CHAPTER 12

Trade Versus the Environment

Dolphins, Turtles, and Global Economic Expansion

In the summer of 2005 ten major U.S. environmental groups adopted a unified position against the Central American Free Trade Agreement being debated in Congress. They emphasized the potential negative impacts of trade on the environment and argued that trade agreements should be designed to enhance, not impede, environmental protection. Environmentalists' concerns about trade were not new: for years they had complained bitterly that unfettered economic globalization threatened nations' ability to institute environmentally protective regulations, which can impede the free flow of goods, services, and capital. To illustrate the flaws in the international trading regime, environmentalists often cited two prominent examples: the tuna/dolphin dispute of the late 1980s and the shrimp/turtle conflict of the late 1990s. According to environmentalists, in both of these cases trade officials condemned U.S. laws restricting imports from countries that did not use environmentally protective seafood harvesting techniques and thereby limited the United States' ability to use trade leverage to bring about global environmental improvements. Free trade advocates countered that unilateral measures of the kind that were struck down not only dampen global economic expansion but also, in the long run, reduce environmental protection. Although less explosive than it was in the early 2000s, the conflict between trade and the environment continues to simmer in 2011.[1]

To support their positions on trade and the environment, advocates on both sides draw on competing theoretical arguments about the workings of the global economy that are rooted in fundamentally different values. According to those with a cornucopian worldview, trade liberalization enhances material prosperity, which in turn leads to greater environmental protection. The claim that liberalizing trade brings about economic growth dates back to the work of nineteenth-century British economist David Ricardo, who argued that trade encourages each nation to specialize in those activities in which it has a comparative advantage. If each nation focuses on what it can do most economically and exports its surplus while importing what it no longer produces, overall efficiency and productivity—and therefore wealth—increase. In the 1990s economists extended the argument with the claim that, although a country's environmental degradation may rise sharply during the early stages of development, it is likely to decrease as a country becomes wealthier because its businesses will adopt cleaner technologies and shift away from environmentally destructive activities, and its citizens will demand more environmental protection.[2] Although mainstream economists generally endorse this view, which is known as the "environmental Kuznets curve" hypothesis, scholarly studies offer limited empirical support for it, and a growing number find that in practice the positive relationship between economic growth and environmental quality holds only for some pollutants and attenuates at a modest income level.[3] Importantly, the environmental Kuznets curve does not account for the impacts of rising consumption and energy use that accompany higher incomes.

A contrasting belief, held by many environmentalists, is that it is impossible for the world to grow its way out of poverty and environmental degradation, and free trade only hastens the world's already alarming environmental decline. Adherents to this view point out that, although trade may result in economic growth, gross domestic product (GDP) is hardly a valid measure of progress or national well-being.[4] In any case, as ecological economist Herman Daly explains, "The regenerative and assimilative capacities of the biosphere cannot support even the current levels of resource consumption," much less the enormous increases needed to produce higher levels of growth worldwide.[5] Even environmentalists who are more pragmatic than Daly worry that globalization will overwhelm environmental protection efforts; they suggest that gains from trade will only accrue if policies are in place to ensure that environmental "externalities" are taken into account. They share with Daly the fear that unregulated international commerce threatens to undermine existing and future efforts at environmental protection because it exposes domestic companies to competition from lower-cost producers and therefore creates incentives for them to resist protective regulations.

Some environmentalists also argue that free trade creates incentives for heavily polluting companies to move their operations to developing countries where regulations are less stringent and therefore compliance is less expensive; fear of losing a competitive advantage may even prompt countries to compete for dirty industries. The evidence to support this hypothesis—alternately known as the "race to the bottom," "pollution haven," and "competition for laxity" hypothesis—is also limited: most empirical investigations have found that the marginal costs of pollution abatement are relatively small and so are not a major influence on corporations' location decisions.[6] Furthermore, economists point out that corporations operating in multiple countries are likely to use the same processes everywhere, so often have cleaner operations than domestic manufacturers in countries with low environmental standards.[7]

Political scientist David Vogel proposes a third possibility: trade liberalization may result in harmonization of environmental regulations upward—what he calls the "California effect." According to this view, nations perceive environmental regulations as a source of competitive advantage, not disadvantage, because domestic businesses in countries with high standards can comply with them more easily; if those countries have large domestic markets, they can force their trading partners to meet their standards in order to continue doing business. Vogel notes, however, that there is nothing automatic about the California effect; rather, it depends on "the preferences of wealthy states and the degree of economic integration among them and their trading partners."[8] More precisely, trade liberalization is most likely to strengthen environmental protection when the most powerful in a group of economically integrated nations has an influential domestic constituency for stronger regulatory standards.[9]

Legal scholar Daniel Esty adds another wrinkle, however. He suggests that the California effect can only work in the case of product standards, not

in the case of standards that govern the process by which a product is made—precisely the issue in the tuna/dolphin and shrimp/turtle cases.[10] When the issue is one of process, regulations are likely to be harmonized only if the international trade regime allows environmentally protective nations to limit imports from countries that do not enforce regulations comparable to their own. But trade liberalization advocates oppose such flexibility out of concern that environmental regulation is simply a disguise for rules that protect domestic industries, a phenomenon they call "green protectionism." Some of the most vocal opponents of using trade restrictions to enforce environmental protection are developing countries' trade representatives, who accuse developed nations of "eco-imperialism" and contend that their domestic industries lack the resources to comply with strict environmental regulations. Many economists sympathize with this view; they argue that countries with different conditions and preferences for environmental protection should be free to set their own standards, consistent with the logic of comparative advantage.[11]

As scholars like Vogel have observed, debates between environmentalists and free traders over whether a particular environmental regulation constitutes protectionism turn on a small number of questions: What is acceptable evidence of environmental harm, and who bears the burden of proof? Is the regulation prompted by genuine environmental concern or by an impulse to protect a domestic industry? Can governments legitimately enforce regulations that aim to protect resources that are outside their jurisdiction? If so, must regulators adopt the least trade-restrictive approach possible? And should they be allowed to dictate the process by which a product is produced or harvested, as opposed to just its content?

Additional questions arise over whether, even if it is permitted, trade leverage is an effective means of bringing about international cooperation. Proponents of using trade leverage claim that historically it has produced positive environmental results, while detractors argue that in a "posthegemonic" world only noncoercive measures are likely to work.[12] One approach many environmental organizations have endorsed, in part to circumvent debates over the appropriateness of using trade policy to influence manufacturing and harvesting processes in other countries, is eco-labeling. This practice, which aims to give consumers information, rests on the theory that many buyers will choose the item that was produced in a more environmentally friendly way or that contains more environmentally benign ingredients. Although eco-labeling schemes are growing in popularity, the extent to which they protect the environment is unclear: their effectiveness depends heavily on both consumers' education and their willingness to pay a premium to advance environmental values. Moreover, although labeling schemes are traditionally voluntary, the trade representatives of developing countries object that they constitute *de facto* barriers to trade because they require substantial investments in raw materials, new production processes, testing, and certification.

BACKGROUND

In 1947, when world leaders signed the General Agreement on Tariffs and Trade (GATT), their goal was to restore international economic stability after a grueling series of world wars. Protecting the global environment was not on the agenda; in fact, quite the opposite was true: U.S. Treasury Secretary Henry Morgenthau set the tone with an opening speech that envisioned "the creation of a dynamic world economy in which the people of every nation will be able to realize their potentialities in peace ... and enjoy, increasingly, the fruits of material progress on an earth infinitely blessed with natural resources." Morgenthau's perspective was rooted in what he called the "elementary economic axiom ... that prosperity has no fixed limits."[13] To promote trade across national borders, which was viewed as an essential feature of a stable and prosperous global economic system, signatories agreed to comply with a series of rules for the treatment of domestic and imported goods and services. These rules established three basic principles: nondiscrimination among nations, minimal government restraints on the movement of goods and services, and agreement on the conditions of trade within a multilateral framework.[14] To these ends, Article I of GATT spells out the "most favored nation" principle, which prohibits applying different tariffs for the same product to different members, and Article III articulates the "national treatment" principle, which requires contracting parties to treat foreign and domestic products equally if they have met tariff and other import requirements.[15] To address the problem of nontariff trade barriers—rules that discriminate among products explicitly on the basis of national origin of the product or firm—Article XI prohibits the use of "quotas, import or export licenses, or other measures" to restrict imports or exports.

Although GATT's overall aim is trade liberalization, Article XX provides for exceptions to this broad mandate. The introductory clause of Article XX, the chapeau, allows for the adoption and enforcement of discriminatory trade laws provided they are not applied arbitrarily, do not amount to unjustifiable discrimination between countries where the same conditions prevail, and are not simply disguised restrictions on international trade. Among the particular exceptions allowed under Article XX are measures "necessary to protect human, animal or plant life or health" (paragraph b) and those "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption" (paragraph g).

During the first four decades of GATT, trade representatives from member countries evinced little interest in the impact of the agreement's rules on environmental protection. In 1971, in preparation for the 1972 UN Conference on the Human Environment, the GATT Secretariat developed a report that expressed concern about the potentially harmful impact of environmental policies on international trade. At that point, GATT officials established the Working Group on Environmental Measures and International Trade, but that group—which was to be convened at the request of GATT members—did not meet once in the ensuing two decades. During the Tokyo Round, which concluded in 1979, negotiators again said little about the environment; they did, however, develop the Agreement on Technical Barriers to Trade. Known as the "Standards Code," this agreement said that no country should be prevented from taking measures to protect the environment as long as there was no discrimination in the preparation, adoption, and application of technical regulations and standards.

Despite trade officials' reluctance to address the issue, over time, questions began to arise as to whether national environmental, health, and safety regulations—which often have a discriminatory effect if not a discriminatory intent—should be struck down as nontariff barriers to trade. Immediately, battle lines were drawn between environmentalists and free traders, both of whom quickly recognized that, "just as the definition of discrimination has important implications for the way American civil rights

laws are enforced, so does the definition of a nontariff barrier have important consequences for both trade and regulatory policies."[16] Although the philosophical differences between the two sides were clear, prior to 1991 GATT dispute resolution panels had addressed formal challenges to national environmental regulations only three times and had not confronted the most divisive issues. Two of these cases involved disputes between the United States and Canada over fishery policies; in the third, Canada, the European Community, and Mexico challenged the excise tax provisions of the U.S. Superfund amendments of 1986. In each case, the panels ruled that GATT signatories could impose whatever conservation measures, quality control, taxes, or advertising restrictions they wished, provided they applied those rules equally to imported and domestic goods.[17] Because they addressed relatively minor policy concerns, these decisions did not provoke widespread examination of GATT's ability to handle environmental challenges.

THE CASE

In 1991, however, the simmering controversy over trade and the environment boiled over when Mexico appealed a U.S. embargo on tuna caught using methods that kill dolphins. The case laid bare the fundamental disagreement between free traders and environmentalists over whether unregulated trade ultimately benefits or harms the environment. To advance their beliefs, each side tried to furnish the authoritative definition of a nontariff barrier to trade: trade liberalization advocates argued for a narrow interpretation of the exceptions to GATT's nondiscrimination provisions, while environmentalists pressed for a more expansive one. The tuna/dolphin decisions, which condemned U.S. policy, reflected trade officials' overriding concern with promoting economic growth and their strong distaste for unilateral environmental protection measures. But the rulings in a subsequent case, over whether the United States was justified in restricting imports of shrimp from nations that do not minimize harm to sea turtles, demonstrated trade officials' increasing sensitivity to the salience of environmentalism in the world's most powerful countries. The shrimp/turtle decision revealed a continuing preference among trade officials for multilateral environmental agreements (MEAs) to resolve transboundary environmental problems, but it also incorporated a broader view of the valid exceptions to GATT prohibitions. At the same time, the decision, which allowed nations to impose unilateral import restrictions if they were engaged in good-faith efforts to reach multilateral agreements, intensified the debate over the utility of trade leverage as a means of spurring international cooperation.

The Tuna/Dolphin Dispute

In the early 1990s the tuna/dolphin controversy raised the visibility of the trade-versus-environment conflict and put it squarely on the American political agenda; in doing so it revealed major differences among domestic actors as to the pros and cons of using trade leverage to accomplish environmental goals. But the problem that provoked the controversy had arisen decades earlier, when U.S. fishers discovered that in the 5-million to 7-million-square-mile area of the Pacific west of Central and South America known as the Eastern Tropical Pacific (ETP), tuna tend to swim below dolphins for reasons that scientists still do not understand. In 1959 U.S. fishers invented the practice of "dolphin setting," which involves using dolphins to locate schools of tuna and encircling both fish and dolphins with mile-long, 600-foot-deep nets called purse seines. As fishers draw the nets closed, some dolphins jump over the top, but many do not and instead become trapped and drown. Fishers quickly recognized that this technique—made possible by the development of a synthetic net that would not rot in tropical water and a hydraulically driven power block to haul the net—was the most economically efficient way to catch tuna in the ETP.[18] Scientists estimate that during the 1960s tuna fishing boats in the ETP, nearly all of which were American-owned, killed between 350,000 and 500,000 dolphins each year. In the late 1960s government biologist William Perrin published two articles drawing attention to the practice of using dolphins to catch tuna in the ETP. His observations in turn provoked environmentalists to initiate a campaign to raise public awareness of the problem.

The Marine Mammal Protection Act. By 1972 scientists and environmentalists had generated sufficient public outrage about the destruction of dolphins and other marine mammals in the course of commercial fishing to persuade Congress to pass the Marine Mammal Protection Act (MMPA), whose purpose is to preserve whales, dolphins, porpoises, manatees, sea otters, polar bears, walruses, seals, and sea lions. To that end the MMPA requires the Commerce Department's National Marine Fisheries Service (NMFS, pronounced "nymphs") to maintain "optimum sustainable populations" of marine mammals, issue permits for their incidental take in the course of commercial fishing operations, and ensure that any permitted take "be reduced to insignificant levels approaching a zero mortality and serious injury rate."[19] The law also mandates that U.S. boats fishing in the ETP carry onboard observers, comply with gear and practice standards, and stay within fleetwide mortality limits established by NMFS. In recognition that these measures put U.S. fishers at a competitive disadvantage, the law requires the State Department and NMFS to ban commercial fish (or products from fish) that have been caught with technology that results in the incidental death or injury of ocean mammals in excess of U.S. standards.

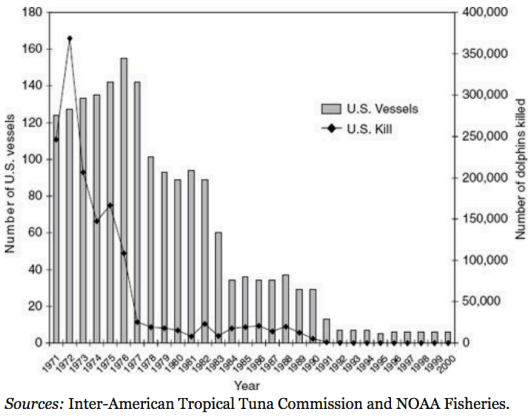
The MMPA granted the U.S. tuna industry a two-year grace period to develop procedures for reducing dolphin mortality. But even after that time had elapsed NMFS issued a general industrywide permit to the American Tunaboat Association that simply required them to maintain special gear and keep detailed records of their activities. In 1976, in response to a court order (*Committee for Humane Legislation v. Richardson,* 1976), NMFS finally issued a permit containing an annual quota for U.S. fishers in the ETP of 78,000 dolphins per year. The agency also promulgated specific gear and practice standards and placed observers on one-third of U.S. vessels. After the regulations were issued, dolphin mortality attributable to U.S. boats—which had already declined from 350,000 in 1972 to 166,000 in 1975, thanks to the adoption of "backdown procedures" and Medina panels—dropped dramatically, to below 20,000 by 1980 (see Figure 12-1).[20] In 1981, after several rounds of debate and litigation, NMFS issued the tunaboat association a five-year permit with an annual incidental take quota of 20,500.

As the United States tightened its restrictions on tuna fishing, however, American fishers began working under foreign flags or leaving the ETP altogether, in order to avoid the regulations, and foreign fleets became a larger proportion of the boats operating in the region. Recognizing the

growing importance of the foreign fleets, in 1979 the Inter-American Tropical Tuna Commission (IATTC) instituted a dolphin conservation program that aimed to achieve voluntary reductions in dolphin mortality. The program put observers on one-third of IATTC members' boats and initiated research on dolphin safety gear and the tuna/dolphin interaction. But despite the tuna commission's efforts, dolphin mortality began rising again: by 1984 fleets from Mexico, Panama, Venezuela, and the Pacific island nation of Vanuatu were killing more than 100,000 dolphins a year, and by 1986 that number had risen to 133,000.[21]

In its 1984 reauthorization of the MMPA, Congress statutorily extended the tunaboat association's permit indefinitely in hopes of quelling the recurrent disputes between environmentalists and fishers over the permit process. At the same time, however, Congress was concerned that, by not holding foreign fleets to U.S. standards, NMFS was jeopardizing not only dolphins but also the competitiveness of U.S. fleets. So the 1984 MMPA amendments established more precise standards for dolphin kills by non-American fleets: they allowed tuna caught in the ETP to be imported into the United States only if the government of the originating country could demonstrate it had implemented a dolphin protection program "comparable" to that of the American fishing fleet and had achieved an incidental kill rate "comparable" to that of the United States. The amendments also prohibited imports of tuna from intermediate countries that had purchased the fish from nations whose fleets exceeded the MMPA's dolphin mortality standards. Between 1984 and 1987, however, NMFS did not issue any formal rules to implement the import prohibition, even though newly available observer data revealed that dolphin kills by foreign fleets were higher than previously believed and were continuing to mount (see Figure 12-2).

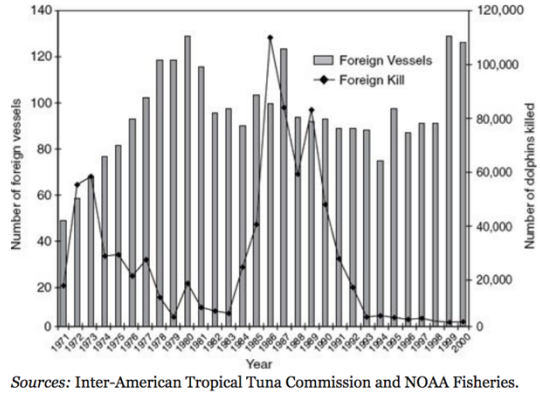
Figure 12-1 Dolphin Mortality from U.S. Vessels in the ETP



Sources: Inter-American Tropical Tuna Commission and NOAA Fisheries.

Impatient with NMFS's inaction, in January 1988 a coalition of U.S. environmental groups led by the Earth Island Institute (EII) and the Humane Society launched a boycott of canned tuna in hopes of persuading the major American importers to stop buying tuna caught with purse seine nets. The coalition also began lobbying Congress to phase out purse seine fishing altogether. U.S. fishers applauded efforts to limit imports: at congressional hearings on reauthorizing the MMPA, fishers emphasized the loss of competitive advantage they suffered because foreign fleets were exempted from dolphin protection requirements, and environmentalists and fishers both pointed out the futility of ignoring foreign fleets' activities, which were responsible for 75 percent of dolphin deaths in the late 1980s.[22] To bolster their case, environmentalists showed members of Congress a film surreptitiously made by biologist Sam LaBudde while he was aboard a Panamanian tuna fishing vessel. The film depicted dolphins "shrieking in panic as they fought against the net and gasped for air. Some that were still alive were dragged into a power block that was used to haul in the net [and they] were crushed to death."[23] Although Congress declined to take the draconian step of phasing out purse seining, the 1988 amendments to the MMPA did tighten the restrictions on incidental take of dolphins in the ETP by requiring the secretary of commerce to ban imports from countries whose fleets exceeded 1.25 times the average incidental kill rate of the U.S. fleet by 1990. The amendments similarly tightened the conditions for imposing a secondary embargo on intermediate countries to prevent tuna "laundering." Congress believed that the import bans would protect dolphin populations, encourage foreign fleets to adopt dolphin-safe practices, and protect U.S. fishers from unfair competition from foreign nations that saved money by engaging in environmentally harmful practices.[24]

Figure 12-2 Dolphin Mortality from Foreign Vessels in the ETP



Sources: Inter-American Tropical Tuna Commission and NOAA Fisheries.

The Dolphin-Safe Label. In addition to raising the salience of the issue in Congress, environmentalists sought to raise consumers' awareness of the hazards tuna fishing posed to dolphins. In April 1990, after a prolonged boycott organized by environmentalists, the three big U.S. tuna canning companies announced they would no longer sell tuna harvested by purse seine techniques. (The tuna caught in the ETP is yellowfin. It is sold as "light meat" and by the early 1990s accounted for about 20 percent of retail tuna sales in the United States.[25]) Heinz (Starkist), with a 36 percent share

of the U.S. canned tuna market in 1989, made its announcement first, and the other two—Van Camp (Chicken of the Sea) and Unicord (Bumble Bee), which accounted for another 34 percent of the market combined—quickly followed suit.[26] According to journalist Anthony Ramirez, Heinz chair Anthony O'Reilly attributed the company's decision to both concern within the corporation and widespread public awareness of the issue. The final catalyst for Heinz was a marketing survey that detected a jump in recognition of the dolphin issue among consumers from 50 percent to 60 percent and an increase in the level of concern from six to seven on a scale of one to ten.[27]

Pleased with the canners' announcement but concerned that smaller companies would label their tuna "dolphin safe" even though it was caught using purse seine nets, environmentalists lobbied Congress to enact the Dolphin Protection Consumer Information Act. This law, which passed in late November 1990, required companies selling tuna under a "dolphin safe" label to demonstrate their product was caught using methods that did not kill dolphins; in other words, tuna sold in the United States could not display the "dolphin-safe" label if it was harvested using purse seine nets deployed on dolphins. The major tuna processors, all of whom had already committed to selling only dolphin-safe tuna, testified in support of the bill. And, although small canners, Mexican fishers, and the remaining U.S. fishers in the ETP bitterly opposed it, they lacked the political clout to oppose the big three canners.[28]

The GATT Challenge. Both the 1988 amendments to the MMPA and the dolphin-safe labeling law infuriated members of the international community. According to legal scholar Richard Parker, the effect on foreign fleets of the embargo threat contained in the 1988 amendments to the MMPA was "electric." By the late 1980s IATTC research, based on newly abundant observer data, had identified a host of conditions for reducing dolphin mortality that were all under the control of a ship's captain and crew.[29] Armed with this knowledge, the tuna commission had held dozens of workshops, disseminated educational literature, and offered technical assistance to captains and crew. Participation by fishers in the IATTC's outreach program had been meager, but it increased dramatically after the passage of the 1988 amendments.[30] As a result of changes in the fishing practices of foreign fleets, total dolphin mortality in the ETP again began to decline: half as many dolphins were killed in 1990 as in 1989. Mexico, which had the largest fleet in the ETP, modified its tuna fishing regulations and reduced the number of dolphins killed from 49,000 in 1988 to 16,000 in 1991. Furthermore, the Mexican fleet reduced the average number of dolphins killed in each purse seine set from 15 to 1.85.[31]

As environmentalists pointed out, however, the Mexican kill rate still exceeded the U.S. rate (which was nearly zero largely because only eleven U.S.-registered vessels were still fishing in the ETP).[32] Yet the U.S. commerce secretary still had not issued the comparability findings required by the 1988 amendments and had made no effort to ban any imports. So in August 1990, in response to a lawsuit by EII, Judge Thelton E. Henderson issued a preliminary injunction against the importation of tuna from Mexico and four other countries fishing in the ETP (*Earth Island Institute v. Mosbacher,* 1990). Judge Henderson pointed out that under NMFS's approach, which delayed imposing an embargo until it had assessed each nation's kill rate at the end of 1989, dolphins continued to be killed and American fishers bore a competitive burden. "The continued slaughter and destruction of these innocent victims of the economics of fishing constitutes an irreparable injury to us all," the judge wrote.[33]

A day after Judge Henderson's order, NMFS made positive findings for Mexico, Venezuela, and Vanuatu, thereby allowing the embargo on them to be lifted. But EII immediately challenged the agency's calculations for Mexico, and the issue went back to court. In October Judge Henderson agreed with EII that Mexico had, in fact, exceeded U.S. standards for dolphin mortality, and he required the Commerce Department to impose a primary embargo. After a series of legal skirmishes, the Ninth Circuit Court of Appeals upheld the embargo against Mexico, which took effect on February 22, 1991.[34] Then, in late March, the embargo was broadened to include Panama and Vanuatu. In response to these court rulings, the George H. W. Bush administration's State Department—concerned about jeopardizing negotiations over the North American Free Trade Agreement (NAFTA)—reluctantly began enforcing the embargo.

The Mexican government regarded the U.S. tuna embargo as typical of efforts by developed nations to protect themselves from growing competition from developing nations. (Also infuriating was the U.S. application of the law, which meant that countries could not know whether they were in violation until the season was over, and kill rates vis-à-vis the U.S. rates were assessed.[35]) On January 25, 1991, it asked a GATT panel to deem the U.S. embargo a protectionist measure in violation of GATT rules. In legal terms, Mexico claimed the import prohibition was inconsistent with three GATT articles: XI (the general prohibition on quantitative restrictions), XIII (discretionary import rules), and III (like products). Mexico also challenged the MMPA's secondary embargo provision under Article XI. In response, the United States asked the panel to find the embargoes consistent with a provision of Article III that permits "internal regulations enforced at the time of importation" or, alternatively, justified as an exception under Article XX(b) and (g). Mexico's lawyers replied that Article XX exceptions apply only to animals within the territory of the nation imposing the restrictions. They suggested that, if the United States wanted to protect dolphins caught by the Mexican fishing fleet or in Mexican territorial waters, it should not act unilaterally, but should instead negotiate an international agreement or add the dolphin species being killed to the Convention on International Trade in Endangered Species (CITES).

In May and June of 1991 a three-person GATT dispute resolution panel held hearings on the case, and more than a dozen countries—including Australia, Canada, Japan, Norway, and the entire European Community—submitted statements supporting Mexico's position. In early September the panel ruled that both the primary and secondary tuna embargoes imposed by the United States violated GATT. The panel agreed with Mexico that the measures neither regulated the sale of tuna nor prescribed fishing techniques that would affect the content of tuna as a *product*, either of which would have been allowed as internal regulations under Article III. Instead, the U.S. measure regulated the process by which tuna is produced, which—the panel ruled—is inconsistent with GATT's "national treatment" requirement.

The panel then turned to the exceptions in Article XX—the "heart of the opinion."[36] It found that Article XX(b) and (g) did not provide exceptions because they applied only to production or consumption within one's borders. In addition, the panel held that, even if Article XX did allow for extrajurisdictional actions, the MMPA's direct embargo provisions would not qualify because they were not "necessary." According to the panel, the

United States had not demonstrated it had exhausted all reasonable alternatives. Nor had it presented compelling evidence that its restrictions on foreign fleets—which were based on calculations that were both unpredictable and unfair to other countries—were primarily aimed at conserving dolphins.[37] (Mexico had also challenged the U.S. consumer information act, but the panel upheld that law on the grounds that the labeling provision did not limit access to the U.S. market because any advantage it conveyed resulted from consumer preferences.) The panel emphasized it was not trying to discourage environmental protection but was merely trying to ensure that such measures were consistent with trade agreements that nations had signed.

Environmentalists were outraged by the GATT panel's decision, which they believed defined nontariff trade barriers far too broadly and the exceptions to GATT prohibitions too narrowly. They pointed out that environmental policy had evolved to focus on the process by which products are made, yet the world trade regime did not allow countries to take such considerations into account. An article in *Greenpeace* magazine said: "The GATT ruling sets a dangerous precedent. It paves the way for similar challenges of other national or international laws aimed, at least in theory, at protecting the Earth and its creatures."[38] David Phillips of EII said the decision showed that "In the 1990s, free trade and efforts to protect the environment are on a collision course."[39] Well aware of the issue's salience among their environmentally conscious constituents, 64 senators and 100 representatives wrote to President Bush criticizing the panel's ruling, expressing their unwillingness to weaken the MMPA, and demanding that GATT be made compatible with American environmental laws.[40]

Free traders, by contrast, applauded the panel's decision, and, although the decision provoked controversy in the United States the other GATT members overwhelmingly endorsed it. GATT's 1992 annual report and a World Bank report on trade and environment, issued shortly after the tuna/dolphin decision, defended the reasoning of the dispute panel. The GATT report, written principally by prominent trade economist Jagdish Bhagwati, articulated the environmental Kuznets curve hypothesis that economic development is more likely than trade restrictions to lead to environmental protection. Using a slippery slope argument, the report rejected tampering with GATT's nondiscrimination principle and asserted that unilateral trade restrictions would result in anarchy similar to that of the 1930s. It urged developed countries to use persuasion and incentives, not ultimatums and coercion, to change the behavior of developing countries. The World Bank report, *International Trade and the Environment*, drew similar conclusions but added that it would be irrational for countries to harmonize their environmental regulations, because doing so would undermine comparative advantage, and because countries value the environment differently depending on their level of development and other considerations.[41]

Tuna/Dolphin Round Two: Another GATT Challenge. According to GATT rules, a dispute panel ruling was binding only if the General Council officially adopted it, and, despite pressure from the other members of GATT, the United States managed to persuade the Mexican government to forgo asking the council to adopt the tuna/dolphin decision. In exchange, the United States began bilateral negotiations with Mexico in hopes that the two countries could settle the dispute such that congressional approval of NAFTA would not be jeopardized. Eventually, the two sides agreed that Mexico would reduce its dolphin kills in return for efforts by the State Department to get the embargo against Mexico lifted by trying to persuade environmentalists that lifting the ban would save dolphin in the long run. Mexico immediately began publicizing its ten-point plan to reduce dolphin kills in an effort to resuscitate its image.[42]

Environmentalists continued to press for full implementation of the Marine Mammal Protection Act, however, and in September 1991 they filed suit against the commerce secretary for failing to enforce the secondary embargo required under the law. In January 1992 the court rendered its opinion: without mentioning GATT or the tuna/dolphin dispute, Judge Henderson required the commerce secretary to ban imports from the twenty-seven countries that were shipping tuna from Mexico, Vanuatu, and Venezuela to the United States (*Earth Island Institute v. Mosbacher*, 1992).[43] In the following months NMFS began to enforce the secondary embargo. Again U.S. exertion of trade leverage produced a reaction: according to Richard Parker, the embargo galvanized a public dialogue about dolphin mortality, as well as prompting research and training programs in both Venezuela and Mexico.

Although the European Union (EU) supported the goal of reducing dolphin mortality in the ETP, its members were fed up with U.S. unilateralism, and in late 1992 it appealed to a GATT dispute resolution panel on behalf of Spain and Italy, which, along with Costa Rica and Japan, were subject to the secondary embargo. The arguments reprised those made in the previous tuna/dolphin dispute: the United States contended its secondary embargo was an allowable exception under Article XX because it was intended to protect an "exhaustible natural resource" and was not discriminatory because it had been imposed in conjunction with restrictions on domestic production and consumption. The EU responded that the American interpretation of Article XX was so broad that it would allow any nation to place environmental labels on discriminatory trade measures.[44]

In June 1994 the second GATT dispute panel found the embargo to be GATT inconsistent, but its reasoning narrowed the definition of a nontariff trade barrier considerably. Unlike the first tuna/dolphin panel, the second panel concluded that dolphins *are* an exhaustible resource; moreover, it acknowledged that there are circumstances under which a nation can use trade restrictions to influence environmental practices outside its jurisdiction—specifically to protect a global resource pursuant to an international agreement. But the panel nevertheless found the embargo was neither "related" to nor "necessary" for the conservation of exhaustible natural resources because it was not aimed directly at countries with harmful fishing practices. And the panel emphasized its continuing opposition to imposing such rules unilaterally.[45] Once again, however, the parties reached an agreement not to bring the panel's findings to a full vote.

Tuna/Dolphin Round Three: A Challenge to the Dolphin-Safe Label. Although the second tuna/dolphin decision (which was never formally adopted) was relevant in terms of GATT jurisprudence, it made little difference for tuna fishing and dolphins because developments in U.S. domestic politics were already changing the international dynamic. Specifically, Greenpeace and four other moderate environmental groups—the Environmental Defense Fund, the World Wildlife Fund, the National Wildlife Federation, and the Center for Marine Conservation—had broken ranks with EII and its allies and initiated a dialogue among members of the IATTC. Members of the dissident coalition had been persuaded to

change their position by commission scientists' data showing that alternative fishing techniques used in the ETP—setting on schools of small tuna or on floating logs—although safer for dolphins, caught large numbers of juvenile tuna and killed a host of other marine species (see Table 12-1). According to Traci Romine of Greenpeace, members of the organization did some soul-searching when they learned of the bycatch problem and concluded that as environmentalists their concerns were broader than just marine mammals.[46] In addition, they acknowledged that even though U.S. laws had prompted major changes in developing countries' fishing practices, they still worried that the combined economic impacts of the embargoes and the labeling law were too severe. As a worldwide operation with chapters in many developing countries, Greenpeace was sensitive to the need to provide viable economic alternatives for communities in those places and to maintain strong relationships.[47]

Table 12-1
Estimates of Bycatch in 10,000 New Sets in Three Modes of Fishing Used in the Eastern Tropical Pacific

	Type of Set		
Species	*School*	*Log*	*Dolphin*
Dolphins	8	25	5,000
Small tunas	2,430,000	1,300,800	70,000
Mahi mahi	2,100	513,870	100
Sharks	12,220	139,580	—
Wahoo	530	118,660	—
Rainbow runner	270	30,050	—
Billfish	1,440	6,540	520
Sea turtles	580	1,020	100

Source: Richard W. Parker, "The Use and Abuse of Trade Leverage to Protect the Global Commons: What We Can Learn from the Tuna-Dolphin Conflict," *Georgetown International Environmental Law Review:* 12 (Fall 1999): 1–122.

As a result of the negotiations instigated by the dissenting environmental groups, in June 1992 the tuna commission member governments—including the United States, Mexico, Vanuatu, and Venezuela—signed the nonbinding Agreement for the Reduction of Dolphin Mortality in the Eastern Pacific Ocean, known as the La Jolla Agreement. This pact aimed to reduce dolphin mortality in the ETP to less than 5,000 by 1999. Many observers regarded the La Jolla Agreement as promising; nevertheless, four months later Congress—heavily influenced by EII's persuasion campaign—passed the International Dolphin Conservation Act, which authorized the secretary of state to negotiate an international agreement to establish a global moratorium on dolphin setting and provided for an embargo of up to 40 percent of a nation's fish exports to enforce compliance.[48] If the United States failed to negotiate such an agreement, the law capped U.S. dolphin mortality at 1,000 for 1992 and required it to approach zero by 1999. Moreover, the law banned the sale of tuna that was not dolphin-safe after June 1994, regardless of whether any country signed on to the moratorium.

Although the dolphin conservation law undermined the La Jolla Agreement, the tuna commission worked to keep the pact together, and, as a result, dolphin mortality in the ETP declined steeply.[49] Despite their best efforts, however, Mexico and Venezuela continued to find themselves excluded from the U.S. market: they were subject to the U.S. embargoes because they had not attained the same mortality rate as the tiny U.S. fleet, and their tuna was not eligible for the dolphin-safe label because they continued to use dolphin sets. Still convinced that, in the long run, negotiations would produce better results than coercive measures, the five environmental groups that had orchestrated the La Jolla Agreement initiated another round of multilateral negotiations. Those discussions, which included Ecuador, Mexico, and Venezuela—the largest purse seine fleets operating in the ETP—yielded the Declaration of Panama. Signed by the United States and eleven other nations, the declaration was a binding treaty that called on the State Department to seek changes in U.S. laws that would lift the tuna embargoes for all participating countries, and to redefine "dolphin safe" to include tuna caught in dolphin sets that resulted in zero mortality. In return, the fishing nations committed to (1) instituting an international mortality limit of 5,000 dolphins immediately; (2) meeting even more restrictive per-stock limits than those contained in the La Jolla Agreement based on the U.S. zero mortality rate goal; (3) strengthening the IATTC's role in monitoring dolphin mortality and conducting research on and managing populations of tuna, dolphins, and other marine life; (4) taking steps to reduce or eliminate all bycatch taken in the fishery; and (5) maintaining oversight of the program by environmental, industry, and national scientific advisory groups.[50]

By this point the U.S. environmental community was deeply split over the treaty and in particular over its provision to redefine the dolphin-safe label. Defenders of the Panama Declaration pointed out that with dolphin mortality so reduced, NMFS and IATTC scientists, as well as an expert panel convened by the National Academy of Sciences (NAS), all agreed that current mortality was sustainable; with the exception of the two depleted dolphin populations, Atlantic spotted dolphins and eastern spinner dolphins, all stocks were below the zero mortality rate goal the MMPA required U.S. fisheries to achieve. In defense of relaxing the standard, they noted that the label implied that no dolphins were killed during the fishing process, yet because there were virtually no observers on boats outside the ETP there was no way of knowing about dolphins killed on so-called dolphin-safe trips. (Only 13 percent of the so-called dolphin-safe tuna that entered the United States came from the ETP, and the rest came from unobserved trips around the world.) This group also pointed out that a failure to relax the dolphin-safe label would prompt participants in the fishery to switch to methods, such as log- and school-sets, that resulted in high catches of juvenile tuna and large bycatch of other marine species.[51]

But the more adamant environmental and animal rights groups led by EII defended the existing dolphin-safe labeling criteria and were determined to eliminate dolphin setting altogether. They pointed out that scientists remained perplexed as to why two of the depleted dolphin populations had

remained low since the mid-1980s, even though mortality had declined substantially. Scientists had offered several plausible explanations for the lack of an observable recovery. One was that dolphin populations may grow slowly, and because mortality had been below 5,000 only since 1993, insufficient time may have passed to detect a recovery. But an alternative explanation, the one environmentalists were inclined to believe, was that dolphins suffer stress during the seining process, and the stress hinders their recovery. Many scientists suspected that repeated chase and capture of dolphins imposed short-term and long-term stress that was reducing the fertility and life spans of adults, and that young dolphins separated from their mothers also fared poorly. Sam LaBudde captured the sentiment of many hard-line environmentalists when he said, "Our basic premise is that it's an unacceptable method of fishing. It should never have been invented in the first place, and it's got to end."[52]

In August 1997, after an intense debate between these two factions, Congress formalized most features of the Panama Declaration in the International Dolphin Conservation Program Act. According to the new legislation, once an international agreement was in place, the United States would lift its embargoes, the total and per-stock mortality limits would become legally binding, and the emphasis of management and research would be broadened to include bycatch other than dolphins.[53] Congress did *not* endorse redefining the dolphin-safe label, however. Instead, it required NMFS to carry out preliminary studies on the status of dolphin populations and the effect of stress on their recovery. In particular, the law required the commerce secretary and NMFS to work with the Marine Mammal Commission and the IATTC to undertake population abundance studies and three specific stress studies to determine whether encirclement by purse seine nets was harming any dolphin stocks in the ETP. Based on this information, the law required the commerce secretary to make an initial finding by 1999 as to whether encirclement had a "signifi-cant adverse impact" on depleted dolphin populations. If not, then the dolphin-safe label could be redefined provisionally to include dolphin sets in which dolphins were not killed. If by 2002 further studies continued to show no effect, the redefinition would become permanent.[54]

Throughout the following year, participating nations negotiated the Agreement on the International Dolphin Conservation Program, a binding multilateral treaty among the major fishing nations that went into force in 1999. This agreement specified a variety of methods for limiting dolphin deaths in the purse-seine tuna fishery, including the establishment of quotas, improvements in gear and fishing techniques, training and certification programs, and an on-board observer program.[55] By this time, dolphin mortality had fallen to fewer than 3,000 per year, so the pressure on the Clinton administration from Mexico to lift the embargoes was intense.[56] On April 29, 1999, Commerce Secretary Richard Daley announced his department was provisionally broadening the definition of dolphin-safe tuna to include fish caught by encirclement. Environmental groups opposed to the redefinition immediately filed suit, however, and the following April the district court for Northern California set the secretary's finding aside under the Administrative Procedures Act on the grounds that it was an abuse of discretion and not in accord with the law (*Brower v. Daley,* 2000). Judge Henderson pointed out that Secretary Daley had failed to undertake the congressionally mandated stress studies. He added that the evidence that was available, although preliminary, pointed to the conclusion that encirclement did have significant adverse impacts on dolphins. Henderson also chastised Daley for giving undue weight to trade considerations in making his initial finding. The Ninth Circuit Court of Appeals subsequently affirmed the lower court's ruling, saying if it condoned the approach Daley had taken,

> the Secretary could deliberately drag his feet in commencing studies or while conducting studies and then conclude there was insufficient evidence to warrant finding a significant adverse impact on the ETP dolphin stocks. Similarly, the Secretary could limit the studies' breadth and then discover that there was insufficient evidence to warrant finding a significant adverse impact on the ETP dolphin stocks.[57]

Although EII prevailed in the labeling dispute, it fared less well in its efforts to keep the United States from dropping the tuna embargo. At the end of 2001 the Court of International Trade dismissed a lawsuit brought by environmentalists and animal rights activists challenging the implementation of the International Dolphin Conservation Program in the ETP. Judge Judith Barzilay agreed with NMFS that the dolphin conservation program was achieving the goal of conserving dolphin populations affected by the tuna purse seine fishery, thereby opening the way for Mexico to export tuna to the United States.[58] Even after the United States officially lifted its embargo, however, entrance to the U.S. market remained blocked to all tuna caught with dolphin sets because of the labeling issue. Exasperated, the Mexican government threatened to appeal the labeling requirement to the World Trade Organization (WTO), the successor to GATT that was established in 1995.[59]

Meanwhile, after being rebuffed by the courts, NMFS expanded its dolphin research program significantly, and in September 2002 it synthesized the results in a peer-reviewed report. Two months later, NMFS convened two expert panels to review the available evidence: one panel considered the effects of stress and other indirect effects on dolphin populations, and the other examined the effects of ecosystem changes on dolphin populations. Donald Evans, President George W. Bush's commerce secretary, solicited public input on the final science report, as well as comments from the Marine Mammal Commission and the IATTC.

On December 31, 2002, NMFS director William Hogarth announced a final finding that "the tuna purse seine industry practice of encircling dolphins to catch tuna has no significant adverse impact on dolphin populations in the Eastern Tropical Pacific."[60] Based on this finding, Hogarth explained, the secretary was redefining the term *dolphin-safe*, as allowed under the 1997 dolphin conservation act. In justifying his determination, Hogarth acknowledged the hard work by U.S. and international fishers to create a sustainable tuna fishery and the importance of international cooperation and support to its continuance. He also cited the absence of conclusive scientific evidence of harm. According to journalist Christopher Marquis, however, some former NMFS scientists who were involved in preparing the science report disagreed with Hogarth's interpretation and said the data did not support it. They also claimed their superiors had shut down their investigations into dolphin stress over the past decade.[61] The department immediately faced a barrage of criticism, and Evans agreed to delay imposing the rule relaxing the dolphin-safe standard in exchange for an agreement by environmentalists not to seek an injunction.

Evans ultimately stood by his finding, however, and environmentalists proceeded to challenge it in court, again alleging violations of the Administrative Procedures Act. On April 10, 2003, Judge Henderson enjoined the secretary from changing the standard because the plaintiffs had shown a likelihood of success on the merits. As in the previous case, the judge found that the best available evidence, although not conclusive, was "suggestive of a significant adverse impact," and he expressed concern that once again the secretary's decision reflected trade-policy considerations rather than the scientific evidence. The judge noted that Congress, after weighing the arguments about international cooperation, had nevertheless set an explicitly science-based standard for changing the dolphin-safe label.

After more than a year of delay, the Commerce Department finally provided the full administrative record for the case, thereby allowing the judicial proceeding to move forward. The court found the record provided

> compelling corroboration of this Court's preliminary observations in its ruling on Plaintiff's Motion for Preliminary Injunction. It reflects an agency that (1) continued to drag its feet on conducting critical mandated research, (2) continued to ignore the fact that the best scientific evidence that was available, while not conclusive, pointed to the fishery as the cause of the dolphins' failure to recover as expected, and (3) compromised the integrity of its finding by allowing trade policy considerations to infect the decision-making process.[62]

Once again, Judge Henderson declared the commerce secretary's finding to be arbitrary, capricious, and an abuse of discretion, and he ordered that the original dolphin-safe label stand. The commerce secretary appealed the lower court's decision to the Ninth Circuit, which in April 2007 ruled unanimously that the government could *not* relax requirements on dolphin-safe tuna for foreign fishers, thereby reaffirming its 2001 ruling on the issue.

The Shrimp/Turtle Case

As the battle over the tuna embargo and the dolphin-safe label played out, a second controversy erupted—this one over U.S. efforts to restrict imports of sea turtles caught in shrimpers' nets. Like the tuna/dolphin case, the dispute eventually reached the World Trade Organization. The WTO dispute panel, although it ruled against the United States, went even further than the second tuna/dolphin panel in narrowing the definition of a nontariff barrier to trade by expanding the exceptions. Its decision reflected the organization's sensitivity to the increasing salience in developed nations of concerns that trade rules jeopardize environmental protection. The decision did not ameliorate environmentalists' antipathy toward the WTO, however; nor did it resolve domestic tensions over the use of trade leverage to achieve environmental goals.

Introducing the World Trade Organization. The context for the shrimp/turtle case differed substantially from that of the tuna/dolphin case. The Uruguay Round of trade talks that began in 1986 had culminated in the January 1, 1995, formation of the WTO, which subsumed GATT and included a new mechanism for settling disputes.[63] The Dispute Settlement Understanding established a compulsory and binding dispute settlement mechanism consisting of a first level of panel reports subject to appeals to the newly created Appellate Body. The panels and the Appellate Body make recommendations to WTO members sitting as the Dispute Settlement Body, which formally adopts their reports. A consensus is required to reject a recommendation—a sharp break with the old GATT system, in which any member, including the losing party, could veto a dispute panel's recommendations.

The preamble to the agreement establishing the WTO mentions sustainable development, but overall reflects the cornucopian values that underpin the organization:

> [R]elations in the field of trade and economic endeavor should be conducted with a view to raising the standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.[64]

In order to both assuage environmental constituencies in developed countries and appease commercial interests that were concerned about the threat environmental measures posed to free trade, the WTO created the Committee on Trade and Environment. The committee's charge was to identify the relationship between trade measures used for environmental purposes and the multilateral trading system, and make recommendations for modifications in the provisions of the latter.[65]

Since it was created, however, the committee has accomplished little because no consensus exists either among or within states as to the appropriate relationship between trade and the environment. As a result, the WTO's approach to resolving trade/environment conflicts has been developed largely through jurisprudence. The WTO's first environmental dispute arose in 1995, when Venezuela and Brazil challenged the United States' reformulated fuel regulations under the 1990 Clean Air Act Amendments. In that case, the Appellate Body confirmed that clean air is an "exhaustible natural resource" and noted that the WTO agreement "is not to be read in clinical isolation from public international law." But the decision, which found the U.S. rule discriminatory and therefore GATT-inconsistent, provoked only mild criticism. By contrast, the shrimp/turtle case, which came before a dispute settlement panel in 1998, rekindled all the passion the tuna/dolphin case had ignited earlier in the decade.

Origins of the Shrimp Import Ban. Like the tuna/dolphin dispute, the shrimp/turtle controversy originated as a domestic issue, and the imposition of stringent domestic regulations prompted a coalition between fishers and environmentalists in favor of import restrictions. U.S. efforts to protect sea turtles began with a recognition that these marine reptiles, which have survived since the age of the dinosaurs, had become endangered in the space of several decades in the late twentieth century. "At one time the world's oceans were brimming with turtles," reports journalist Leslie Burdick. "Centuries ago, ships' logs said the Caribbean was so full of them

one could be guided toward an island by the clacking of their shells knocking together."[66] According to turtle expert Jim Richardson, earlier in the twentieth century "you couldn't row a boat in front of nesting beaches. Turtles would kick the oars out of the oarlocks."[67] In the second half of the twentieth century, however, sea turtle numbers declined precipitously. On Mexico's Rancho Nuevo Beach, 40,000 turtles nested in a single day in the 1940s, whereas only 400 to 500 nested there by the 1980s; in places where people hunted them for food, wild turtles had disappeared altogether. In the 1970s the United States listed five of the world's remaining seven sea turtle species as endangered or threatened under the Endangered Species Act (ESA). One of those, the Kemp's ridley, was among the world's twelve most endangered species.

Also in the 1970s scientists identified shrimping as a major cause of sea turtle mortality: sea turtles swim in temperate and tropical waters and forage in the same habitats as some commercially valuable shrimp species. Shrimp trawls, which are towed across the ocean bottom, catch turtles, which may drown because they need to surface at least once an hour to breathe. Environmentalists claimed that 150,000 sea turtles were dying worldwide in shrimp nets each year.[68] Looking for ways to solve this problem in response to the ESA listings, in the 1970s NMFS began developing a prototype turtle excluder device (TED). TEDs are simple, relatively inexpensive, easy-to-operate modifications to shrimp trawls: they consist of grates installed in the back of a trawl that allow shrimp through but force turtles along a barrier to an opening in the top or bottom of the net. TEDs cost between $50 and $400 and, used properly, can exclude up to 97 percent of turtles caught in trawls while losing only about 6 percent of the shrimp catch.[69]

In the early 1980s NMFS initiated a voluntary program of TED use, but shrimpers refused to adopt the device, so in 1987, after several years of lobbying by environmentalists and scientists, the agency issued regulations under the ESA requiring shrimpers in the southeastern United States to use TEDs on their vessels during part of the year. The regulations immediately provoked a firestorm of protest from shrimpers: commercial fishing groups challenged the regulations in court and appealed to their congressional representatives. Legislators from the Gulf Coast states helped postpone the regulations by delaying the ESA reauthorization and adding amendments mandating an NAS study of the sea turtle problem and the impact of TEDs.[70] After two years of delay, however, the courts upheld the regulations, and in July 1989 they took effect. Shrimpers promptly staged massive protests, blockading Texas ports and threatening violence if the rules were not changed or reversed. The Commerce Department temporarily suspended the regulations in response to complaints that the devices were inconvenient, dangerous, and expensive to operate. Environmentalists immediately challenged the moratorium in court, and U.S. District Court Judge Thomas Hogan, pointing out that the Commerce Department appeared to have given in to "mob rule," ordered the commerce secretary to draft temporary measures that would effectively protect turtles.[71] The agency then responded by issuing an interim requirement that allowed shrimpers to simply pull their nets up every 105 minutes and release the dazed turtles.

That requirement was unlikely to pass legal muster, however, because an internal memo by NMFS scientists had already concluded that "the only reasonable and prudent alternative which will allow shrimping to continue without jeopardizing the continued existence of identified [listed] turtle species is full implementation of the [turtle excluder device] regulations."[72]

So in September 1990 NMFS finally issued rules requiring the use of TEDs on large offshore shrimp trawlers during part of the year and in specific areas of the Southeast, and in October those regulations went into effect. Fishers continued to object that the regulations would disable them economically and to complain that condominiums, beach traffic, and poaching posed more severe threats to turtles than shrimp fishing.

But a May 1990 NAS report undercut their claims: it found that shrimp trawlers were by far the leading cause of turtle deaths at human hands, blaming them for at least 11,000 turtle deaths per year—and probably as many as 44,000. In support of its conclusions, the panel noted that the number of dead turtles washed ashore on nearby beaches increased when shrimp fisheries opened and decreased when they closed. In addition, loggerhead populations had increased where there was minimal shrimp trawling and decreased where it was frequent.[73] The report noted that shrimp trawling kills ten times as many sea turtles as all other human activities combined; it endorsed the TED requirement and provided the strongest evidence to date in favor of the regulations.[74] In December 1992 NMFS expanded the TED requirements to year-round use in all inshore and offshore waters in the Gulf and Atlantic. The new regulations also instituted tough enforcement measures, which NMFS periodically had to employ to keep shrimpers from defecting.

Recognizing that the TED requirements were here to stay, shrimpers went to their congressional representatives to ask them to provide a "level playing field" with foreign shrimpers, who furnished more than 80 percent of the U.S. shrimp supply. The Concerned Shrimpers of America and the Louisiana Shrimp Association testified before Congress that low-cost imports had depressed shrimp prices in the United States and that import controls were necessary to stimulate a recovery of the domestic industry.[75] In response, Congress enacted Section 609 of P.L. 101-162 (Shrimp Import Prohibition Legislation for Marine Turtle Conservation), which was codified in a note to the ESA. The Turtle-Shrimp Law, as Section 609 became known, requires the State Department, in consultation with the commerce secretary, to (1) initiate or modify bilateral or multilateral sea turtle protection agreements; and (2) establish a ban on wild shrimp imports unless exporting nations could certify they were caught using sea turtle protection practices comparable to those used in the United States, or that its fishing environment did not pose a threat to sea turtles.

Implementing the Ban and the WTO Challenge. As in the tuna/dolphin case, the executive branch initially interpreted its legislative mandate conservatively. NMFS began by identifying those countries whose commercial fishing operations might harm sea turtle species that were found in U.S. waters. To do this, the agency convened a panel of experts who determined that about seventy countries had shrimp trawling operations where sea turtles were present and had exported to the United States in the preceding two years. The State Department decided to apply the law only to fourteen countries in Central and South America, however, reasoning that the turtles that actually swim in U.S. waters migrate through the Gulf of Mexico, the Caribbean Sea, and into the South Atlantic Ocean. The State Department also assumed that, to comply with the law's requirement that exporting countries achieve an average rate of incidental take comparable to that of the United States, they would have to adopt TEDs. It issued a set of guidelines for making the transition to TEDs and allowed for a three-year phase-in period. By 1995, with the help of training from NMFS, most of the

fourteen countries made progress in adopting TED laws and phasing in their use, and so were certified. Two countries, Guatemala and Costa Rica, were able to get certified because their shrimp fisheries operated in the deep, cold waters of the Pacific. Only French Guiana did not meet U.S. requirements and was unable to get certified; as a result, exports from that country were embargoed in 1992. (Some of the countries that initially gained certification subsequently ran into difficulty complying with U.S. requirements and faced sanctions[76]).

Meanwhile, in 1992 the Sea Turtle Restoration Project, a coalition of environmental and animal welfare organizations led by EII, had filed suit in federal court to challenge the State Department's guidelines limiting the application of the Turtle-Shrimp Law only to countries in the Caribbean/Western Atlantic region. The jurisdiction of the case was eventually moved to the Court of International Trade, which in 1995 ruled in favor of the plaintiffs. The judge chastised the implementing agencies and compelled the United States to require that all wild shrimp imported into the United States be caught using TEDs or a comparable method, notwithstanding questions related to conflicts between the Turtle-Shrimp Law and GATT.[77] This ruling automatically increased the number of countries affected from fourteen to the seventy originally identified by NMFS. In doing so it also promised to raise the price of shrimp, which domestic shrimpers appreciated.

In May 1996 the State Department reluctantly began enforcing the Turtle-Shrimp Law, but, rather than embargoing shrimp from nonconforming countries, it allowed shrimp to be imported on a shipment-by-shipment basis. (That is, it allowed shipments from nonconforming countries if the shrimp in that shipment were caught using nets equipped with TEDs.) In October, however, the Sea Turtle Restoration Project won a court ruling in the international trade court disallowing that practice, so the rule reverted to requiring that all shrimp from a country that exported to the United States be harvested using TEDs. A month later the United States held consultations with India, Malaysia, Pakistan, and Thailand, but failed to reach a resolution, and in January 1997 the four countries challenged the law before the WTO. The plaintiffs charged that the Turtle-Shrimp Law violated three GATT articles: XI, which prohibits one member nation from imposing quantitative restrictions on imports and exports from other member nations; XIII, which establishes the like treatment rule; and I, which contains the most favored nation provision.

In hopes of influencing the political context for the decision, the Sea Turtle Restoration Project placed ads in the *New York Times*, the *Washington Post*, and the *International Herald Tribune* alerting the public to the threat the WTO posed to the ESA, democracy, and national sovereignty. The group also tried to raise questions about conflicts of interest among members of the dispute panel, as the panelists came from countries that had previously been embargoed by the United States under the Turtle-Shrimp Law or had signed on as interested parties in the dispute. Environmentalists believed they had a stronger case for their narrow definition of what constitutes a nontariff barrier to trade in the shrimp/turtle dispute than they had in the tuna/dolphin case: an amicus brief submitted to the dispute panel by the World Wildlife Fund pointed out that the UN had classified all five turtle species involved as threatened with extinction, the U.S. import ban complied with international law requiring states to protect endangered species, and TEDs were cheap and effective. Furthermore India, Malaysia, and Pakistan had all rebuffed U.S. efforts to secure a multilateral deal on TEDs.

Environmentalists' optimism notwithstanding, in April 1998 the WTO dispute panel concluded that the Turtle-Shrimp Law was inconsistent with GATT Article XI and could not be justified under Article XX. To reach its conclusions, the panel began by examining the U.S. law under the chapeau of Article XX and found that the import restrictions constituted "arbitrary and unjustifiable" discrimination among countries. Having decided the measure violated the chapeau, the panel did not even consider whether it qualified as an exception under XX(b) or (g). The panel also affirmed that environmental protection policies should be tailored to fit the particular development and environmental conditions in each country and that multilateral negotiations were the preferred means of achieving environmental goals.[78] (Because of its finding that the Turtle-Shrimp Law violated Article XI, the panel did not address the complainants' argument about Articles I and XIII.)

The United States appealed the panel's ruling, and in October the Appellate Body (AB) reversed much of the lower panel's decision. In particular, the AB took issue with the dispute panel's analysis. Instead of beginning with the chapeau, as the dispute panel had, the AB started by determining whether the Turtle-Shrimp Law qualified as an Article XX exception and *then* considered whether it was discriminatory. In legal terms, the AB found the import ban imposed by the United States *was* provisionally justified under Article XX(g) for two reasons. First, living creatures can be "exhaustible resources"; this phrase, although originally intended to apply to minerals, must be interpreted in light of contemporary concerns. And, second, the U.S. measure was "related to the conservation of exhaustible natural resources" because the means connected specifically to the purpose and the scientific evidence strongly affirmed the evidence between shrimp trawling and sea turtle mortality.[79]

On the other hand, the AB found that the import ban failed to meet the requirements of Article XX's chapeau, which requires exceptions to be nondiscriminatory. In particular, trade officials objected to the State Department's failure to take local circumstances into account by demanding that countries adopt the same policies and practices as the United States. They also objected to the State Department's failure to hold multilateral negotiations before imposing the ban. And they found fault with the U.S. decision to give the fourteen Caribbean and Western Atlantic nations three years to phase in TEDs and others only four months.

Essentially, the AB ruled that a unilateral trade restriction to promote environmental objectives *was* permissible under GATT rules as long as it was implemented in ways that were not arbitrary or discriminatory. In addition, the AB made a set of nonbinding commitments that aimed to defuse environmentalists' ire:

> We have not decided that the protection and preservation of the environment is of no significance to the Members of the WTO. Clearly, it is. We have not decided that the sovereign nations that are Members of the WTO cannot adopt effective measures to protect endangered species, such as sea turtles. Clearly, they can and should.[80]

Despite these concessions, environmentalists were not mollified. Charles Aden Clarke of the World Wildlife Fund said the ruling "denies individual countries the right to restrict trade even when species ... are

endangered and the complainant countries have signed international environmental agreements to protect them."[81] David Schorr, director of the fund's sustainable commerce program, said the WTO "is simply not competent to decide issues that require a mature balance between liberalized trade and other legitimate policy goals." He also asserted that the AB ruling revealed "the profound bias of the WTO against environmental policies and in favor of 'free trade' at any cost."[82]

Many prominent environmentalists urged the Clinton administration to reject the panel's ruling, which the Dispute Settlement Body adopted in November 1998, and work to modify WTO rules. To their dismay, however, the State Department accepted the ruling and adjusted its regulations to allow shrimp imports from countries without sea turtle protection programs on a shipment-by-shipment basis. (By this point, such an approach was legally acceptable because in June 1998, two months after the original WTO panel ruling, the U.S. Court of Appeals for the Federal Circuit had overturned the international trade court's ruling against the shipment-by-shipment guidelines on the grounds that Judge Acquilino had no jurisdiction to issue it because EII had withdrawn its motion.[83]) The State Department also began negotiating a sea turtle conservation agreement with the governments of Southeast Asia and the Indian Ocean region and stepped up its technical training program in those countries. Nevertheless, in October 2000 Malaysia again appealed to the WTO, saying the United States had not dropped its ban and therefore continued to be in violation of GATT. To the surprise of many observers, however, on June 15, 2001, the WTO panel ruled against Malaysia, finding that the U.S. implementation of its sea turtle protection law was fully consistent with WTO rules and complied with the earlier recommendations of the AB. Two weeks later, eight countries —including Malaysia and the United States—signed an agreement to voluntarily protect sea turtles in the Indian Ocean. And on October 22 the AB affirmed the compliance panel's decision.

OUTCOMES

Since the early 1990s environmentalists clearly have had a powerful impact on the international definition of nontariff trade barriers. Although they continue to express a preference for multilateral agreements and to insist on tailoring policies to the conditions of individual countries, trade officials' tolerance for unilateral, trade-restrictive measures to protect the earth's living resources has increased. Furthermore, the particular measures at issue—the U.S. bans on tuna and shrimp imports—have prompted environmental improvements: in the 1990s dolphin mortality in the ETP dropped precipitously and remains low, and turtle bycatch in shrimp fisheries is declining in most parts of the world. Nevertheless, overall bycatch in fisheries worldwide remains an enormous environmental problem, and the debate over how best to reduce it rages on.

The WTO and the Environment

According to legal scholar Louise DeLaFayette, the 2001 AB report in the shrimp/turtle case confirmed a "revolution in WTO jurisprudence heralded in 1998 by the original Appellate Body Report."[84] DeLaFayette argues that the AB applied an "evolutionary approach" to Article XX by interpreting the phrase "exhaustible natural resources" consistently with its contemporary meaning in international law, to include living natural resources in danger of extinction. She adds that the shrimp/turtle case appears to have established the following principles:

- The interpretation of Article XX and the GATT in general must be guided by the objects and purposes set out in the preamble, including those of environmental protection, conservation of natural resources, and sustainable development.
- Article XX of the GATT can be used to justify trade-restrictive measures taken in order to protect the environment, provided the measures are applied in a nondiscriminatory manner and are not used only to protect national industries.
- There is no limit in Article XX(g) on the location of the natural resources to be protected. Therefore such resources may include those beyond the national jurisdiction of the state imposing the restriction, as long as there is a "sufficient nexus" with such resources within that state's jurisdiction.
- There is no exclusion of trade-restrictive measures based on process and production methods, which are not even mentioned in Article XX.
- The chapeau of Article XX requires only two conditions be met to justify trade-restrictive measures: (1) application of the measure must not involve arbitrary or unjustified discrimination, and (2) the measure must not be used as a cover for the protection of national industries.
- Discrimination can arise not only by applying different measures to countries where the same conditions prevail, but also by imposing exactly the same policy or measure on countries where different conditions prevail.
- The discrimination resulting from such rigidity is heightened by unilateral imposition of restrictions on imports and should be avoided, if possible, by negotiating multilateral agreements with all exporting countries. (It is not necessary to have concluded such an agreement, however, but only to have entered into and continued good faith efforts to reach international consensus[85]).

The shrimp/turtle ruling, and the principles enunciated above, outraged free trade advocates. For example, Alan Oxley, a former ambassador from Australia to GATT and a panelist on the second tuna/dolphin panel, contends that "the endorsement of unilateral trade sanctions is fundamentally contrary to the philosophical basis of the GATT."[86] Like most free traders, he invokes a historical rationale: after World Wars I and II trade sanctions came to be regarded as the precursors to formal declarations of war. Oxley is also dismissive of the WTO's ability to make judgments about the importance and effectiveness of environmental measures; the organization's expertise, he points out, is in facilitating international trade. And he worries that allowing import restrictions based on attitudes within importing countries undermines the principle of comparative advantage. Other critics accuse the Appellate Body of trying to legislate changes in GATT and circumvent the WTO policymaking process.

Dolphins, Sea Turtles, and Other Bycatch

In addition to gaining some legitimacy within the WTO, import restrictions have prompted substantial environmental improvements. Dolphin mortality in the ETP plummeted in the early 1990s, and since the

late 1990s has remained below 2,000. Furthermore, as political scientist Elizabeth DeSombre points out, even states that did not meet U.S. standards in the 1990s modified their fishing practices in ways that protect dolphins: most participate in the IATTC's international observer program, most have signed international agreements, and many are fishing with smaller boats or using methods less likely to endanger dolphins.[87] Still, the failure by the Atlantic spotted and eastern spinner dolphins to recover continues to perturb scientists. As of January 2011 NMFS has insufficient data on the Atlantic spotted dolphin to determine its population trend, while the long-term population trend for eastern spinner dolphins is flat.[88]

The situation for sea turtles is more complicated. Between 1990, when the TED rules went into effect, and 2002, the annual mortality of Kemp's ridley turtles was cut in half. As a result, federal biologists reported finding more than double the number of Kemp's ridley nests on Texas beaches in 2000 than in 1999. Kemp's ridley nesting levels globally increased from between 700 and 800 annually in the mid-1980s to more than 6,000 in 2000 and more than 10,000 in 2006 (with most of these in Mexico).[89] In February 2003 NMFS published new rules requiring larger openings for TEDs to allow larger turtles to escape. (The agency had known since 1999 that nearly 90 percent of the dead turtles on South Carolina beaches were too large to escape through the existing devices.) With the new rules, officials expected annual fishing-related deaths of leatherbacks and loggerheads to decline dramatically.[90]

Political skirmishes continued throughout the 2000s over efforts to regulate turtle bycatch in the longline fisheries off Hawaii and Florida, and the scallop fishery off the coast of New England. Some fishery managers hoped a new device would help save turtles: the "tow-time logger," a seven-inch cylinder that attaches to fishing nets and records how long they stay underwater, could help prompt fishers to pull up their nets before turtles drown. Meanwhile, the World Wildlife Fund urged fishers in Latin America and Mexico to replace traditional J-shaped hooks with circular hooks that are easier to remove from the mouths of turtles caught up in fishing line.[91] Despite these efforts, a peer-reviewed study by scientists at Conservation International, San Diego State University, and Duke University found that 85,000 accidental turtle catches were recorded between 1990 and 2010—noting that for every catch reported, 100 more go unreported.[92]

Sea turtles face other threats beyond fishing. In August 2003 the Florida Fish and Wildlife Conservation Commission reported that the number of sea turtle eggs being stolen from Florida beaches had risen dramatically—probably to meet rising demand from Latin American and Caribbean culture and cuisine in southeast Florida—and Florida loggerheads, which had been gaining in population, appeared to be declining.[93] Furthermore, in early 2004 NMFS reported that sea turtle populations were crashing in Mexico, where nesting along the Pacific Coast had declined at an annual rate of 22 percent during the previous twelve years, and in Malaysia, where the sea turtle population was 1 percent of what it had been in the 1950s. In both places, a major culprit is harvesting of eggs.[94] But fishing continues to pose the most serious threat to turtles worldwide because it kills adult females, which then can never reproduce.[95]

Although regulators have made progress in particular fisheries, marine mammal bycatch worldwide continues to threaten the productivity of marine ecosystems. In summer 2003 the International Whaling Commission published a report claiming that as many as 300,000 porpoises, dolphins, and whales die each year in fishing gear entanglement —making that the leading cause of death among the cetacean group of mammals.[96] Two years later the World Wildlife Fund released a scientific report that contained a similar figure.[97] Experts acknowledge that addressing the bycatch issue is complicated by the fact that, although scientists have developed a variety of relatively simple practices to reduce it, many developing countries lack the political will to require such practices and choose instead to maximize their target catches at lowest cost. Fishers in developed countries in turn resist stricter regulations because they worry about being unable to compete with cheap foreign imports. And when developed countries do impose strict regulations, fleets often simply move elsewhere or reflag their vessels, just as the Americans did in the ETP. Enforcement of regulations is further complicated by the fact that most fishers simply dump their bycatch at sea and do not keep precise records.

CONCLUSIONS

For many environmentalists the positive environmental impacts of import bans and eco-labeling for dolphin and sea turtle populations suggest that allowing developed countries to impose unilateral trade restrictions may be a critical element of protecting global resources. But the use of trade leverage to achieve environmental goals remains controversial. Many critics, including most WTO members, accuse the United States of green protectionism and eco-imperialism and believe that, in any case negotiated, multilateral solutions are more effective than coercive, unilateral approaches.[98] On the other hand, trade leverage has indisputably prompted major change—not just in the policies of developing countries but in their discourse, perceptions, and practices.[99] Moreover, the trade provisions of some MEAs, such as the threat of sanctions under the Montreal Protocol and CITES, have been key to their success.[100] So perhaps, as Richard Parker observes, the more serious questions are what form trade leverage should take and when to use it.

Many commentators also chastise environmentalists for their unrelenting criticism of the WTO and their failure to recognize the evolution in its jurisprudence toward a narrower definition of nontariff trade barriers and a broader view of the exceptions. For example, political scientists Elizabeth DeSombre and J. Samuel Barkin write, "The WTO's rules on environmental exceptions, clearly articulated throughout the past decade, should be seen not as favoring trade over the environment, but as a check on bad or incompetent legislation."[101] Moreover, DeSombre finds that the WTO has become more accepting of trade restrictions for environmental ends as long as they are imposed in a multilateral context.[102] But political theorist Robyn Eckersley worries that the international trade regime is far more powerful and cohesive than any multilateral environmental accord and that concerns about running afoul of the WTO cast "a long shadow" over the negotiation and implementation of such accords.[103] Concerns about the dominance of trade over the environment have provoked some observers to propose creating a global environmental organization. Others have suggested more modest reforms: amendments to GATT to create specific exceptions for multilateral environmental accords or an expansion of the WTO or the UN to police the environment.

But such developments are unlikely without a stronger global consensus on environmentalism, and developed countries have done little to convince developing countries that environmental protection need not be detrimental

to their economic aspirations.[104] One reason is that internal differences within the developed nations—and particularly within the United States, where antiregulatory forces exert a great deal of influence (see Chapter 13)—prevent them from providing strong, unified leadership on behalf of the environment. In the absence of such leadership, voluntary schemes like eco-labeling are likely to continue to proliferate, and binding environmental agreements to remain scarce.

QUESTIONS TO CONSIDER

- To what extent should developing countries be allowed to have less stringent environmental regulations than developed countries, in the interest of fairness?
- To what extent should countries concern themselves with environmental degradation beyond their borders, and why?
- What do you believe are the best mechanisms to bring about improvements in environmental protection internationally, and why?

Recommended Reading

Bhagwati, Jagdish. *In Defense of Globalization*. New York: Oxford University Press, 2004.

Gallagher, Kevin P. *Free Trade and the Environment: Mexico, NAFTA, and Beyond*. Stanford, Calif.: Stanford University Press, 2004.

Gallagher, Kevin P., ed. *Handbook on Trade and the Environment*. Northampton, Mass.: Edward Elgar, 2008.

Mander, Jerry, and Edward Goldsmith, eds. *The Case Against the Global Economy And for a Turn Toward the Local*. San Francisco: Sierra Club Books, 1996.

Vogel, David. *Trading Up: Consumer and Environmental Regulation in a Global Economy*. Cambridge, Mass.: Harvard University Press, 1995.

Websites

www.earthisland.org (Earth Island Institute site)
www.iattc.org/HomeENG.htm (Inter-American Tropical Tuna Commission site)
www.seaturtles.org (Sea Turtle Restoration Project site)
www.wto.org (WTO site)

Notes

1. This chapter focuses on two high-profile disputes resolved by the World Trade Organization (WTO), but there have been many other trade-related environmental cases, including some that do not involve the WTO.
2. Jagdish Bhagwati, "The Case for Free Trade," *Scientific American,* November 1993, 42–49.
3. Kevin P. Gallagher, *Free Trade and the Environment: Mexico, NAFTA, and Beyond* (Stanford, Calif.: Stanford University Press, 2004); James Van Alstine and Eric Neumayer, "The Environmental Kuznets Curve," in *Handbook on Trade and the Environment*, ed. Kevin P. Gallagher (Northampton, Mass.: Edward Elgar, 2008), 49–59. The hypothesis gets its name from a 1955 article by economist Simon Kuznets in which he depicted the relationship between income inequality and levels of income as an inverted U-shaped curve. In 1993 G. M. Grossman and A. B. Krueger posited a similar relationship between environmental degradation and income levels. See G. M. Grossman and A. B. Krueger, "Environmental Impacts of a North American Free Trade Agreement," in *The Mexico-U.S. Free Trade Agreement,* ed. P. Garber (Cambridge, Mass.: MIT Press, 1993), 13–56.
4. GDP conceals ecological, social, and other costs while counting as positive expenditures on prisons and cleanup of hazardous waste dumps. See Ted Halstead and Clifford Cobb, "The Need for New Measurements of Progress," in *The Case Against the Global Economy and for a Turn Toward the Local,* ed. Jerry Mander and Edward Goldsmith (San Francisco: Sierra Club Books, 1996), 197–206.
5. Herman Daly, "The Perils of Free Trade," *Scientific American,* November 1993, 54.
6. Gallagher, *Free Trade and the Environment*; Brian R. Copeland, "The Pollution Haven Hypothesis," in *Handbook on Trade and the Environment*, 60–70. According to David Vogel and Robert Kagan, globalization has produced neither policy convergence nor a race to the bottom; instead, its impacts appear to differ for developed and developing countries. See David Vogel and Robert A. Kagan, "Dynamics of Regulatory Change: How Globalization Affects National Regulatory Policies," in *Dynamics of Regulatory Change,* ed. David Vogel and Robert A. Kagan (Berkeley: University of California Press, 2004), 1–41.
7. Jagdish Bhagwati, *In Defense of Globalization* (New York: Oxford University Press, 2007).
8. David Vogel, *Trading Up: Consumer and Environmental Regulation in a Global Economy* (Cambridge, Mass.: Harvard University Press, 1995), 5.
9. Other scholars have since refined the conditions under which a "race to the top" is likely to arise. See Vogel and Kagan, "Dynamics of Regulatory Change."
10. Daniel C. Esty, "Bridging the Trade-Environment Divide," *Journal of Economic Perspectives* 15 (Summer 2001): 113–130.
11. Bhagwati, *In Defense of Globalization*.
12. Richard W. Parker, "The Use and Abuse of Trade Leverage to Protect the Global Commons: What We Can Learn from the Tuna-Dolphin Conflict," *Georgetown International Law Review* 12 (Fall 1999): 1–122.
13. U.S. Department of State, ed., *United Nations Monetary and Financial Conference: Bretton Woods, Final Act and Related Documents, New Hampshire, July 1–July 22,* 1944 (Washington, D.C.: U.S. Government Printing Office, 1944), 3–6. It is important to note that Morgenthau was arguing against mercantilism, in which each nation advances its economic self-interest in competition with others—a prevailing view at the time, and thought to be a major driver of global conflict.
14. Don Mayer and David Hoch, "International Environmental Protection and the GATT: The Tuna/Dolphin Controversy," *American Business Law Journal* 31 (1993): 187–244.
15. According to the "most favored nation" clause in Article I: "an advantage, favour, privilege or immunity granted by any contracting party to any product originating in or designed for any

other country shall be accorded immediately and unconditionally to the like product originating in, or destined for, the territories of all other contracting parties." According to the "national treatment" clause in Article III: "products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other charges of any kind in excess of those applied, directly or indirectly, to like domestic products."

16. Vogel, *Trading Up*, 14.
17. U.S. Congress, Office of Technology Assessment, *Trade and Environment: Conflicts and Opportunities,* OTA-BP-ITE-94 (Washington, D.C.: U.S. Government Printing Office, May 1992); Vogel, *Trading Up*.
18. National Research Council, *Dolphins and the Tuna Industry* (Washington, D.C.: National Academy Press, 1992).
19. 16 U.S.C. Sec. 1371(a)(2).
20. Vogel, *Trading Up*. Backdown, which was developed around 1960, works as follows: when about two-thirds of the purse seine has been brought aboard the ship and the dolphins are at the far back end of the net from the ship, the captain reverses the power, causing the back of the corkline at the back of the net to be pulled underwater and pass below the dolphins, which are mostly at the surface. Crew in speedboats are stationed at the dolphin release area to make sure they get out and prevent tuna from escaping. The Medina safety panel is an area of finer mesh at the back of the net that prevents dolphin entanglement. See Alessandro Bonanno and Douglas Constance, *Caught in the Net: The Global Tuna Industry, Environmentalism, and the State* (Lawrence: University Press of Kansas, 1996).
21. Mayer and Hoch, "International Environmental Protection and the GATT."
22. Parker, "The Use and Abuse of Trade Leverage." The proportion of U.S.-registered vessels in the ETP had declined from more than 90 percent in the early 1960s to 32 percent in 1988. Between 1981 and 1988 the number of U.S.-registered vessels in the ETP declined from ninety-seven to forty; during the same period Mexico, Venezuela, and Vanuatu combined added eighty-four new boats. By 1988 ships registered in Latin American countries accounted for half of all tuna caught in the region.
23. Ian Anderson, "Millions of Dolphins Butchered in Tuna Nets," *New Scientist*, March 17, 1988, 28.
24. *EII v. Mosbacher*, 746 F. Supp. 964 (1990).
25. Mayer and Hoch, "International Environmental Protection and the GATT."
26. Dale D. Murphy, *The Structure of Regulatory Competition: Corporations and Public Policies in a Global Economy* (New York: Oxford University Press, 2004).
27. Anthony Ramirez, "'Epic Debate' Led to Heinz Tuna Plan," *New York Times,* April 16, 1990, D1.
28. Murphy, *Structure of Regulatory Competition.*
29. IATTC staff found that dolphin mortality was associated with sets on large herds of tuna or dolphins, sets in areas where dolphin had not been chased before, sets that finished after dark, sets in strong subsurface currents that cause nets to canopy and collapse, gear malfunctions and misalignments, lack of crewmen in a raft in the backdown channel to help release dolphins, and longer (slower) sets. See Parker, "The Use and Abuse of Trade Leverage."
30. Parker, "The Use and Abuse of Trade Leverage."
31. Vogel, *Trading Up*.
32. Ibid.
33. Quoted in Associated Press, "Judge Orders Tuna Import Ban Over Dolphin Kill," *New York Times,* August 30, 1990, 21.
34. Mayer and Hoch, "International Environmental Protection and the GATT."
35. Elizabeth DeSombre, personal communication, November 2010.
36. John P. Manard Jr., "GATT and the Environment: The Friction Between International Trade and the World's Environment—the Dolphin and Tuna Dispute," *Tulane Environmental Law Journal* 5 (May 1992): 373–428.
37. Ibid.
38. Quoted in Mayer and Hoch, "International Environmental Protection and the GATT," 190.
39. Quoted in Vogel, *Trading Up,* 114.
40. Ibid.
41. Peter Passell, "Economic Scene: Whose Rules?" *New York Times,* February 19, 1992, D2; Vogel, *Trading Up*.
42. Bonanno and Constance, *Caught in the Net*.
43. Keith Schneider, "Balancing Nature's Claims and International Free Trade," *New York Times,* January 19, 1992, D5.
44. Elizabeth R. DeSombre, *Domestic Sources of International Environmental Policy: Industry, Environmentalists, and U.S. Power* (Cambridge, Mass.: MIT Press, 2000).
45. Marlo Pfister Cadeddu, "Turtles in the Soup? An Analysis of the GATT Challenge to the United States Endangered Species Act Section 609 Shrimp Harvesting Nation Certification Program for the Conservation of Sea Turtles," *Georgetown International Environmental Law Review* 11 (Fall 1998): 179–207.
46. Parker, "The Use and Abuse of Trade Leverage."
47. Ibid.
48. Apparently, prior to negotiating the La Jolla Agreement, Mexican and Venezuelan officials had indicated to State Department negotiators they would support a moratorium on dolphin sets beginning in 1994 in exchange for a lifting of the U.S. embargo in 1992, and this agreement formed the basis for legislation introduced by Rep. Gerry Studds, D-Mass., in the summer of 1992. See Parker, "The Use and Abuse of Trade Leverage."
49. Ibid.
50. Michael Scott, "The Tuna-Dolphin Controversy," *Whalewatcher*, August 1998.
51. Ibid.
52. Quoted in Kenneth Brower, "The Destruction of Dolphins," *Atlantic,* July 1989, 58.
53. Scott, "The Tuna-Dolphin Controversy."
54. U.S.C. 16 Sec. 1385.
55. DeSombre, *Domestic Sources of International Environmental Policy.*
56. W. F. Perrin, B. Wursig, and J. G. M. Thewissen, eds., *Encyclopedia of Marine Mammals* (San Diego: Academic Press, 2002),

1269–1273.

57. *Brower v. Evans*, 257 F.3d 1058 (2000).
58. Katie O'Connell, "Tuna-Dolphin Update," *Whales Alive!* XI, April 2002.
59. "Mexico Will Take Steps Next Week if USA Won't Comply," *Whales Alive!* April 11, 2002. Available at http://csiwhalesalive.org/csi02202.html.
60. "Commerce Department Determines No Significant Adverse Impact of Fishing on Dolphin Populations," Press release, NOAA 01-168, December 31, 2002.
61. Christopher Marquis, "Rule Weakening Definition of 'Dolphin Safe' Is Delayed," *New York Times,* January 10, 2003, A20.
62. *Earth Island Institute v. Evans*, No. C 03-0007 TEH (2004).
63. The WTO replaced GATT as an international organization, but GATT still serves as the WTO's umbrella treaty for trade in goods.
64. Available at www.wto.org/english.
65. Gregory C. Shaffer, "The Nexus of Law and Politics: The WTO's Committee on Trade and Environment," in *The Greening of Trade Law,* ed. Richard H. Steinberg (Lanham, Md.: Rowman & Littlefield, 2002), 81–111.
66. Leslie Burdick, "Sea Turtles Swim for Survival," *Christian Science Monitor,* August 29, 1989, 12.
67. Quoted in ibid.
68. Anne Swardson, "Taking the Turtle Test on World Trade," *Washington Post,* August 19, 1998, C9.
69. Charles A. Oravetz, "Development of Turtle Excluder Devices (TEDs) and Their Potential Applicability to ASEAN Nations," Southeast Fisheries Science Center, National Marine Fisheries Service, 2001. Available at www.arbec.com.my/sea-turtles/art32julysept01.htm.
70. Cadeddu, "Turtles in the Soup?"
71. William Booth, "Amid Threats, U.S. Not Ensuring Turtles' Safety," *Washington Post,* July 19, 1989, A3.
72. Quoted in William Booth, "U.S. to Enforce Rules Protecting Sea Turtles," *Washington Post,* September 6, 1989, A4.
73. National Research Council, *Decline of the Sea Turtles: Causes and Prevention* (Washington, D.C.: National Academy of Sciences, 1990).
74. John Lancaster, "Study Blames Shrimpers for Sea Turtle Deaths," *Washington Post,* May 20, 1990, A10.
75. Gustavo Grunbaum, "Dispute Settlement and U.S. Environmental Laws," in *The Greening of Trade Law,* 51–80.
76. DeSombre, *Domestic Sources of International Environmental Policy*.
77. *Earth Island Institute v. Christopher,* 913 F. Supp. 599 (1995).
78. Cadeddu, "Turtles in the Soup?"
79. Varamon Ramangkura, "Thai Shrimp, Sea Turtles, Mangrove Forests and the WTO: Innovative Environmental Protection Under the International Trade Regime," *Georgetown International Environmental Law Review* 15 (Summer 2003): 677–708.
80. World Trade Organization, "United States—Import Prohibition of Certain Shrimp and Shrimp Products," Report of the Appellate Body, October 12, 1998, 75.
81. Quoted in John Zarocostas, "U.S. Loses Appeal on Saving Sea Turtles," *Journal of Commerce Week,* October 14, 1998.
82. Quoted in Danielle Knight, "Environmentalists Protest WTO Ruling on Shrimp Nets," Inter Press Service, October 13, 1998.
83. Cadeddu, "Turtles in the Soup?" In 2003 the Supreme Court declined to grant plaintiffs' petition for writ of certiorari. See Sean D. Murphy, "Unsuccessful Challenge to Department of State Shrimp-Turtle Guidelines," *American Journal of International Law* 97 (July 1, 2003).
84. Louise DeLaFayette, "WTO—GATT—Trade and Environment—Import Restrictions—Endangered Species," *American Journal of International Law* 96 (July 1, 2002): 685–692.
85. Ibid.
86. Alan Oxley, "Implications of the Decisions in the WTO Shrimp Turtle Dispute," February 2002. Available at www.tradestrategies.com.au.
87. DeSombre, *Domestic Sources of International Environmental Policy*.
88. Current data available at www.nmfs.noaa.gov/pr/species/mammals/cetaceans/.
89. Eryn Gable, "NMFS Changes Requirements for Shrimping Gear," *Greenwire,* February 24, 2003; "Kemp's Ridley Numbers Improving in Texas," *Greenwire,* July 2, 2002; Kevin Sieff, "One Hatchling at a Time," *Brownsville Herald,* July 2, 2006.
90. Gable, "NMFS Changes Requirements."
91. Allison Winter, "Loggerhead Turtle Nesting Declines Along Atlantic Coast," *E&E News PM,* September 14, 2007.
92. Patrick Reis, "Fishing Gear Poses Greatest Threat to Sea Turtles—Study," *Greenwire,* April 6, 2010.
93. "Poachers Stealing More Eggs off Florida Beaches," *Greenwire,* August 2, 2002; Gable, "NMFS Changes Requirements."
94. Natalie M. Henry, "Enviros Ask Judge to Protect Turtles, End Longlining in Pacific," *Greenwire,* November 4, 2003; Michael Burnham, "New Techniques Reduce Sea Turtle Deaths, Feds Say," *Greenwire,* January 6, 2004.
95. Only a small percentage of juvenile sea turtles survive the decades it takes to reach reproductive age, so the death of adults has long-term impacts on species survival.
96. Otto Pohl, "Challenge to Fishing: Keep the Wrong Species Out of Its Huge Nets," *New York Times,* July 29, 2003, F3.
97. Allison A. Freeman, "Nets Kill Hundreds of Dolphins, Whales Daily—Report Says," *Greenwire,* June 9, 2005.
98. See, for example, Abram Chayes and Antonia Handler Chayes, *The New Sovereignty: Compliance with International Regulatory Agreements* (Cambridge, Mass.: Harvard University Press, 1995); J. Owen Saunders, "Trade and Environment: The Fine Line Between Environmental Protection and Environmental Protectionism," *International Journal* XLVIII (Autumn 1992): 723–750.
99. Parker, "The Use and Abuse of Trade Leverage."
100. Kevin P. Gallagher, "Introduction," in *Handbook on Trade and the Environment*, 1–16.
101. Elizabeth R. DeSombre and J. Samuel Barkin, "Turtles and Trade: The WTO's Acceptance of Environmental Trade Restrictions," *Global Environmental Politics,* February 2002, 18.

102. Elizabeth R. DeSombre, *Flagging Standards: Globalization and Environmental, Safety, and Labor Regulations at Sea* (Cambridge, Mass.: MIT Press, 2006).

103. Robyn Eckersley, "The Big Chill: The WTO and Multilateral Environmental Agreements," *Global Environmental Politics,* May 2004, 24–50.

104. Eric Neumayer, "The WTO and the Environment: Its Past Record Is Better Than Critics Believe, but Future Outlook Is Bleak," *Global Environmental Politics,* August 2004, 1–8.

CHAPTER 13

Backlash

Wise Use, Property Rights, and Antienvironmental Activism in the 1990s

In 1995 a reaction against environmentalism that had been growing in scale and intensity since the late 1980s found expression in Congress with the ascension of the Republican Party. Activists across the country stepped up their battles against environmental rules, and their efforts culminated in several legislative proposals: bills to compensate property owners whenever government regulations reduced the value of their property, a revamped Clean Water Act that dramatically curtailed the preservation of wetlands, and a revised Endangered Species Act (ESA) that virtually dismantled protections for imperiled species. The 104th Congress ultimately did not pass any of the major antienvironmental legislation proposed, in part because environmentalists mobilized rapidly to raise public awareness and resist these incursions. Although they retreated, opponents of