Another important U.N. player is the Commission on Sustainable Development (CSD). Created at the Earth Summit in 1992, the CSD serves as a forum where governments and nongovernmental participants review progress in implementing Agenda 21, share information about what works and what does not, and discuss impediments such as inadequate financial resources or lack of access to innovative technologies. The CSD was given the task of monitoring the activities of national governments, international organizations, and private actors.³¹

National and local governments alike have used the CSD to share information about successes and failures in implementing the Rio accords at national and local levels. Agenda 21 called on all nations to devise national sustainable development strategies, and by December 1999 a total of 140 had created national organizations or governmental units charged with implementing Agenda 21. There is also a growing movement worldwide to create sustainable cities and communities. The Toronto-based International Council for Local Environmental Initiatives is spearheading a campaign to promote the adoption of local Agenda 21s or similar undertakings. More than 2,000 cities in 64 countries—including Buga, Colombia; Quito, Ecuador; and Lahti, Finland—already have such initiatives under way.³²

Governments have used the CSD to exchange views on contentious topics that cut across traditional issue dividing lines. For instance, the commission has considered the role

of trade and finance in sustainable development, as well as the question of changing unsustainable production and consumption patterns. It is also working to encourage governments to develop and use sustainable development indicators to supplement traditional reliance on national income accounts. The CSD has proved useful as a launching pad for several important initiatives, including an intergovernmental panel on forests and a review of voluntary industry environmental initiatives.³³

Perhaps most important, the CSD brings together a range of stakeholders on an annual basis to take stock of progress in putting the Rio agreements into practice. Since the first CSD session in 1993, the number of nongovernmental participants from around the world attending the annual forums has quadrupled, reaching some 800 in 1999. High-level government ministers, local officials, business organizations, farmers, and indigenous peoples, among others, have all participated. Together, these diverse players have helped push forward action on such issues as forests, oceans, production and consumption, tourism, trade, and finance.³⁴

All these developments are to the good. Yet as the number of international environmental meetings proliferates, the ecological health of the planet continues to deteriorate. Almost 10 years after the Rio Earth Summit, a framework of international environmental governance has begun to emerge. The time has now come to move beyond the framework and construct the edifice itself.

CHAPTER 10

PARTNERSHIPS FOR THE PLANET

One of the great ironies of the demonstrations at the World Trade Organization (WTO) meeting in Seattle in late 1999 is that the massive protests against one form of globalization were facilitated by another dimension of the same process—the revolution in information and communications technologies. Just as these technologies have helped corporations go global, so have they facilitated powerful new forms of international activism by citizens' groups: “The Internet has become the latest, greatest arrow in our quiver of social activism,” Mike Dolan, an organizer of the Seattle protests, told the *Los Angeles Times*.¹

As the breakdown of the Seattle talks demonstrated, civil society has become strong enough to stop global economic negotiations in their tracks. But the more important question may be whether it can now harness that strength to build a new kind of global governance from the ground up. A nascent system of international environmental governance is already beginning to emerge from diverse quarters, proving that governance is no longer just for governments.

Reversing ecological decline in the early decades of the new century will require innovative partnerships between many different actors, including nongovernmental organizations (NGOs), businesses, governments, and international organizations.²

NGOs RISING

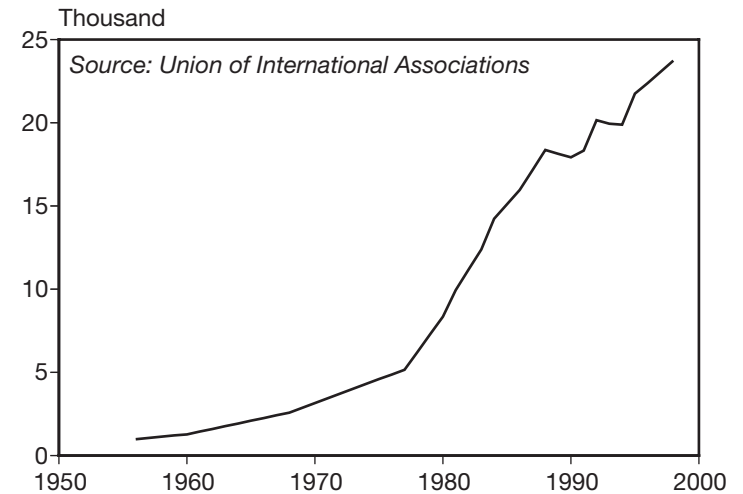
The last few decades have seen a flowering of nongovernmental environmental activism at the national and grassroots levels around the world. There are now tens of thousands of environmentally related NGOs, most of which have been formed since the 1980s. Growth has been particularly rapid in many parts of the developing world and in Eastern Europe, where democratization has opened up political space for NGOs and where mounting environmental problems have generated pressure for change.³

The number of NGOs working across international borders soared during the last century, climbing from just 176 in 1909 to more than 23,000 in 1998. (See Figure 10–1.) Environmental groups have risen steadily as a share of the total, climbing from just 2 percent of all transnational social change NGOs in 1953 to 14 percent in 1993.⁴

Some of these organizations—such as Friends of the Earth, Greenpeace, and the World Wide Fund for Nature (WWF)—are themselves international, representing global bases of support rather than parochial national interests. They answer to constituencies sizable enough to rival the populations of some nations: WWF has nearly 5 million members, and Greenpeace has 2.5 million. Empowered by e-mail and the Internet, NGOs have gradually organized themselves into a range of powerful international networks, such as the Women’s Environment and Development Organization, the World Forum of Fish Workers & Fish Harvesters, and the Climate Action Network. (See Table 10–1.) Taken

FIGURE 10–1

Number of International NGOs, 1956–98



together, all this activity adds up to the creation of a bona fide global environmental movement that is rapidly becoming as influential at the international level as it already is within many countries.⁵

The last few years have seen some high-profile NGO successes. In one powerful demonstration of NGO clout, a coordinated campaign in 1998 to expose the environmental deficiencies of a proposed Multilateral Agreement on Investment (MAI) was successful in bringing the agreement to a halt, at least for the time being. Activists used the Internet to post and publicize the previously secret draft agreement, which aimed to lower obstacles to foreign investment just as the WTO eases the way for global trade. But NGOs exposed a number of provisions in the draft agreement that could have constrained governments’ ability to minimize the environmental damage and social disruption of foreign investment projects. Some governments have been trying to revive

TABLE 10-1

Selected International Environmental NGO Networks

BirdLife International (created in 1922)

Global Reach: Links bird and habitat conservation organizations in 60 countries, with representatives in 27 additional countries.

Mission/Goal: To conserve bird species and their habitats and to identify priorities for bird and biodiversity conservation through research and data collection, grassroots efforts, and coordinated policies, campaigns, and programs.

International Federation of Organic Agriculture Movements (IFOAM) (1972)

Global Reach: Includes more than 500 member organizations in 100 countries.

Mission/Goal: To develop organic agriculture by working with producers, processors, and traders throughout the world.

Pesticide Action Network (PAN) (1982)

Global Reach: Links some 520 consumer, environment, health, labor, agriculture, and public interest groups worldwide.

Mission/Goal: To encourage the replacement of pesticides with ecologically sound alternatives and to promote more effective pest management through education, media, and advocacy.

International Rivers Network (IRN) (1985)

Global Reach: Links and mobilizes river activists worldwide via a global network of supporters, funders, advisors, interns, and volunteers.

Mission/Goal: To halt and reverse the degradation of river systems, to promote alternatives to dams and channeling, and to help protect and restore the well-being of the peoples, cultures, and ecosystems that depend on rivers, through research, analysis, and campaigning.

Climate Action Network (CAN) (1989)

Global Reach: Links more than 250 international groups and national organizations, organized into regional networks and represented by seven regional focal points.

Mission/Goal: To promote government and individual action to limit human-induced climate change to sustainable levels by coordinating information exchange, formulating policy options and position papers, and collaborating to promote effective NGO action on climate issues.

Women's Environment and Development Organization (WEDO) (1990)

Global Reach: Links a culturally and ideologically diverse group of women activists and experts worldwide.

Mission/Goal: To increase the participation of women in decisionmaking in public-policy institutions such as the United Nations and to achieve social, political, economic, and environmental justice through the empowerment of women.

Biodiversity Action Network (BIONET) (1993)

Global Reach: Currently composed of U.S. NGO members, but joins in cooperative projects worldwide and expects eventually to expand globally.

Mission/Goal: To advocate the effective implementation of the Biodiversity Convention worldwide, primarily through coordinated, joint NGO programs and information dissemination designed to catalyze governmental action.

International NGO Network on Desertification and Drought (RIOD) (1994)

Global Reach: Connects NGOs and community-based organizations worldwide via 16 focal points on six continents.

Mission/Goal: To improve the effectiveness of NGOs in their efforts to fight desertification through the exchange of information, expertise, and ideas.

World Forum of Fish Workers & Fish Harvesters (WFF) (1995)

Global Reach: Links fish harvesters, fish workers, and women from artisanal and small-scale fishing communities via regional councils on six continents.

Mission/Goal: To protect the rights and livelihood of fish workers while also promoting sustainable fishing methods and greater industry and government compliance with international fisheries agreements.

International POPs Elimination Network (IPEN) (1997)

Global Reach: Currently active on six continents; expects to gain the endorsement and participation of hundreds of NGOs worldwide.

Mission/Goal: To facilitate information exchange and to support the activities of members who share a common interest in achieving the global elimination of persistent organic pollutants.

SOURCE: See endnote 5.

the negotiations under the umbrella of the WTO, but the outcome of the Seattle meeting suggests that this is unlikely to happen anytime soon.⁶

Another genre of NGO activism is aimed directly at corporate decisionmakers rather than at international diplomats. In one example of this approach, Greenpeace seized headlines in 1995 when it successfully mobilized a consumer boycott of Shell gas stations, forcing the gargantuan multinational company to give up its plans for dumping the *Brent Spar*, an abandoned oil rig, in the North Atlantic Ocean. A few years later, MacMillan Bloedel, one of Canada's largest forest products companies, agreed to stop clearcutting in British Columbia after a campaign by Greenpeace and other groups to boycott products made from clearcut timber convinced the company that the environmental stigma of such a form of logging could devastate its European market.⁷

Monsanto and other large producers of transgenic seeds now find themselves in a similar position, as organized opposition to genetically modified organisms (GMOs) by European environmentalists has stymied their plans to introduce genetically modified foodstuffs in Europe. The waves of opposition have rippled back across the Atlantic, and U.S. grain exporters began in late 1999 to ask farmers to grow segregated non-GMO crops. In October 1999, Monsanto Chairman Robert Shapiro addressed his foes at a Greenpeace business conference in London, where he admitted that the company had not consulted sufficiently with its critics, and pledged to enter into such discussions "openly, honestly and non-defensively" in the future.⁸

Perhaps the strongest proof of the growing strength of citizens' movements is the seriousness with which the international business community now views them. A 1997 report by the Control Risks Group, a London-based firm that advises businesses on political and security risks, discusses

the need for companies to obtain a social "license to operate," and describes "the pressure on companies, wherever they operate, to adopt the highest international environmental, labour and ethical standards." According to the report, "heightened international scrutiny means that perceived transgressors truly have 'no hiding place'."⁹

OPENING UP INTERNATIONAL INSTITUTIONS

International treaties and institutions have traditionally been viewed as compacts among sovereign nations. Individual citizens were granted no formal role in the international legal system, but were instead expected to make their voices heard by influencing the policies of their own national governments, thereby affecting the positions these governments advocate in international forums.¹⁰

But this theory is increasingly breaking down. Both environmental organizations and business groups now exert a direct and powerful influence in a broad range of international negotiations and institutions. U.N. conferences and the sessions in which environmental treaties are negotiated are all routinely attended by scores of NGOs from all over the world. International institutions such as the U.N. Commission on Sustainable Development (CSD), the Global Environment Facility, the World Bank, and the World Trade Organization are the subject of intense NGO interest and scrutiny. All these organizations have by now developed procedures—some more participatory than others—for interacting with the nongovernmental community.¹¹

Despite the recent growth in interaction between NGOs and international institutions, the relationship is often strained. Citizens' groups working at the global level face formidable obstacles. There is as yet nothing resembling an elected parliament at the international level. Although the

United Nations has begun to experiment with occasional public hearings on topics of special concern, these continue to be rare events. No formal provisions are made for public review or comment on international treaties, nor is there a mechanism for bringing citizen suits at the World Court. International negotiations are often closed to public participation, and access to documents of critical interest to the public is generally restricted.¹²

Officials and government representatives, for their part, sometimes grow frustrated with NGOs. The confrontational tactics of some groups, such as the effort to delay the opening of the WTO meeting in Seattle, antagonize government officials. And the growing role of NGOs in international forums raises difficult issues of accountability. NGOs, unlike democratic national governments, cannot claim the legitimacy conferred by the ballot box. Their sources of credibility and support are more complex, deriving from factors such as unique knowledge or experience.¹³

Much of the NGO activity in international environmental policymaking dates to the June 1992 Earth Summit, which was a watershed for the democratization of global environmental governance. The 20,000 concerned citizens and activists who attended the Rio conference from around the world outnumbered official representatives by at least two to one.¹⁴

The Agenda 21 action plan produced at the Earth Summit encourages the democratization of international policymaking by focusing on the important role of “major groups” (including citizens’ groups, labor unions, farmers, women, business interests, and others) and by endorsing the need to make information freely and widely available. In an important precedent, the Commission on Sustainable Development based its rules for NGO participation on the liberal regulations that were in effect for the Rio conference. As a result, hundreds of groups are authorized to observe CSD

deliberations and make selective interventions. An international NGO Steering Committee promotes collaboration among these groups and facilitates interaction with the CSD secretariat as well as with governments.¹⁵

Daily newsletters produced by citizens’ organizations, including *Eco* and the *Earth Negotiations Bulletin*, have now become mainstays of the international negotiating process. Widely read by official delegates and NGOs alike during international meetings, they reveal key failures in negotiations and prevent the obscure language of international diplomacy from shielding governments from accountability for their actions.¹⁶

The business community is also becoming a growing force in international environmental negotiations—for both good and ill. Its strong presence is now felt in many different international environmental forums, including those on climate change, biological diversity loss, and the control of persistent organic pollutants.

In the climate change negotiations, a number of U.S.-based companies, including coal and oil businesses, that maintain they would suffer under the treaty have participated in the Global Climate Coalition, a group that opposes the Kyoto Protocol. But other business groups are enthusiastically in favor of a strong accord. Business councils for sustainable energy have been formed over the last several years in Australia, Europe, and the United States; they include appliance manufacturers and renewable energy, energy services, cogeneration, and natural gas companies that have calculated that a strong climate treaty would help their bottom lines. The insurance industry has also become a convert to the cause, as it is worried that extreme weather disturbances caused by climate change could translate into steeply rising claims. (See Chapter 6.)¹⁷

Parliamentarians are another potentially powerful group of players on the global stage. The Global Legislators Orga-

nization for a Balanced Environment (GLOBE) was founded in 1989 to promote cooperation between parliamentarians on global environmental issues. It now has more than 700 members from more than 100 countries, with regional affiliates in Brussels, Capetown, Moscow, Tokyo, and Washington, DC. GLOBE has been active in a range of international policy debates, including those on climate change and the WTO.¹⁸

Despite the many advances that NGOs have made at the United Nations over the last several years, frustrations remain. One problem is the scarcity of opportunities to participate in the activities of standing U.N. bodies, including the General Assembly and the Security Council. And security restrictions imposed on NGO access to the U.N. premises over the last few years have made it increasingly difficult to lobby delegates directly. The New York-based Global Policy Forum charges that despite Secretary-General Kofi Annan's lofty speeches about the role of NGOs, his Secretariat has restricted their involvement through new rules, regulations and fees.¹⁹

Pressure is growing for the United Nations to take bold steps to formalize the growing importance of NGOs. Some proposals envision creating a new assembly within the world body where the views of the people of the world could be more directly represented than under the current system. One model for such an assembly is the directly elected European Parliament. A more feasible approach might be to create a body composed of representatives of national parliaments—perhaps as a transition to a full-fledged peoples' assembly. A "Millennium Forum" at the United Nations in May 2000 will bring together NGO representatives from around the world and other representatives of civil society to consider how the sector's energies can best be harnessed to confront the global challenges of the twenty-first century. The forum will consider, among other items, whether a new

organizational structure is needed to aid citizen participation in global decisionmaking.²⁰

As the outcry in Seattle made clear, bold actions are also needed at global economic institutions to make them more open and accountable. Information and documents at these organizations are often tightly guarded, and negotiations between governments are completely closed to observers, with no NGO newsletters offering blow-by-blow accounts of who said what to whom.

President Bill Clinton told delegates in Seattle that "if the WTO expects to have public support grow for our endeavors, the public must see, and hear, and...actually join in the deliberations. That's the only way they can know the process is fair and know their concerns were at least considered." Despite this plea, many countries resisted making the WTO's operations more transparent. Before the talks broke down in Seattle, some limited progress was made on allowing more documents to be declassified. But no consensus was reached on opening the controversial dispute resolution panels to public observation, or on allowing NGOs to submit "friend of the court" briefs.²¹

The World Bank, in contrast, has taken some important steps over the last several years to make its activities more accountable. In the early 1990s, the Bank adopted an information disclosure policy that, while by no means perfect, has made many more Bank documents publicly available. And the creation of an independent inspection panel in 1994 set an important precedent by providing an impartial forum where board members or private citizens can raise complaints about projects that violate the Bank's own policies, rules, and procedures. The International Finance Corporation has recently appointed an environmental and social Compliance Advisor/Ombudsman to serve a similar function for private-sector projects.²²

Even the notoriously secretive International Monetary

Fund has moved to make more documents available to the public. But this organization still has a long way to go in learning how to listen to society at large when designing its lending programs.²³

FORGING A NEW GLOBAL COMPACT

In January 1999, U.N. Secretary-General Kofi Annan addressed the World Economic Forum in Davos, Switzerland, an annual gathering of corporate titans and other members of the global elite. While acknowledging that globalization was now a fact of life, Annan noted that the spread of global markets was outpacing the ability of societies and their political systems to adjust to them, “let alone to guide their course.” He called on the business leaders present in Davos to work with the United Nations to forge a new global compact that would “embrace, support and enact a set of core values in the areas of human rights, labour standards, and environmental practices.”²⁴

In the environmental realm, several business initiatives along these lines are already well under way. Many multinational corporations already adhere to roughly uniform environmental policies and standards throughout their worldwide operations. And a number of international industry groups have now crafted voluntary codes of environmental conduct; many of them call for companies to approximate the standards of their home countries wherever they do business, which is more practical in any case than operating in numerous different ways around the world. Meeting international environmental criteria also allows companies to trumpet green credentials, which are of growing value in the international marketplace. An additional impetus for maintaining strict internal corporate environmental policies is a desire to avoid adverse publicity—as well as recognition of the growing tendency for costly law-

suits to be filed in home-country courts for alleged environmental transgressions overseas.²⁵

Over the last few years, some 10,000 companies worldwide, many from developing countries, have become certified under the voluntary environmental management guidelines forged by the Geneva-based International Organization for Standardization, a worldwide federation of national standards-setting bodies. The first set of standards in this “ISO 14000” series was finalized in the fall of 1996. It covers internal management and auditing procedures—how, for instance, a company should monitor its pollution. These management guidelines are not to be confused with actual performance standards that would specify, for example, what levels of pollution would be acceptable. But they are nonetheless a useful tool.²⁶

Another type of international standard setting is embodied in the numerous independent eco-labeling initiatives now beginning to take hold. The organic agriculture community was a pioneer in this field. In the early 1970s, it came together through the International Federation of Organic Agriculture Movements to lay out the conditions that farmers must meet in order to claim organic credentials. More recently, the Forest Stewardship and Marine Stewardship Councils were formed to devise criteria for sustainable timber and fish harvesting. (See Chapters 2 and 4.) One strength of these efforts is the diverse range of stakeholders they bring to the table, including businesses, NGOs, and often governments and international organizations. In effect, these initiatives are defining sustainability criteria for the global economy.²⁷

Although globalization is reducing the ability of governments to regulate activities within their borders, it is also opening the way for a number of innovative public-private partnerships such as those just described. Political economist Wolfgang Reinicke argues that such collaborations are

planting the seeds of a new system of international governance based on global public policy networks among diverse actors, including international organizations, business, labor, and NGOs. Although such partnerships will not substitute for governments in the decades ahead, they could play a key role in helping to bring together the various players needed to solve diverse aspects of the planet's ecological predicament.²⁸

Thirty years ago, photographs of Earth taken from space by the Apollo expeditions indelibly impressed on all who saw them that the planet, while divided by political boundaries, is united by ecological systems. These photos helped inspire the first Earth Day, which in turn motivated numerous countries to pass environmental laws and create environmental ministries. This year, the world will celebrate Earth Day 2000. A comparable groundswell is needed in support of the innovations in global governance that will be required to safeguard the health of the planet in the new millennium.

CHAPTER 7. TRADE WARS

1. "U.S. Imposes Sanctions in Beef Fight," *New York Times*, 19 July 1999; "EU Questions U.S.-Canadian Retaliation Request in Beef Dispute," *BRIDGES Weekly Trade News Digest*, 19 July 1999.

2. "Big Mac Targeted by French Farmers," *BRIDGES Weekly Trade News Digest*, 30 August 1999; Anne Swardson, "Something Is Rotten in Roquefort," *Washington Post*, 21 August 1999.

3. World Trade Organization (WTO), "Agreement on the Application of Sanitary and Phytosanitary Measures," in *Final Act: Agreement Establishing the World Trade Organization*, <www.wto.org/wto/legal/finalact.htm>, viewed 7 December 1999. See also Jeffrey S. Thomas and Michael A. Meyer, *The New Rules of Global*

Trade (Scarborough, ON, Canada: Carswell, 1997).

4. Thomas and Meyer, *op. cit.* note 3; Public Citizen, "Comments of Public Citizen, Inc. Regarding U.S. Preparations for the World Trade Organization's Ministerial Meeting Fourth Quarter 1999," comments to the U.S. Trade Representative, 22 October 1998, <www.consumerscouncil.org>, under "Other Policy Issues," viewed 7 December 1999.

5. James Cameron and Julie Abouchar, "The Status of the Precautionary Principle in International Law," in David Freestone and Ellen Hey, eds., *The Precautionary Principle and International Law: The Challenge of Implementation* (The Hague: Kluwer Law International, 1996); Rio Declaration from Lakshman Guruswamy, Geoffrey Palmer, and Burns Weston, *International Environmental Law and World Order* (St. Paul, MN: West Publishing, 1994); WTO provisions from WTO, *op. cit.* note 3, and from Thomas and Meyer, *op. cit.* note 3.

6. For the historical backdrop to the beef hormone case, see U.S. Office of Technology Assessment, *Trade and Environment: Conflicts and Opportunities* (Washington, DC: U.S. Government Printing Office, May 1992). For more recent events, see Paul Jacobs, "U.S., Europe Lock Horns in Beef Hormone Debate," *Los Angeles Times*, 9 April 1999, and Mark Suzman, "American Farmers Baffled as Europe Steers Clear of Beef Treated by Hormones," *Financial Times*, 22 July 1999. On possible harmful health effects of eating hormone-treated beef, see Michael Balter, "Scientific Cross-Claims Fly in Continuing Beef War," *Science*, 28 May 1999, and Dennis Bueckert, "Research Links Breast Cancer, Beef Hormones," *The Canadian Press*, 30 July 1999.

7. WTO, "EC Measures Concerning Meat and Meat Products (Hormones)," *Report of the Appellate Body* (Geneva: 16 January 1998); Public Citizen, *op. cit.* note 4.

8. Guy de Jonquières, "Genetically Modified Trade Wars," *Financial Times*, 18 February 1999; "EU Finalizes Labeling Rules for Genetically Modified Foods," *Business and the Environment*, July 1998; "Australia, NZ Require Mandatory GM Labels on Food," *Reuters*, 4 August 1999; "Japan Risks U.S. Ire With GMO Label Plan," *Reuters*, 5 August 1999; "South Korea to Start GMO Labelling from March 2001," *Reuters*, 30 November 1999; use of

genetically modified organisms (GMOs) in U.S. food products from Rick Weiss, "In Europe, Cuisine du Gene Gets a Vehement Thumbs Down," *Washington Post*, 24 April 1999; on the move of European companies away from GMOs, see John Willman, "Consumer Power Forces Food Industry to Modify Approach," *Financial Times*, 10 June 1999, and Deborah Hargreaves, "Consumers' Unease Leads to Rethink on Modified Food Supplies," *Financial Times*, 29–30 May 1999; on the trade conflicts over labeling, see "Europe and US in Confrontation Over GM Food Labelling Criteria," *Nature*, 22 April 1999, and "U.S., Canada Concerned About Increase in Labeling Measures Affecting GMOs," *International Environment Reporter*, 23 June 1999.

9. Approval delays and drying up of European markets from Marian Burros, "U.S. Plans Long-Term Studies on Safety of Genetically Altered Foods," *New York Times*, 14 July 1999; on trends in Asia, see "Factbox—GMO Food Regulations in Asia," *Reuters*, 2 September 1999, and "EU Environment Ministers Virtually Ban Biotech Crops," *Environment News Service*, <ens.lycos.com/ens/jun99/1999L-06-25-02.html>, 25 June 1999.

10. For the U.S. government view, see Scott Kilman and Helene Cooper, "Crop Blight: Monsanto Falls Flat Trying to Sell Europe On Bioengineered Food," *Wall Street Journal*, 11 May 1999; "U.S. to Probe Euro Attitudes on GM Foods," *Environmental News Network*, <www.enn.com/news/wire-stories/1999/06/062599/eurogm_4022.asp>, 25 June 1999; and "TBT Committee Discusses Labelling, Standards," *BRIDGES Weekly Trade News Digest*, 14 June 1999. For a European perspective, see Friends of the Earth-UK, "GM Freeze: The Law's on Our Side," press release (London: 22 February 1999). On labeling, see "Sticky Labels," *The Economist*, 1 May 1999, and Matthew Stilwell and Brennan Van Dyke, *An Activist's Handbook on Genetically Modified Organisms and the WTO* (Washington, DC: The Consumer's Choice Council, March 1999).

11. On the breakdown of the biosafety talks, see Adam Thomson, "Efforts to Adopt UN Biosafety Protocol Fail," *Financial Times*, 25 February 1999, and "World Trade: Trade Tensions: The Biosafety Protocol Has Been Undermined by a Clash Between the Interests of US Multinationals and European Consumers," *Finan-*

cial Times, 26 February 1999; on continuing negotiations, see U.N. Environment Programme, “Negotiators to Seek Resumption of Biosafety Talks,” press release (Nairobi: 15 September 1999).

12. “TBT Committee Discusses Labelling, Standards,” op. cit. note 10; “U.S., Canada Call for GMO Trade on WTO Agenda,” *BRIDGES Weekly Trade News Digest*, 10 May 1999; trade war warnings from de Jonquières, op. cit. note 8, and from David Wighton, “US Accused Over Modified Food Products,” *Financial Times*, 29 September 1998.

13. General Agreement on Trade and Tariffs (GATT), *United States—Restrictions on Imports of Tuna: Report of the Panel* (Geneva: 3 September 1991).

14. On the history and results of the Marine Mammal Protection Act and its amendments, see Joshua R. Floum, Heller, Ehrman, White & McAuliffe, San Francisco, “GATT Challenge to Mexican Tuna Embargo,” submission to Jane Early, U.S. National Oceanic and Atmospheric Administration (NOAA), 21 April 1991. See also Leesteffy Jenkins, “Using Trade Measures to Protect Biodiversity,” in William J. Snape III, ed., *Biodiversity and the Law* (Washington, DC: Island Press, 1996).

15. Floum, op. cit. note 14; Jenkins, op. cit. note 14.

16. GATT, op. cit. note 13.

17. For a useful discussion of the clash between the trade and environment systems on the question of process standards, see the paper by Konrad Von Moltke in Sadruddin Aga Khan, ed., *Policing the Global Economy: Why, How, and For Whom?* Proceedings of an International Conference held in Geneva, March 1998 (London: Cameron May Ltd., 1998).

18. For a discussion of the tuna-dolphin ruling and its implications, see Eric Christensen and Samantha Geffin, “GATT Sets Its Net on Environmental Regulation: The GATT Panel Ruling on Mexican Yellowfin Tuna Imports and the Need for Reform of the International Trading System,” *Inter-American Law Review*, winter 1991–1992; on the issue of conflicts between international environmental and trade agreements, see Steve Charnovitz, “Restraining the Use of Trade Measures in Multilateral Agreements: An Outline of the Issues,” presentation at the Conference on the Relationship Between the Multilateral Trading System and the Use of

Trade Measures in Multilateral Agreements: Synergy or Friction? The Hague, 22–23 January 1996.

19. GATT, op. cit. note 13; Mexico’s refusal to participate in 1991 agreement from Steve Charnovitz, “Dolphins and Tuna: An Analysis of the Second GATT Panel Report,” *ELR News and Analysis* (Environmental Law Institute), October 1994.

20. Response of countries from David Phillips, “Dolphins and GATT,” in Ralph Nader et al., *The Case Against Free Trade: GATT, NAFTA, and the Globalization of Corporate Power* (San Francisco and Berkeley: Earth Island Press and North Atlantic Books, 1993); dolphin mortality figures from NOAA, “Commerce Department Issues Initial Finding on Tuna/Dolphin Interactions; Will Adopt New Dolphin-Safe Label Standard,” press release (Washington, DC: 29 April 1999).

21. On the role of unilateralism in paving the way for multilateral accords, see Steve Charnovitz, “Environmental Trade Measures: Multilateral or Unilateral?” *Environmental Policy and Law*, vol. 23, no. 3/4 (1993); on the fate of the tuna-dolphin panel report, see *ibid.* and Phillips, op. cit. note 20; on the EC challenge, see David Phillips and Mark J. Palmer, “Trade Agreement Runs Roughshod Over US Dolphin Protection Laws,” in Peter Fugazotto and Todd Steiner, *Slain by Trade: The Attack of the World Trade Organization on Sea Turtles and the US Endangered Species Act* (Forest Knolls, CA: Sea Turtle Restoration Project, July 1998); U.S. Department of State, “Multilateral Dolphin Protection Agreement Signed at Ceremony in Washington, D.C.,” press release (Washington, DC: 21 May 1998).

22. “Agreement on the International Dolphin Conservation Program,” 8 July 1998, <www.state.gov/www/global/oes/oceans/dolphin.html>, viewed 12 November 1999; requirement for dropping embargo from U.S. Department of State, op. cit. note 21.

23. “Meaning of Dolphin-Safe Tuna Label Changed,” *Environment News Service*, <ens.lycos.com/ens/may99/1999L-05-04-04.html>, 4 May 1999.

24. Urgency and effectiveness of trade measures from Fugazotto and Steiner, op. cit. note 21; 16 countries from David Hogan, Office of Marine Conservation, Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State,

letter to author, 24 September 1999.

25. Adam Entous, "WTO Rules Against U.S. on Sea Turtle Protection Law," *Reuters*, 6 April 1998; Anne Swardson, "Turtle-Protection Law Overturned By WTO," *Washington Post*, 13 October 1998; WTO, *United States—Import Prohibition of Certain Shrimp and Shrimp Products* (Geneva: 12 October 1998). For a discussion of the new dispute resolution rules, see Thomas and Meyer, *op. cit.* note 3.

26. New guidelines from U.S. Department of State, "Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations," Public Notice 3086, *Federal Register*, 8 July 1999; prospects for a multilateral accord from Nancy Dunne, "Legal Wrangle Engulfs US Shrimp Dispute," *Financial Times*, 14 April 1999, and from Peter Fugazzatto, Sea Turtle Restoration Project, e-mail to Lisa Mastny, Worldwatch Institute, 29 July 1999; status of the shrimp-turtle case at the WTO from "Implementation Status of Shrimp-Turtle Ruling," *BRIDGES Between Trade and Sustainable Development*, July/August 1999.

27. "Trade Court Backs Protecting Turtles From Shrimpers' Nets," *Miami Herald*, 9 April 1999; Dunne, *op. cit.* note 26.

28. William Jefferson Clinton, "Remarks at the Commemoration of the 50th Anniversary of the World Trade Organization," Geneva, 18 May 1999; Group of Eight, "G-8 Communiqué Köln 1999," press release (Cologne, Germany: 20 June 1999).

29. For ideas on needed steps to reform the rules of world trade, see "The World Trade Organization and the Environment," Technical Statement by U.S. Environmental Organizations, 16 July 1999; National Wildlife Federation, *What's TRADE Got To Do With It?* (Washington, DC: 1999); World Wide Fund for Nature, *Sustainable Trade for a Living Planet: Reforming the World Trade Organization* (Gland, Switzerland: September 1999); and Lori Wallach and Michelle Sforza, *Whose Trade Organization?* (Washington, DC: Public Citizen, 1999). EU position from "EU Outlines Environmental Priorities for WTO's Next Round of Trade Talks," *International Environment Reporter*, 9 June 1999, and from "The EU Approach to the Millennium Round," Communication from the Commission to the Council and to the European Parliament,

<europa.eu.int/comm/trade/pdf/0807nr.pdf>, viewed 23 November 1999; U.S. position from "Trade and Sustainable Development," Communication from the United States, 30 July 1999, preparations for the 1999 Ministerial Conference, at <www.ustr.gov/new/gctandep.html>, and from "White House Declaration on Environmental Trade Policy," 16 November 1999, at <www.usia.gov/topical/econ/wto99/en1116d.htm>.

30. For a description of the agreement, see Thomas and Meyer, *op. cit.* note 3; for concerns about the agreement and prospects for the upcoming review, see Genetic Resources Action International, "Intellectual Property Rights and Biodiversity: The Economic Myths," *Global Trade and Biodiversity in Conflict*, October 1998, and David Downes and Matthew Stilwell, "The 1999 WTO Review of Life Patenting Under TRIPS," revised discussion paper (Washington, DC: Center for International Environmental Law, November 1998); for an update on the TRIPS discussions, see "North-South Divide Splits TRIPS Council," *BRIDGES Weekly Trade News Digest*, 25 October 1999.

31. Proposals to reduce subsidies and stance of EU and Japan from "Appeal to End Fishing Subsidies," *Financial Times*, 2 August 1999; \$14–20 billion from Matteo Milazzo, *Subsidies in World Fisheries: A Reexamination*, World Bank Technical Paper No. 406, Fisheries Series (Washington, DC: World Bank, April 1998).

32. "Agriculture and the Environment: The Case of Export Subsidies," submission by Argentina et al. to the WTO's Committee on Trade and Environment (Geneva: 11 February 1999); stance of EU and Japan from Frances Williams, "World Trade: WTO Members Set to Sharpen Hatchets for Seattle Talks," *Financial Times*, 6 August 1999; energy subsidies from David Malin Roodman, *The Natural Wealth of Nations* (New York: W.W. Norton & Company, 1998); timber subsidies from Nigel Sizer, David Downes, and David Kaimowitz, "Tree Trade: Liberalization of International Commerce in Forest Products: Risks and Opportunities," *Forest Notes* (World Resources Institute and Center for International Environmental Law), November 1999.

33. On transparency issues, see Wallach and Sforza, *op. cit.* note 29; Daniel C. Esty, "Non-Governmental Organizations at the World Trade Organization: Cooperation, Competition, or Exclu-

sion," *Journal of International Economic Law*, March 1998; and Gary P. Sampson, "Trade, Environment, and the WTO: A Framework for Moving Forward," ODC Policy Paper (Washington, DC: Overseas Development Council, February 1999).

34. "At Daggers Drawn," *The Economist*, 8 May 1999; paper by Vandana Shiva in Aga Khan, op. cit. note 17.

35. John Burgess and Steven Pearlstein, "Protests Delay WTO Opening," *Washington Post*, 1 December 1999; Suzanne Pardee, "Demonstrators Swarm WTO Ministerial Meeting," *Environment News Service*, <www.ens.lycos.com/ens/nov99/1999L-11-30-01.html>, 30 November 1999.

CHAPTER 8. GREENING THE FINANCIAL ARCHITECTURE

1. On the reasons for the surge of private capital flows into the developing world in the early 1990s, see World Bank, *Private Capital Flows to Developing Countries* (New York: Oxford University Press, 1997), and Jacques de Larosière, "Financing Development in a World of Private Capital Flows: The Challenge for Multilateral Development Banks in Working with the Private Sector," the Per Jacobsson Lecture, Washington, DC, September 1996.

2. Private finance totals and Figure 8-1 from World Bank, *Global Development Finance 1999* (Washington, DC: 1999), with data deflated using the U.S. GNP Implicit Price Deflator provided in U.S. Department of Commerce, *Survey of Current Business*, July 1999; \$1.5 trillion from Bank for International Settlements, *Central Bank Survey of Foreign Exchange and Derivatives Market Activity in April 1998* (Basel, Switzerland: May 1999).

3. History of crisis from World Bank, *East Asia: The Road to Recovery* (Washington, DC: October 1998); capital outflows and economic growth rates from International Monetary Fund (IMF), *World Economic Outlook, October 1999* (Washington, DC: 1999).

4. Russian default from Brian Duffy, "Market Chaos Goes Global," *U.S. News and World Report*, 14 September 1998; Carlos Lozado, "Brazilian Domino Effect?" *Christian Science Monitor*, 9 November 1998; \$42-billion bailout from "The Real Thing," *The Economist*, 21 November 1998.

5. Poverty and social fallout from World Bank, op. cit. note 3, from James D. Wolfensohn, President, World Bank Group, "The Other Crisis," Annual Meetings Address, Washington, DC, 6 October 1998, and from Kevin Sullivan, "A Generation's Future Goes Begging: Asia's Children Losing to Destitution," *Washington Post*, 7 September 1998; Peter Waldman, "Desperate Indonesians Devour Country's Trove of Endangered Species," *Wall Street Journal*, 26 October 1998; environmental budget cuts from World Bank, *Environment Matters, Annual Review* (Washington, DC: 1999), and from Stevie Emilia, "Crisis Forces Jakarta to 'Sacrifice' Its Environmental Programs," *Jakarta Post*, 2 July 1998.

6. Signs of economic recovery from IMF, op. cit. note 3; poverty rates from World Bank, *Poverty Trends and Voices of the Poor* (Washington, DC: 1999), and from Jean Michel Severino, Vice President, East Asia and Pacific Region, World Bank, "East Asia Regional Overview" (Washington, DC: 23 September 1999); future instability from Jeffrey E. Garten, "A Crisis Without a Reform," *New York Times*, 18 August 1999.

7. Jeffrey E. Garten, "Needed: A Fed for the World," *New York Times*, 23 September 1998; Dani Rodrik, "The Global Fix," *New Republic*, 2 November 1998.

8. See, for example, Jeffrey Sachs, "IMF Is a Power unto Itself," *Financial Times*, 11 December 1997.

9. Total lending and adjustment lending from World Bank, *Annual Report 1999* (Washington, DC: 1999); policy reforms from Joseph Stiglitz, "More Instruments and Broader Goals: Moving Toward the Post-Washington Consensus," The 1988 WIDER Annual Lecture, Helsinki, Finland, 7 January 1998.

10. David Reed, ed., *Structural Adjustment, the Environment, and Sustainable Development* (London: Earthscan, 1996).

11. William D. Sunderlin, Consultative Group on International Agricultural Research, "Between Danger and Opportunity: Indonesia's Forests in an Era of Economic Crisis and Political Challenge" (Bogor, Indonesia: Center for International Forestry Research, 11 September 1998).

12. Asian cuts in environmental spending from World Bank, op. cit. note 5; Russia from Sara Zdeb, "Face the Facts! How the Global Economy Harms People and the Environment," informa-

tion sheet (Washington, DC: Friends of the Earth (FOE)–US, 16 April 1999); Brazil from Steven Schwartzman, Environmental Defense Fund, discussion with Lisa Mastny, Worldwatch Institute, 8 December 1999; high rates of deforestation from Daniel C. Nepstad et al., “Large-scale Impoverishment of Amazonian Forests by Logging and Fire,” *Nature*, 8 April 1999.

13. “IMF Decides Once Again to Halt Disbursement of Loans Because of Illegal Timber Practices,” *International Environment Reporter*, 15 October 1997; Government of Indonesia, “Supplementary Memorandum of Economic and Financial Policies: Fourth Review Under the Extended Agreement,” document submitted to Michel Camdessus, IMF Managing Director, 16 March 1999, <www.imf.org/external/np/loi/1999/031699.htm>, viewed 19 October 1999; Sunderlin, op. cit. note 11.

14. Government of Indonesia, op. cit. note 13; Sunderlin, op. cit. note 11; abuses in reforestation fund from World Bank, *Environmental Implications of the Economic Crisis and Adjustment in East Asia* (Washington, DC: January 1999).

15. Andrea Durbin and Carol Welch, “Greening the Bretton Woods Institutions: Sustainable Development Recommendations for the World Bank and the International Monetary Fund” (Washington, DC: FOE–US, December 1998); Ved P. Gandhi, *The IMF and the Environment* (Washington, DC: IMF, 1998). I am indebted to Frances Seymour of the World Resources Institute for suggesting that the IMF’s surveillance function might be expanded to cover environmental issues.

16. Evolving role of IMF from “Time For a Redesign?” *The Economist*, 30 January 1999, and from Carol Welch, “In Focus: The IMF and Good Governance,” *U.S. Foreign Policy in Focus*, October 1988. See also Gandhi, op. cit. note 15.

17. World Bank policy on adjustment lending from “OD 8.60, Adjustment Lending Policy,” in World Bank, *The World Bank Operational Manual*, <www.wbln0018.worldbank.org/Institutional/Manuals/OpManual.nsf>; World Bank, “The Evolution of Environmental Concerns in Adjustment Lending: A Review,” paper prepared for the CIDIE Workshop on Environmental Impacts of Economywide Policies in Developing Countries, Washington, DC, 23–25 February 1993; less than 20 percent from

Nancy Dunne, “World Bank: Projects ‘Fail’ the Poor,” *Financial Times*, 24 September 1999; World Bank environmental assessment policy as it applies to adjustment lending from Kathryn McPhail, World Bank, comment at meeting of NGOs with Ian Johnson, Vice President, Environmentally and Socially Sustainable Development, World Bank, 26 May 1999; failure of IMF to require environmental impact assessments from Durbin and Welch, op. cit. note 15.

18. Description of World Bank private-sector operations from World Bank, op. cit. note 9; 10 percent from World Bank, *Annual Report 1995* (Washington, DC: 1995). The World Bank has not updated this estimate in more recent annual reports.

19. International Finance Corporation (IFC), *Annual Report 1999* (Washington, DC: 1999).

20. For a description of the World Bank Group’s environmental policies and guidelines, see World Bank, op. cit. note 12; IFC, “Procedure for Environmental and Social Review of Projects,” information sheet (Washington, DC: December 1998); and Multilateral Investment Guarantee Agency, “Environmental and Social Review Procedures,” <www.miga.org/disclose/soc_rev.htm>, viewed 4 November 1999. On importance of World Bank standards as a point of reference for private investors, see “Attorney Says Environmental Trends Will Have Far-Reaching Impact on U.S. Firms,” *International Environment Reporter*, 1 November 1995, and World Bank, op. cit. note 5.

21. On the Bank’s shortcomings in implementing policies, see Leyla Boulton, “World Bank Admits to Weakness on Environment,” *Financial Times*, 4 October 1996, and Mark Suzman, “World Bank Accuses Itself of ‘Serious Violations,’” *Financial Times*, 7 January 1998; compliance unit and safeguards policies described in World Bank, op. cit. note 5.

22. U.S. Tibet Committee, “The World Bank: Undermining Tibet’s Future, Executive Directors Approve China’s Westward Colonization,” e-mail to author, 16 August 1999; John Poirier, “World Bank to Probe China Loan,” *Reuters*, 30 August 1999.

23. Environmental Defense Fund, *The Chad-Cameroon Oil and Pipeline Project: Putting People and the Environment at Risk* (Washington, DC: September 1999); “World Bank Completes Chad Oil Study, Waits for Consortium,” *Reuters*, 12 November 1999.

24. Danielle Knight, "Finance-Environment: Increased Lending for Destructive Projects," *Inter Press Service*, 22 February 1999; Berne Declaration et al., *A Race to the Bottom* (Washington, DC: March 1999); export credit support in 1988 from Anthony Boote, *Official Financing for Developing Countries* (Washington, DC: IMF, 1995); support in 1996 from Anthony Boote and Doris Ross, *Official Financing for Developing Countries* (Washington, DC: IMF, 1998); 10 percent is a Berne Union estimate cited in Nancy Dunne, "Environmentalists Damn Export Credit Agencies' Policies," *Financial Times*, 31 July 1998.

25. Overseas Private Investment Corporation (OPIC), *OPIC Environmental Handbook* (Washington, DC: April 1999); U.S. Export-Import Bank, "Ex-Im Bank and the Environment," information sheet (Washington, DC: 8 June 1998).

26. Institute for Policy Studies, FOE-US, and International Trade Information Service, "OPIC, Ex-Im, and Climate Change: Business as Usual? An Analysis of U.S. Government Support for Fossil-Fueled Development Abroad, 1992-98" (Washington, DC: 28 April 1999); global emissions in 1998 based on data in Seth Dunn, "Carbon Emissions Dip," in Lester R. Brown, Michael Renner, and Brian Halweil, *Vital Signs 1999* (New York: W.W. Norton & Company, 1999).

27. Bolivia-Brazil pipeline from Lisa Mastny, "Death Sentence for a Tropical Forest," *World Watch*, November/December 1999, from Nancy Dunne, "OPIC Set to Approve Bolivian Pipeline Loan," *Financial Times*, 15 June 1999, and from OPIC, "OPIC Board Approves Cuiabá Project with Unprecedented Environmental Safeguards," press release (Washington, DC: 15 June 1999).

28. Three Gorges from Berne Declaration et al., op. cit. note 24; financing from "Breaking the Wall: China and the Three Gorges Dam," *Harvard International Review*, summer 1998; flooding and resettlement figures are U.S. Export-Import Bank estimates cited in "Ex-Im Bank Turns Down Requests to Consider Three Gorges Lending," *International Environment Reporter*, 12 June 1996; countries working on standards from Pam Foster, Halifax Initiative, Ottawa, ON, Canada, discussion with Lisa Mastny, Worldwatch Institute, 4 November 1999; international discussions on common standards from Group of Eight, "G-8 Commu-

niqué Köln 1999," press release (Cologne, Germany: 20 June 1999).

29. Vanessa Houlder, "Greens Gun For Finance," *Financial Times*, 9 February 1999; Ann Monroe, "The Looming EcoWar," *Investment Dealers' Digest*, 24 May 1999; "Three Gorges Dam Sneaking Its Way Into Capital Markets," *The Bull and Bear Newsletter* (Quantum Leap Project, National Wildlife Federation and FOE-US), 20 January 1999.

30. Michelle Chan-Fishel, "Risk Exposure: Revealing Environmental and Political Risk to Private Financiers," draft report (Washington, DC: FOE-US, 11 May 1996); Bradford S. Gentry, *Private Investment and the Environment*, Discussion Paper 11 (New York: U.N. Development Programme, undated); Stephan Schmidheiny and Federico J.L. Zorraquín, with the World Business Council for Sustainable Development (WBCSD), *Financing Change* (Cambridge, MA: The MIT Press, 1996); "Bankers Urged to Include Assessments of Environmental Risk in Lending Decisions," *International Environment Reporter*, 14 May 1997.

31. Gentry, op. cit. note 30; John T. Ganzi and Julie Tanner, "Global Survey on Environmental Policies and Practices of the Financial Services Industry: The Private Sector," sponsored by National Wildlife Federation, Washington, DC, produced by Environment & Finance Enterprise, 16 May 1997.

32. U.N. Environment Programme (UNEP), "Bankers to Link Environment and Financial Performance," press release (New York: 16 May 1997); signatories and countries from "19 New Signatories to the Financial Services Initiatives," *The Bottom Line* (UNEP Financial Services Initiative newsletter), spring 1999, and from "New Signatories to the Initiatives," *The Bottom Line* (UNEP Financial Services Initiative newsletter), summer 1999; UNEP, "UNEP Statement by Financial Institutions on the Environment and Sustainable Development," revised version, May 1997, <www.unep.ch/eteu/finserv/english.html>, viewed 3 November 1999.

33. Abid Aslam, "Finance-Environment: Chinese Dam Tests 'Green' Banking Club," *Inter Press Service*, 13 September 1999; Julie Hill, Doreen Fedrigo, and Ingrid Marshall, *Banking on the Future, A Survey of Implementation of the UNEP Statement by Banks*

on *Environment and Sustainable Development* (London: Green Alliance, March 1997).

34. Claudia H. Deutsch, "For Wall Street, Increasing Evidence that Green Begets Green," *New York Times*, 19 July 1998; Edward Alden, "Go Green, Invest and Then Prosper," *Financial Times*, 25 January 1999.

35. Mark A. Cohen, Scott A. Fenn, and Jonathan S. Naimon, *Environmental and Financial Performance: Are They Related?* (Washington, DC: Investor Responsibility Research Center (IRRC), April 1995); Stanley J. Feldman, Peter A. Soyka, and Paul Ameer, *Does Improving a Firm's Environmental Management System and Environmental Performance Result in a Higher Stock Price?* (Fairfax, VA: ICF Kaiser International, Inc., November 1996); see also Jerald Blumberg, Åge Korsvold, and Georges Blum, *Environmental Performance and Shareholder Value* (Geneva: WBCSD, undated), and "Environmentally Responsible Investments Outperform Others," *Business and the Environment*, July 1997.

36. Global Environment Fund, "The Global Environment Fund Group, 1998/9," information sheet (Washington, DC: October 1998); 10 countries from Greg Nagler, Investment Analyst, Global Environment Fund, discussion with Payal Sampat, Worldwatch Institute, 30 October 1997; John Ganzi, Sandy Buffett, and Robin Dunn, "A Review of Publicly Available Funds That Focus on Financial and Environmental Performance," report prepared by Environment & Finance Enterprise, for the Office of Cooperative Environmental Management, U.S. Environmental Protection Agency, November 1998.

37. Social Investment Forum, *1999 Report on Socially Responsible Investing Trends in the United States* (Washington, DC: 4 November 1999); Domini 400 Index from Joanne Legomsky, "Investing By Conscience is Paying Off These Days," *New York Times*, 24 January 1999, and from KLD, "Domini 400 Social Index Gains 6.86% in October, S&P 500 Gains 6.36%," preliminary press release (Cambridge, MA: 9 November 1999).

38. Dow Jones Sustainability Group Index, "Dow Jones Indexes and SAM Sustainability Group Launch Sustainability Indexes," press release (Zurich: 8 September 1999); "Europe Tops Business Sustainability Index," *Environment News Service*,

<www.ens.lycos.com/ens/sep99/1999L-09-20-01.html>, 20 September 1999.

39. Social Investment Forum, op. cit. note 37.

40. "Global Reporting Initiative," background information available at <www.ceres.org/reporting/globalreporting.html>; "Ceres Green Reporting Guidelines Launched," *Environment News Service*, 3 March 1999; for more information, see <www.globalreporting.org>.

41. Schmidheiny and Zorraquín, op. cit. note 30; IRRC, "Environmental Disclosure at S&P 500 Companies' Non-U.S. Operations," press release (Washington, DC: 1 December 1997); Michelle Chan-Fishel, "The Corporate Sunshine Working Group: Expanding SEC Disclosure Requirements for Corporate Accountability" (Washington, DC: FOE-US, undated); Michelle Chan-Fishel, FOE-US, Washington, DC, e-mail to author, 1 December 1999.

42. Patareeya Benjapolchai, Senior Vice President, Stock Exchange of Thailand, "Stock Exchange Policies for Protecting the Environment," address to The Environment and Financial Performance, UNEP's Third International Roundtable Meeting on Finance and the Environment, Columbia University, New York, 22–23 May 1997.

43. "Strengthening the International Financial Architecture," Report of G7 Finance Ministers to the Köln Economic Summit, Cologne, Germany, 18–20 June 1999. For ideas on integrating environmental issues into the financial system, see John Ganzi, Frances Seymour, and Sandy Buffett, *Leverage for the Environment* (Washington, DC: World Resources Institute, 1998).

CHAPTER 9. STRENGTHENING GLOBAL ENVIRONMENTAL GOVERNANCE

1. Treaties and Figure 9–1 are compiled from U.N. Environment Programme (UNEP), *Register of International Treaties and Other Agreements in the Field of the Environment 1996* (Nairobi: 1996), from United Nations, *The United Nations Treaty Collection*, electronic database, <www.un.org/Depts/Treaty>, viewed 9 March 1999, and from UNEP, "International Conventions and Protocols

in the Field of the Environment: Report of the Executive Director," prepared for UNEP Governing Council Twentieth Session, 13 November 1998.

2. Table 9–1 is based on the following sources: number of parties for Law of the Sea, Montreal Protocol, fish stocks agreement, and the Basel, climate change, biological diversity, desertification, and prior informed consent (PIC) conventions from United Nations, op. cit. note 1, viewed 2 December 1999; International Whaling Commission (IWC), "Membership," <ourworld.compuserve.com/homepages/iwcoffice/IWC.htm#Members>, viewed 2 December 1999; whaling convention from IWC, "History and Purpose," and "Conservation and Management," information sheets, <ourworld.compuserve.com/homepages/iwcoffice>, viewed 8 July 1999; Antarctic treaty and parties from The Antarctica Project, "The Antarctic Treaty System," <www.asoc.org/general/ats.htm>, viewed 2 December 1999; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Secretariat, "What is CITES?," <www.cites.org/CITES/eng/what-is.shtml>, viewed 2 December 1999; CITES and ivory ban from Caroline Taylor, "The Challenge of African Elephant Conservation," *Conservation Issues* (World Wildlife Fund (WWF-US)), April 1997; Law of the Sea from IUCN–World Conservation Union, "The Law of the Sea: Priorities and Responsibilities in Implementing the Convention" (Gland, Switzerland: 1995); Montreal Protocol from UNEP, "Press Backgrounder: Basic Facts and Data on the Science and Politics of Ozone Protection," information sheet (Nairobi: May 1999); Basel Convention from UNEP, "Public Information Leaflets on the Basel Convention," <www.unep.ch/basel/index.html>, viewed 8 July 1999; Basel amendment from UNEP, "Basel Convention Takes Stronger Stand on Waste," *UNEP Update*, November 1995; climate change convention from UNEP, "Climate Change Information Sheet 18: The Climate Change Convention" and "Climate Change Information Sheet 21: The Kyoto Protocol," <www.unep.ch/iuc>, viewed 8 July 1999; biodiversity convention from UNEP, "Convention on Biological Diversity," <www.unep.ch/iuc>, viewed 8 July 1999; desertification convention from Secretariat of the Convention to Combat Desertification, "Fact Sheet 1—An Introduction to the United Nations Convention

to Combat Desertification," <www.unccd.ch>, viewed 8 July 1999; fish stocks agreement from Giselle Vigneron, "The Most Recent Efforts in the International Community to Implement the 1995 United Nations Straddling Fish Stocks Agreement," *Colorado Journal of International Environmental Law and Policy*, Yearbook 1998; prior informed consent convention from Cheryl Hogue, "Treaty on Prior Informed Consent Signed by 57 Countries at Rotterdam Meeting," *International Environment Reporter*, 16 September 1999.

3. Gareth Porter and Janet Welsh Brown, *Global Environmental Politics* (Boulder, CO: Westview Press, 1996); air pollution treaty from Marc Levy, "European Acid Rain: The Power of Tote-Board Diplomacy," *Institutions for the Earth: Sources of Effective International Environmental Protection* (Cambridge, MA: The MIT Press, 1993); chlorofluorocarbon (CFC) production in 1988 from Sharon Getamel, DuPont, Wilmington, DE, letter to Worldwatch, 15 February 1996; CFC production in 1997 from UNEP, *Data Report on Production and Consumption of Ozone Depleting Substances, 1986–1998* (Nairobi: 1999); CITES from Ronald Orenstein, "Africa's Elephants Could Soon Be Under the Gun Again," *Christian Science Monitor*, 2 February 1992; whale takes in 1961 from Elizabeth Kemf and Cassandra Phillips, *Wanted Alive! Whales in the Wild* (Gland, Switzerland: World Wide Fund for Nature (WWF-International), October 1995); current whale takes a rough estimate calculated from 415 takes allotted to native whalers, from IWC, "Catch Limits For Aboriginal Subsistence Whaling," <ourworld.compuserve.com/homepages/iwcoffice/Catches.htm#Commercial>, viewed 2 December 1999, and from 1,100 additional takes, compiled from WWF-International, "Japanese Fleet Returns from Whale Sanctuary with 389 Minkes," press release (Gland, Switzerland: 23 April 1999), and from Kieran Mulvaney, "The Whaling Effect," news feature (Gland, Switzerland: WWF-International, October 1999); The Antarctica Project, "The Protocol on Environmental Protection to the Antarctic Treaty," 14 June 1999, <www.asoc.org/currentpress/protocol.htm>, viewed 3 November 1999.

4. On the role of transparency, see Abram Chayes and Antonia Handler Chayes, *The New Sovereignty* (Cambridge, MA: Harvard University Press, 1995); Ronald B. Mitchell, "Sources of

Transparency: Information Systems in International Regimes,” *International Studies Quarterly*, vol. 42 (1998); and U.S. General Accounting Office (GAO), *International Environment: Literature on the Effectiveness of International Environmental Agreements* (Washington, DC: May 1999).

5. GAO, op. cit. note 4; biodiversity convention from UNEP, “Synthesis of Information Contained in National Reports on the Implementation of the Convention,” 30 April 1998, Item 11 of the Provisional Agenda of the Fourth Meeting of the Conference of the Parties to the Convention on Biological Diversity, Bratislava, 4–15 May 1998; U.N. Framework Convention on Climate Change, “Review of the Implementation of Commitments and of Other Provisions of the Convention: National Communications from Parties Included in Annex I to the Convention,” 18 September 1998, Item 4 of the Provisional Agenda of the Fourth Session of the Conference of the Parties, Buenos Aires, 2–13 November 1998; UNEP, “Report of the Secretariat on Information Provided by the Parties in Accordance with Article 7 and 9 of the Montreal Protocol: The Reporting of Data by the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer,” 21 September 1998, prepared for the Tenth Meeting of the Conference of the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer, Cairo, 23–24 November 1998.

6. UNEP, *Global Environmental Outlook 2000* (Nairobi: 1999).

7. GAO, op. cit. note 4; Rosemary Sandford, “International Environmental Treaty Secretariats: a Case of Neglected Potential?” *Environmental Impact Assessment Review*, vol. 198, no. 1 (1996); the 2000 budget for the Ramsar convention is only about \$1.9 million, per “Financial and Budgetary Matters,” Resolution No. VII.28 of 7th Meeting of the Conference of the Contracting Parties, Convention on Wetlands (Ramsar), San José, Costa Rica, 10–18 May 1999, while the 2000 budget for the climate convention is \$11 million, per U.N. Framework Convention on Climate Change, “Administrative and Financial Matters: Programme Budget for the Biennium 2000–2001,” Item 8 of the provisional agenda of the Fifth Session of the Conference of the Parties, Bonn, Germany, 25 October–5 November 1999; the Clean and Safe Water program of the U.S. Environmental Protection Agency (EPA), for instance,

had a budget of \$942 million in 1999, per EPA, “Summary of the 2000 Budget” (Washington, DC: January 1999).

8. Sandford, op. cit. note 7; Gordon Binder and Jonathan Adams, “Does CITES Need More Teeth,” *Conservation Issues* (WWF-US), October 1994.

9. Ozone treaty Secretariat from <www.unep.org/ozone/about.htm>, viewed 8 December 1999; climate treaty Secretariat from <www.unfccc.org/secret/index.html>, viewed 8 December 1999; biodiversity convention secretariat from <www.biodiv.org/SEC.HTML>, viewed 8 December 1999; United Nations, *Agenda 21: The United Nations Program of Action from Rio* (New York: 1992); Rosemary Sandford, “International Environmental Treaty Secretariats: Stage-Hands or Actors?” in Helge Ole Bergesen and Georg Parmann, eds., *Green Globe Yearbook 1994* (Oxford: Oxford University Press, for the Fridtjof Nansen Institute, 1994).

10. For a general description of Pelly Amendment as well as sea turtle example, see Steve Charnovitz, “Encouraging Environmental Cooperation Through the Pelly Amendment,” *Journal of Environment and Development*, winter 1994 (CITES included the sea turtles at issue on Appendix I, but Japan had taken a reservation, so it was not technically in legal violation of the accord); “U.S. Bans Importing Fish Caught With Driftnets,” *Washington Post*, 20 September 1991; Tom Kenworthy, “Japan to End Drift Net Fishing in Bow to Worldwide Pressure,” *Washington Post*, 27 November 1991.

11. Discussion of Montreal, Basel, and CITES trade provisions in UNEP, *Policy Effectiveness and Multilateral Environmental Agreements*, Environment and Trade Series No. 17 (Geneva: Economics, Trade, and Environment Unit, 1998); on the question of whether trade provisions induced widespread participation in Montreal, see Duncan Brack, *International Trade and the Montreal Protocol* (London: Earthscan, for the Royal Institute of International Affairs, 1996); CITES recommendations on China, Italy, and Thailand from Peter H. Sand, “Commodity or Taboo? International Regulation of Trade in Endangered Species,” in Helge Ole Bergesen and Georg Parmann, eds., *Green Globe Yearbook 1997* (Oxford: Oxford University Press, for the Fridtjof Nansen Institute, 1997); recommendations on Taiwan from “Taipei to Meet CITES Require-

ments," *Taipei CNA*, 21 April 1994; recommendations on Greece from TRAFFIC International, "Wildlife Trade Ban Called for Against Greece," press release (Cambridge, U.K.: 20 August 1998); U.S. ban from "Government Will Not Oppose U.S. Ban on Thai Wildlife Imports," *The Nation* (Bangkok), 5 July 1991; Thomas L. Friedman, "U.S. Puts Sanctions on Taiwan," *New York Times*, 12 April 1994.

12. For descriptions of the discussions in the Committee on Trade and Environment, see World Trade Organization (WTO), "Background Document for High-Level Symposium on Trade and Environment" (Geneva: 15–16 March 1999), and Gary P. Sampson, "Trade, Environment, and the WTO: A Framework for Moving Forward" (Washington, DC: Overseas Development Council, February 1999).

13. For a proposal to insulate multilateral environmental agreements from challenge at the WTO, see WWF-International, Greenpeace, and Friends of the Earth, "Joint Statement on the Relationship Between the WTO and Multilateral Environmental Agreements," position statement (Gland (Switzerland), Amsterdam, and London: July 1996); Article 104 in Governments of Canada, Mexico, and the United States of America, "The North American Free Trade Agreement," 6 September 1992; "EC Blocks Trade Threats to Environmental Agreements," *ENDS Report*, November 1996; on "savings clauses," otherwise known as "supremacy clauses," see Center for International Environmental Law, "WTO 'Supremacy Clause' in the POPs Convention," e-mail to author, 7 July 1999.

14. Global Environment Facility (GEF), brochure (Washington, DC: undated); "Agreement Reached on Funding GEF; Program to Receive More than \$2 Billion," *International Environment Reporter*, 23 March 1994; 1998 replenishment from GEF, "Introduction to the GEF," informational brochure, <www.gefweb.org/intro/gefintro.pdf>, viewed 22 November 1999; allocations as of 1999 from GEF, "Draft Annual Report 1999: Volume 1" (Washington, DC: 22 November 1999). Countries eligible for ozone project funding under the Interim Multilateral Fund are ineligible for GEF support for this purpose. The main beneficiaries of GEF support for ozone projects are countries from the former Soviet Union and

Eastern Europe.

15. Roles of implementing agencies from GEF, brochure, op. cit. note 14; collaboration with others in executing projects from GEF Council, "Expanded Opportunities for Executing Agencies" (Washington, DC: 10 September 1998).

16. GEF, "Instrument for the Establishment of the Restructured Global Environment Facility," Report of the GEF Participants Meeting, Geneva, Switzerland, 14–16 March 1994.

17. "Summary Report of the First Assembly of the Global Environment Facility," *Sustainable Developments*, 4 April 1998; *Study of GEF's Overall Performance*, document presented to the GEF Assembly, New Delhi, 2 March 1998.

18. *Study of GEF's Overall Performance*, op. cit. note 17.

19. Ibid.; spending on fossil fuel projects versus GEF budget from "GEF Deemed Success at First Assembly; Funding to be Increased by 30 Percent," *International Environment Reporter*, 15 April 1998.

20. "GEF to Work Closely With Private Sector In Next Four Years, Fund Officials Say," *International Environment Reporter*, 15 April 1998; Dana Younger, International Finance Corporation (IFC), e-mail to author, 15 December 1999; GEF, "Private Sector Information Kiosk," <www.gefweb.org/PRIVATE/priv.htm>, viewed 8 December 1999; Douglas Salloom, Small and Medium Enterprises Program Manager, IFC, discussion with Lisa Mastny, Worldwatch Institute, 9 December 1999.

21. On both the promise and the potential pitfalls of the Clean Development Mechanism, see Seth Dunn, "Can North and South Get in Step?" *World Watch*, November/December 1998, and Michael Grubb with Christiaan Vrolijk and Duncan Brack, *The Kyoto Protocol: A Guide and Assessment* (London: Royal Institute of International Affairs, 1999).

22. Konrad von Moltke, "Why UNEP Matters," A Report for WWF-International (Gland, Switzerland: March 1995); UNEP, "UNEP: Two Decades of Achievement and Challenge" (Nairobi: October 1992).

23. UNEP spending over its first 20 years from von Moltke, op. cit. note 22; the World Wildlife Fund's total expenses in 1999 were nearly \$97 million, per WWF-US, *Annual Report 1999*

(Washington, DC: 1999). Table 9–2 derived from the following sources: International Monetary Fund (IMF) staff and total disbursements from IMF, *Annual Report 1999* (Washington, DC: 1999); World Bank staff and lending commitments from World Bank, *Annual Report 1999* (Washington, DC: 1999); U.N. Development Programme (UNDP) staff from UNDP, *UNDP Today: Introducing the Organization* (New York: September 1998); UNDP total expenditures from UNDP, “Annual Report of the Administrator for 1998 and Related Matters: Statistical Annex,” Item 2 of the Provisional Agenda for the Annual Session of the Executive Board, New York, 14 May 1999; UNICEF staff and total expenditure from UNICEF, *1999 UNICEF Annual Report* (New York: 1999); World Health Organization (WHO) staff from WHO, “Proposed Programme Budget for 2000–2001,” Item 12 of the Provisional Agenda for the Fifty-Second World Health Assembly, Geneva, 21 April 1999; WHO total integrated budget from WHO, “What is the Budget of the WHO?” <www.who.int/aboutwho/en/qa6.htm>, viewed 24 June 1999; U.N. Food and Agriculture Organization (FAO) staff and total estimated expenditure from FAO, “Summary Programme of Work and Budget 2000–01,” prepared for the 116th Session of the FAO Council, Rome, 14–19 June 1999; UNESCO staff from UNESCO, “How It Works,” information sheet, <www.unesco.org/general/eng/about/how.html>, viewed 24 June 1999; UNESCO resources (regular budget plus extrabudgetary resources) from UNESCO, “Approved Programme and Budget for 1998 and 1999,” Document 29 C/5 (Paris: 1997); U.N. Population Fund (UNFPA) staff and total expenditures from UNFPA, “Report of the Executive Director for 1998: Statistical Overview,” Item 11 of the Provisional Agenda for the 1999 Annual Session of the Executive Board, New York, 14–23 June 1999; International Labour Organisation (ILO) staff from ILO, Programme, Financial and Administrative Committee (PFAC), “Composition and Structure of the Staff,” Item 11 on the Agenda for the 274th Session of the Governing Body, Geneva, March 1999; ILO expenditure from ILO, PFAC, “Programme and Budget for 1998–99: Position of Accounts as at 31 December 1998,” Item 1 on the Agenda for the 274th Session of the Governing Body, Geneva, March 1999; International Atomic Energy Agency (IAEA) resources (regular budget

plus extrabudgetary contributions) from IAEA, *Annual Report 1998* (New York: 1998); UNEP total resources from UNEP, “Programme, the Environment Fund and Administrative and Other Budgetary Matters,” report of the Executive Director to the 20th Session of the UNEP Governing Council, Nairobi, 1–5 February 1999; WTO total budget from WTO, *Annual Report 1998* (Geneva: 1998); U.N. Industrial Development Organization (UNIDO) staff from “UNIDO at a Glance,” information sheet, <www.unido.org/doc/66.html>, viewed 7 December 1999; UNIDO expenditure (disbursements plus technical cooperation delivery) from UNIDO, “Financial Situation of UNIDO,” Item 3 of the provisional agenda for the 15th Session of the Programme and Budget Committee, Vienna, 14–16 April 1999, prepared 13 February 1999; World Meteorological Organization (WMO) staff and resources (regular budget plus extrabudgetary resources) from “Basic Facts About WMO,” information sheet, <www.wmo.ch/web-en/wmofact.html>, viewed 24 June 1999; International Maritime Organization total budget from “Frequently Asked Questions About IMO,” information sheet, <www.imo.org/imo/faqs.htm>, viewed 24 June 1999.

24. UNEP, *Twenty Years Since Stockholm*, 1992 Annual Report of the Executive Director (Nairobi: 1993); UNEP, *Annual Report 1998* (Nairobi: January 1999); regional seas from Halifa O. Drammeh, UNEP, e-mail to Lisa Mastny, Worldwatch Institute, 30 October 1998; UNEP Division of Technology, Industry, and Economics from <www.unepie.org>, viewed 8 December 1999; for a list of UNEP regional offices, see <www.unep.org/earthw/unepwww.htm>.

25. “Nairobi Declaration on the Role and Mandate of the United Nations Environmental Programme, Adopted 7 February 1997, UNEP, Nairobi,” reprinted in UNEP, *Annual Report*, op. cit. note 24; UNEP Regional Office for North America, “UN General Assembly Elects Klaus Topfer New Executive Director of UN Environment Programme,” press release (New York: 1 February 1998); update on UNEP’s restructuring from Earth Negotiations Bulletin, “20th Session of the Governing Council of the United Nations Environment Programme: 1–5 February 1999” (Winnipeg, MN, Canada: International Institute for Sustainable Development, 8

February 1999), and from UNEP, *Annual Report*, op. cit. note 24.

26. For a prominent proposal to create a global environmental organization, see Daniel C. Esty, "GATting the Greens," *Foreign Affairs*, November/December 1993, and Daniel C. Esty, "The Case for a Global Environmental Organization," in Peter B. Kenen, ed., *Managing the World Economy: Fifty Years After Bretton Woods* (Washington, DC: Institute for International Economics, 1994). See also Frank Biermann and Udo E. Simonis, "A World Environment and Development Organization," Policy Paper 9 (Bonn: Development and Peace Foundation/Stiftung Entwicklung und Frieden, June 1998). For a discussion of the debate in the 1970s about both the merits and disadvantages of an independent international environment agency, see George F. Kennan, "To Prevent a World Wasteland," *Foreign Affairs*, April 1970. Kennan himself strongly advocated the value of an independent agency at that time. Both James Gustave Speth, former Administrator of UNDP, and Renato Ruggiero, former Director-General of the WTO, have voiced support for creating a World Environment Organization over the last few years. See James Gustave Speth, "Note Regarding Questions on UN Reform Proposals," unpublished document, 4 October 1996, and James Gustave Speth, Administrator, UNDP, "Address at the United Nations General Assembly Special Session for the Overall Review and Appraisal of the Implementation of Agenda 21," New York, 26 June 1997; Renato Ruggiero, "Opening Remarks to the High Level Symposium on Trade and the Environment," 15 March 1999, <www.wto.org/wto/hlms/dgenv.htm>, viewed 14 April 1999.

27. "French President Calls for Establishment of Global Unit to Link Environmental Treaties," *International Environment Reporter*, 11 November 1998; "Strengthening the Role of the United Nations Environment Programme in Promoting Collaboration among Environmental Conventions," Report of the Executive Director, Twentieth Session of the UNEP Governing Council, Nairobi, 7 January 1999; "Summary Report of Inter-Linkages—International Conference on Synergies and Coordination Between Multilateral Environmental Agreements, 14–16 July 1999," *Sustainable Developments*, 18 July 1999.

28. James Avery Joyce, *World Labor Rights and Their Protec-*

tion (London: Croom Helm, 1980); Steve Charnovitz, "Promoting Higher Labor Standards," *The Washington Quarterly*, summer 1995; Steve Charnovitz, "Improving Environmental and Trade Governance," *International Environmental Affairs*, winter 1995.

29. United Nations, op. cit. note 9; UNDP, "A Guide to UNDP's Sustainable Energy & Environment Division," <www.undp.org/seed/guide/intro.htm>, viewed 8 December 1999.

30. For a list of U.N. specialized agencies, see "Official Web Site Locator for the United Nations System of Organizations," <www.unsystem.org/index2.html>, viewed 8 December 1999; WMO from <www.wmo.ch>, viewed 8 December 1999; WHO from <www.who.ch>, viewed 8 December 1999; on WHO's standard-setting role, see, for instance, WHO, *Air Quality Guidelines for Europe* (Copenhagen: 1987); FAO from <www.fao.org>, viewed 8 December 1999; UNFPA and Cairo Action Plan from UNFPA, "Coming Up Short: Struggling to Implement the Cairo Programme of Action," <www.unfpa.org/modules/intercenter/upshort/index.htm>, viewed 8 December 1999.

31. Kathryn G. Sessions, "Institutionalizing the Earth Summit," UNA-USA Occasional Paper (Washington, DC: United Nations Association of the United States of America, October 1992).

32. Earth Council, *National Councils for Sustainable Development Database*, electronic database, <www.ecouncil.ac.cr/database>, viewed 9 December 1999; Sheila Henry, International Council for Local Environmental Initiatives, Toronto, ON, Canada, discussion with Lisa Mastny, Worldwatch Institute, 9 December 1999.

33. Tom Biggs and Felix Dodds, "The UN Commission on Sustainable Development," in Felix Dodds, ed., *The Way Forward* (London: Earthscan, 1997); "Greater Private-Sector Role Suggested in U.N. Work on Production, Consumption," *International Environment Reporter*, 3 March 1999; indicators from United Nations, Department for Policy Coordination and Sustainable Development, Division for Sustainable Development, "Indicators of Sustainable Development: Framework and Methodologies," <www.un.org/esa/sustdev/newspubs.htm>, viewed 9 December 1999; review of industry initiatives from International Institute for

Sustainable Development, "The Sixth Session of the Commission on Sustainable Development, 20 April–1 May 1998," *Earth Negotiations Bulletin*, 4 May 1998.

34. Number of nongovernmental representatives from Zehra Aydin-Sipos, Major Groups Focal Point, U.N. Commission on Sustainable Development, discussion with Lisa Mastny, Worldwatch Institute, 9 December 1999; "Culture Change in Tone Noted At Seventh Session of U.N. CSD," *International Environment Reporter*, 12 May 1999.

CHAPTER 10. PARTNERSHIPS FOR THE PLANET

1. Mike Dolan quoted in Greg Miller, "WTO Summit: Protest in Seattle; Internet Fueled Global Interest in Disruptions," *Los Angeles Times*, 2 December 1999.

2. Joseph Kahn and David E. Sanger, "Trade Obstacles Unmoved, Seattle Talks End in Failure," *New York Times*, 4 December 1999; for the distinction between governance and governments, see Commission on Global Governance, *Our Global Neighborhood* (New York: Oxford University Press, 1995), and Wolfgang H. Reinicke, *Global Public Policy* (Washington, DC: Brookings Institutions Press, 1998).

3. Thomas Princen and Matthias Finger, *Environmental NGOs in World Politics* (London: Routledge, 1994); Curtis Runyan, "The Third Force: NGOs," *World Watch*, November/December 1999; Helmut K. Anheier and Lester M. Salamon, eds., *The Nonprofit Sector in the Developing World* (New York: Manchester University Press, 1998).

4. Historical information and Figure 10–1 based on Union of International Associations, *Yearbook of International Organizations* (Munich: K.G. Saur Verlag, various years); environmental nongovernmental organizations (NGOs) as share of total from Margaret E. Keck and Kathryn Sikkink, *Activists Beyond Borders* (Ithaca, NY: Cornell University Press, 1998), based on data from the Union of International Associations.

5. World Wide Fund for Nature (WWF International), "History," <www.panda.org/wwf/history/history.htm>, viewed 9

December 1999; Greenpeace International, "Join," <www.greenpeace.org/join.shtml>, viewed 9 December 1999. Table 10–1 derived from the following sources: BirdLife International, <wnnserv.wnn.or.jp/wnn-n/w-bird/bli-c.html>, viewed 14 December 1999; International Federation of Organic Agriculture Movements (IFOAM) from J. Patrick Madden and Scott G. Chaplowe, *For ALL Generations: Making World Agriculture More Sustainable* (Glendale, CA: OM Publishing, 1997); Pesticide Action Network North America, "What is PANNA?" <www.panna.org/panna/whatis.html>, viewed 1 July 1999; International Rivers Network, "About IRN," <www.irn.org>, viewed 1 July 1999; Climate Action Network, "Climate Action Network: A Force for Change," <www.climatenetwork.org>, viewed 6 July 1999; Women's Environment & Development Organization, "About WEDO," <www.wedo.org/about/about.htm>, viewed 1 July 1999; Biodiversity Action Network, "Who We Are and What We Do," <www.bionet-us.org/who-we-r.html>, viewed 6 July 1999; International NGO Network on Desertification and Drought, "RIOD—An Introduction," <riod.utando.com>, viewed 1 July 1999; World Forum of Fish Workers & Fish Harvesters, <www.south-asian-initiative.org/wff/intro.htm>, viewed 25 June 1999; International POPs Elimination Network, "Organizational Structure," <www.psr.org/ipen/ipen_structure.htm>, viewed 1 July 1999.

6. For the role of activists in overturning the Multilateral Agreement on Investment, see Madelaine Drohan, "How the Net Killed the MAI," *Toronto Globe and Mail*, 29 April 1998, and R.C. Longworth, "Activists on Internet Reshaping Rules of Global Economy," *Chicago Tribune*, 5 July 1999; for the environmental flaws in the agreement, see WWF International, "The OECD Multilateral Agreement on Investment," WWF International Briefing (Gland, Switzerland: March 1997), and Friends of the Earth–US, "The OECD Multilateral Agreement on Investment (MAI): Examples of Laws that Would Conflict with the MAI," <www.foe.org/ga/exshort.html>, viewed 23 October 1997.

7. Brent Spar incident described in Control Risks Group, *No Hiding Place: Business and the Politics of Pressure* (London: July 1997); MacMillan Bloedel from Edward Alden, "MacMillan Bloedel Bows to Pressure from Greenpeace," *Financial Times*, 19

June 1998, and from "Natives, Enviros, MacMillan Bloedel Sign Clayoquot Truce," *Environment News Service*, <ens.lycos.com/ens/jun99/1999L-06-17-03.html>, viewed 18 June 1999.

8. Scott Kilman and Helene Cooper, "Monsanto Falls Flat Trying to Sell Europe on Bioengineered Food," *Wall Street Journal*, 11 May 1999; Scott Kilman, "Once Quick Converts, Farmers Begin to Lose Faith in Biotech Crops," *Wall Street Journal*, 19 November 1999; "Monsanto Chief Admits Public Relations Disaster," *Financial Times*, 7 October 1999; Robet B. Shapiro, Monsanto Chairman, Address to Greenpeace Business Conference, London, U.K., 6 October 1999, available at <www.monsanto.com/monsanto/mediacenter/speeches/99oct6_Shapiroscript.html>, viewed 13 December 1999.

9. Control Risks Group, op. cit. note 7; Control Risks Group, <www.crg.com/ControlRisks/crg/index.html>, viewed 13 October 1997.

10. Werner Levi, *Contemporary International Law: A Concise Introduction* (Boulder, CO: Westview Press, 1991); David A. Wirth, "A Matchmaker's Challenge: Marrying International Law and American Environmental Law," *Virginia Journal of International Law*, winter 1992.

11. Peter J. Spiro, "New Global Communities: Nongovernmental Organizations in International Decisionmaking Institutions," *Washington Quarterly*, winter 1995; "Civil Society, The U.N. and the World Bank," *Civics World*, November/December 1998; P.J. Simmons, "Learning to Live with NGOs," *Foreign Policy*, fall 1998.

12. Wirth, op. cit. note 10; David A. Wirth, "Reexamining Decision-Making Processes in International Environmental Law," *Iowa Law Review*, May 1994; Daniel J. Shepard, "UN Seeks Experts' Testimony in Series of Extraordinary Hearings on Development," *Earth Times*, 15 June 1994.

13. "Session Disrupted, Trade Ministers Insist They Will Continue," *Associated Press*, 1 December 1999; for a skeptical view of NGOs, see Martin Wolf, "Uncivil Society," *Financial Times*, 1 September 1999; on the various roles of NGOs, see Simmons, op. cit. note 11, and Steve Charnovitz, "Two Centuries of Participation: NGOs and International Governance," *Michigan Journal of*

International Law, winter 1997.

14. Don Hinrichsen, "The Earth Summit," *The Amicus Journal*, winter 1992.

15. United Nations, *Agenda 21: The United Nations Program of Action from Rio* (New York: 1992); Kathryn G. Sessions, "Options for NGO Participation in the Commission on Sustainable Development," UNA-USA Background Paper (Washington, DC: United Nations Association of the United States, May 1993); "About the Steering Committee," NGO Steering Committee to the U.N. C.S.D., <www.csdngo.org/csdngo/steer/sc_index.htm>, viewed 12 December 1999.

16. *Eco* is produced regularly by NGOs at major international negotiations. The *Earth Negotiations Bulletin* is published by the International Institute for Sustainable Development (IISD) of Winnipeg, MN, Canada. It is available at <www.iisd.ca/linkages>.

17. Global Climate Coalition, "Signing Kyoto Protocol a Major Mistake Which Weakens U.S. Position, GCC Says," press release (Washington, DC: 11 November 1998); Sustainable Energy Industries Council of Australia, Inc., brochure; European Business Council for a Sustainable Energy Future, brochure; The Business Council for Sustainable Energy, Washington, DC, brochure; UNEP Insurance Industry Initiative, "Position Statement, Presented at the Conference of the Parties of the United Nations Framework Convention on Climate Change," Kyoto, December 1997.

18. "An Introduction to GLOBE," Global Legislators Organization for a Balanced Environment, <www.globeint.org>, viewed 11 December 1999.

19. Thalif Deen, "Politics: NGOs Barred From Speaking at U.N. Population Meeting," *Inter Press Service*, 1 July 1999; "NGOs and the United Nations," Comments for the Report of the Secretary General, Global Policy Forum, June 1999, available at <www.globalpolicy.org/ngos/docs99/gpfpref.htm>.

20. Commission on Global Governance, op. cit. note 2; Richard Falk and Andrew Strauss, "Globalization Needs a Dose of Democracy," *International Herald Tribune*, 5 October 1999; Erskine Childers with Brian Urquhart, *Renewing the United Nations System* (Uppsala, Sweden: Dag Hammarskjöld Foundation, 1994);

“Objectives of the Millennium Forum,” <www.millenniumforum.org/html/Mfobject.html>, viewed 12 December 1999.

21. “Clinton’s Plea: ‘Open the Meetings,’” *New York Times*, 1 December 1999; Kahn and Sanger, op. cit. note 2; Steven Greenhouse, “Trade Ministers Sidestep Issue of Secrecy,” *New York Times*, 4 December 1999.

22. World Bank, “The World Bank Policy on Disclosure of Information” (Washington, DC: March 1994); Bank Information Center, “Fulfilling the IDA-12 Mandate: Recommendations For Expanding Public Access to Information at the World Bank” (Washington, DC: July 1999); Lori Udall, *The World Bank Inspection Panel: A Three Year Review* (Washington, DC: Bank Information Center, October 1997); Center for International Environmental Law, “World Bank Inspection Panel,” <www.igc.apc.org/ciel/wbip.html>, viewed 12 December 1999; on the International Finance Corporation’s independent ombudsman, see World Bank, *Environment Matters: Annual Review* (Washington, DC: 1999).

23. Jeffrey Sachs, “IMF is a Power unto Itself,” *Financial Times*, 11 December 1997; Nancy C. Alexander, *Finance for Development: A Dialogue with the Bretton Woods Institutions* (New York: Friedrich Ebert Stiftung, 1999); Friends of the Earth–US, *Arming NGOs With Knowledge: A Guide to the International Monetary Fund* (Washington, DC: undated); Jan Aart Scholte, Institute of Social Studies, The Hague, “Civil Society and the International Monetary Fund: An Underdeveloped Dialogue,” Paper for Discussions in Washington, DC, May 1998.

24. United Nations, “Secretary-General Proposes Global Compact on Human Rights, Labour, Environment, In address to World Economic Forum in Davos,” press release (New York: 1 February 1999).

25. Global Environmental Management Initiative, *Fostering Environmental Prosperity: Multinationals in Developing Countries* (Washington, DC: February 1999); U.N. Conference on Trade and Development, *Self Regulation of Environmental Management: An Analysis of Guidelines Set by International Industry Associations for Their Member Firms* (New York: United Nations, 1996); Control Risks Group, op. cit. note 7; “Lawyers See Rise in Court Cases

Attempting to Apply U.S. Laws Outside Borders,” *International Environment Reporter*, 25 June 1997.

26. Figure of 10,000 companies from “ISO 14001 Certificates Predicted to Reach 30,000 Next Year,” *ENDS Report*, June 1999; Global Environment & Technology Foundation, “The ISO 14000 Information Guide” (Annandale, VA, undated); IISD, *Global Green Standards: ISO 14000 and Sustainable Development* (Winnipeg, MN, Canada: 1996); Riva Krut and Harris Gleckman, *ISO 14001: A Missed Opportunity for Sustainable Global Industrial Development* (London: Earthscan, 1998).

27. IFOAM from Madden and Chaplowe, op. cit. note 5; Forest Stewardship Council, “Who We Are,” information sheet, <www.fscoax.org>, viewed 29 June 1999; Marine Stewardship Council, “Our Empty Seas: A Global Problem, A Global Solution,” information brochure (London: April 1999).

28. Wolfgang H. Reinicke, “Global Public Policy,” *Foreign Affairs*, November/December 1997; see also <www.globalpublicpolicy.net>.

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