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ARTICLE: LACRIT V SYMPOSIUM; CLASS IN LATCRIT: THEORY AND PRAXIS I A WORLD OF ECONOMIC INEQUALITY; BORDER CROSSINGS; Beyond Eco-Imperialism: An Environmental Justice Critique of Free Trade

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As trade ministers from 135 nations gathered in Seattle for the Third Ministerial Conference of the World Trade Organization (WTO) in late November 1999, over 50,000 protesters, including farmers, trade unionists, and environmentalists, joined forces in a raucous demonstration of opposition to the current organization of the global economy. n1 The massive protests, which quickly became known as the "Battle in Seattle," featured teach-ins, rallies, marches and other events designed to draw attention to the WTO's impact on labor, environmental, food safety, human rights and consumer protection measures. n2

Media coverage of the issues underlying the protests emphasized the WTO's threat to U.S. environmental and labor laws, n3 and posited a conflict between developed countries' concerns for workers' rights and environmental protection on the one hand, and developing countries' needs for unfettered economic growth on the other. n4 In so doing, the media [*980] portrayed environmentalism as a new form of imperialism, whereby the wealthy, developed countries of the North n5 impose their environmental preferences and priorities on the poor, developing countries of the South. n6 While this carefully constructed media image contains a kernel of truth, n7 it also perpetuates two powerful myths that obscure the relationship among free trade, environmental protection and social justice. The first myth is that environmental protection is a luxury that developing countries can ill afford. The second myth is that industrialized countries have generally played a leadership role in the protection of the global environment. n8 This article attempts to deconstruct these myths in order to [*981] critique the environmental consequences of trade liberalization from an environmental justice perspective. n9

In order to place the environmental imperialism claim in proper context, some historical background is appropriate. Although the tension between free trade and environmental protection had been building for quite some time, the conflict came to a head in 1991 when a dispute resolution panel, convened pursuant to the General Agreement on Tariffs and Trade (GATT), found that a U.S. embargo on Mexican tuna caught with dolphin-endangering "purse seine" nets violated the GATT. n10 The [*982] tuna/dolphin decision ushered in a decade of debate over the environmental impact of liberalized trade, and over possible strategies for integrating environmental protection into the GATT/WTO framework. n11 North-South tensions permeated the debate, with developing countries accusing the North of "environmental imperialism," n12 and industrialized countries accusing the South of "environmental dumping." n13

One important element missing in much of the scholarly literature about trade and the environment is a critical assessment of the environmental imperialism claim. To what extent do the North's efforts to integrate environmental protection into the international trade regime constitute an imposition of Northern values and preferences on less powerful nations? This article attempts to address this question by situating it in the larger context of North-South economic relations and by examining how the economic benefits and environmental burdens of liberalized trade are distributed.

Part I of the article discusses the myth that environmental protection is a luxury that the South can ill afford. It describes how international trade promotes environmental degradation in developing countries and threatens the physical health, cultural integrity and economic well being [*983] of the Southern poor. Included in this discussion is an analysis of how the North reaps the benefits of liberalized trade while exporting the environmental costs to the South. Part I concludes that environmental protection, far from being a luxury, is necessary to the protection of the natural resource base upon which the South relies for survival.

Part II of the article discusses the myth that industrialized countries have generally played a leadership role in the protection of the global environment. It examines the contribution of the North to the deterioration of the global environment, and identifies the North's resource-intensive, consumption-oriented lifestyle as the primary cause of global environmental degradation. Regrettably, this lifestyle can only be maintained through the ongoing appropriation of the natural resources of the South. Part II concludes that the North, far from being a global environmental leader, is more accurately described as a global environmental looter.

Part III of the article examines why developing countries have denounced Northern proposals to incorporate environmental protection into the WTO framework as environmental imperialism, and reveals that many of these proposals attempt to impose Northern environmental standards on the South without addressing the North's far more ecologically damaging behavior. Part III recognizes the validity of the environmental imperialism charge and suggests several approaches to the trade/environment debate that address the North's disproportionate contribution to global environmental degradation rather than imposing Northern ecological preferences on the South.

Part IV concludes the article by redefining the term "environmental imperialism" as the North's systematic and ongoing appropriation of the South's ecological resources. It calls for the reconciliation of social justice and environmental protection through policy proposals designed to scale back the North's over-consumption of the world's resources, and through support of grassroots resistance to environmental degradation. The article calls for close scrutiny of initiatives to reconcile trade and the environment in order to ensure that they promote environmental justice and do not merely reinforce Northern political and economic dominance.

I. Environmental Protection: Luxury or Necessity?

The myth that environmental protection is a luxury that developing countries can ill afford rests on the assumption that environmental protection is an obstacle to economic development and is irrelevant to the immediate needs of the poor. n14 This Part critically assesses this myth by contrasting the environmentalism [*984] of the rich with the environmentalism of the poor, and by examining the impact of environmental degradation on the Southern poor and on the natural resource base required for economic development.

A. Environmental Justice: North and South

The environmental movement in the United States has long been perceived as white, middle class, suburban, and concerned first and foremost with the protection of parks, wilderness areas and endangered species. n15 The environmental justice movement, which emerged in the 1980's, challenged the priorities of the traditional environmental movement by making an explicit connection between environmental degradation and issues of poverty, racism, and democracy. n16 Environmental justice activists argued that

the traditional environmental movement and the government agencies charged with environmental protection neglected the distributional consequences of environmental degradation and failed to effectively incorporate in environmental decision-making the communities bearing the greatest environmental risk. n17 As a result, poor people and racial and ethnic minorities suffer disproportionately high levels of exposure to toxic substances while whites residing in more pristine suburban neighborhoods reap the benefits of environmental protection. n18 These allegations were confirmed by studies that found income and racial bias in both the location of hazardous waste facilities, and in the enforcement of statutes that set standards for air, water and waste disposal. n19 [*985]

The movement to preserve the global environment has likewise been perceived as a Northern, middle class movement concerned primarily with the protection of nature. n20 Northern environmentalists have typically adopted a technocratic approach to environmental protection, n21 emphasizing global management of the environment based on scientific principles [*986] while neglecting Southern aspirations for social justice, cultural rights, selfdetermination and democracy. n22 Southern non-governmental organizations (NGO's) and grassroots movements have challenged the North's technocratic approach by placing environmental issues in the context of international inequality and the struggle for social justice. n23 Southern environmentalists have charged that Northern development policies and consumption patterns are the primary causes of resource depletion and global pollution and that the world economic order has institutionalized Southern poverty, which places additional stress on the environment. n24 [*987] Indeed, one prominent Southern environmentalist has argued that the South is bearing a disproportionate share of the environmental consequences of globalization, and has described this phenomenon as environmental apartheid. n25

The allegations of Southern environmentalists have been supported by studies commissioned by the United Nations Development Program, n26 and are explored below in the context of two specific environmental problems: the export of hazardous wastes and deforestation. These examples are designed to illustrate the North-South distribution of the environmental costs of liberalized trade and to critically assess the notion that environmental protection is a luxury that the South can ill afford.

B. Toxic Colonialism: the Export of Environmental Hazard

The North-South distribution of the environmental consequences of liberalized trade is perhaps most apparent in the context of the export of polluting industries and hazardous wastes from the North to the South. Indeed, the North-South distribution of environmental degradation was explicitly recognized by World Bank Chief Economist Lawrence Summers (subsequently U.S. Treasury Secretary) in a controversial 1991 memorandum outlining why the World Bank should encourage the migration of dirty industries from the North to the South. n27 Mr. Summers cited three reasons in support of this policy recommendation. n28 First, since the costs of pollution are generally calculated based on the foregone income caused by the premature death and illness of wage earners, [*988] the income lost through the death of a worker in a developing country is much less per unit of pollution than the income lost through the death of a worker in a developed country. n29 Second, less contaminated countries, such as African countries, are the logical places to dump pollution since the marginal, incremental costs of pollution are much lower than in heavily polluted places. n30 Finally, the demand for a clean environment is likely to be less in poor countries with higher mortality. n31

Newspapers throughout the world quoted the Summers memorandum n32 and the outraged responses from environmental organizations. n33 Although Mr. Summers claimed that his comments were not intended as serious policy recommendations, the memorandum served to alert environmentalists to the distributional consequences of neoclassical economic thinking divorced from ethical and social justice considerations. n34

The export of hazardous wastes from North to South poses serious risks to developing countries. From 1978 to 1998, per capita waste generation in industrialized countries increased almost threefold. n35 The

United Nations Environment Program estimates that approximately 440 million tons of hazardous wastes are generated annually worldwide and [*989] that approximately 10 percent of these wastes are exported across international borders. n36

Hazardous waste generators in the North export wastes to the South because strict environmental regulation and citizen opposition to the location of waste disposal facilities have increased the cost of waste disposal in the North. n37 By contrast, hazardous waste disposal is significantly cheaper in the South due to weak environmental regulation, lax enforcement, and government corruption. n38 Moreover, poverty and debt create powerful incentives for developing countries to accept hazardous waste shipments from other nations in order to earn badly needed foreign exchange. n39

Notwithstanding attempts to regulate the waste trade by treaty, and despite the decision of many developing countries to impose unilateral bans on the importation of hazardous wastes, n40 the hazardous waste trade [*990] continues to flourish. n41 Government officials have intercepted illegal shipments from the United States destined for Ecuador, Guinea, Haiti, Malaysia, Mexico, Panama, and Sri Lanka. n42 East European countries have intercepted thousands of deceptively labeled waste shipments from Western Europe, including shipments labeled as humanitarian aid. n43 Environmentalists have rightfully denounced this practice as "toxic colonialism." n44 [*991]

However, it is not only the illegal waste trade that imperils the health of people in the South. The expansion of the legal waste trade in recyclable materials is also a significant factor. n45 The export of wastes for recycling is believed to account for 90 percent of the North's total hazardous waste exports, n46 and can be as harmful as the illegal waste trade. While recycling is generally viewed as environmentally beneficial, many recycling operations in the South are extremely hazardous due to improper waste management and lack of adequate worker protection. n47 For example, millions of used car batteries are shipped from the United States to Brazil, China, India, and South Africa, among others, to be melted down for lead recovery. n48 Without proper protective equipment, workers are exposed to dangerous lead levels, causing headaches, stomach cramps, dizziness, and kidney pains. n49 Prolonged exposure can cause more serious problems, such as kidney damage, reproductive problems, and brain impairment in children. n50 In addition, sham recycling is a growing problem. In many instances, hazardous waste generators label wastes "for recycling" in order to circumvent bans and restrictions on hazardous waste disposal, thereby blurring the line between the legal and illegal hazardous waste trade. n51 Whether legal or illegal, the hazardous waste trade has imposed significant health and safety costs on the South.

The consequences of improper waste disposal have been devastating for developing countries. n52 Improper waste disposal poses particular [*992] health and safety risks in the South because many developing countries lack the legal and administrative infrastructure to regulate waste disposal. n53 Dumpsites are often located near population centers, and poor people are exposed to hazardous wastes when they scavenge for items to use or sell. n54 In addition, the climate of many developing countries may increase the risk of human exposure to hazardous wastes. For example, heavy rainfall in tropical countries may cause wastes to leach into groundwater, thereby harming people who drink untreated water. n55 The dumping of wastes into rivers kills fish and injures both those individuals who earn their livelihoods through fishing, and those who rely on the rivers for drinking water. n56 Developing countries that receive hazardous wastes often experience soil and groundwater contamination, air pollution and threats to natural resources. n57 While Southern elites can insulate themselves to some extent from the consequences of the waste trade by moving into more pristine communities with better access to clean air and water and uncontaminated land, it is the poor who must suffer the consequences of environmental degradation. n58 Far from being a luxury, environmental protection is necessary to preserve the health, safety and well-being of the Southern poor.

While the South bears the environmental costs of the hazardous waste trade, the North reaps significant economic benefits. The shipment of hazardous wastes from North to South allows developed countries to

maintain a level of economic activity that exceeds domestic waste disposal capabilities. The waste trade thereby reduces incentives to minimize waste generation, maintains the illusion of unlimited economic growth, and imposes the costs of industrialization on developing countries without the corresponding benefits of industrial production. n59 [*993]

C. Deforestation: Clearing the Forest for the Trees

The North-South distribution of the environmental consequences of free trade is also well illustrated by the problem of deforestation. Forests harbor more than half of all plant and animal species on earth and provide a range of valuable natural services, including flood control, erosion control and regulation of local and regional rainfall. n60 They also mitigate global warming by absorbing carbon dioxide and are therefore referred to as carbon sinks. n61 At the same time, forests are a valuable commercial resource, and the global trade in forest products has climbed steadily from \$ 29 billion in 1961 to \$ 139 billion in 1998. n62 Since 1850, the world has lost one third of its forests, and the rate of loss is rapidly accelerating. Most deforestation has occurred in the temperate regions of the North, but forest loss is now occurring more rapidly in the tropical regions of the South, which contain 60 percent of the world's remaining forests. n63

Northern environmentalists have depicted deforestation as a global problem, and have urged the South to protect its tropical forests in order to reduce global warming, preserve resources needed for biotechnological and medical research, and preserve the beauty of nature. n64 However, the North's depiction of forest preservation as a universal concern of all humankind masks both the underlying causes and the distributional consequences of deforestation.

Commercial logging is the major contributor to global deforestation, and it threatens both the tropical forests of the South and the temperate and boreal forests of Canada, the United States, and Russia. n65 Indeed, while Northern environmentalists have focused on the protection of tropical forests, approximately 80 percent of the documented international timber trade comes from the temperate and boreal forests of the North. n66 Industrialized countries also account for approximately 80 percent of the value of forest product imports. n67 The North's demand for forest products and the North's failure to protect its own forests account [*994] for a significant percentage of global deforestation attributable to the international trade in forest products. n68 However, as demand for forest products grows, the South is rapidly increasing its share of global forest product exports. Brazil, Indonesia and Malaysia are now in the ranks of the top 10 forest product exporters. n69

Notwithstanding the serious levels of deforestation presently being experienced, a controversial proposed agreement championed by the United States at the 1999 WTO Ministerial Conference in Seattle could increase the pressure placed by global commerce on the world's forests. The proposed agreement, denounced by environmentalists as the "global free logging agreement," would eliminate both tariff and non-tariff trade barriers on pulp, paper, furniture and other forest products. n70 Such non-tariff barriers may include border restrictions to prevent entry of invasive species, export bans to reduce logging, and government procurement and eco-labeling practices designed to promote the use of recycled paper and sustainably harvested wood products. n71 The proposed agreement would [*995] accelerate the process of deforestation by promoting the expansion of trade in forest products. n72

Expanded commercial logging benefits transnational timber corporations and their Southern partners. For many years, timber companies from the North have been conducting commercial logging operations in developing countries. n73 For example, European firms have been cutting down timber in Africa, and Japanese firms joined forces with local companies to clear the forests of Indonesia, Malaysia, and other Southeast Asian countries. n74 With their own forests depleted, timber companies from Indonesia, Malaysia and other Asian countries have, in turn, purchased logging rights in other developing countries, including Brazil, Cameroon, Guyana, Papua New Guinea, and Suriname. n75 Transnational timber corporations have also joined forces with local investors to set up related woodproducts operations, such as sawmills and pulp and paper operations, that utilize locally supplied wood. n76

A significant factor promoting over-exploitation of forests in the South is debt. The World Bank and the International Monetary Fund have accelerated deforestation in the South by promoting export-led structural adjustment policies designed to ensure loan repayment. These policies have resulted in the unsustainable export of forest products and in the clearing of tropical forests to produce export commodities such as coffee, cacao, and cotton. n77 Declining terms of trade for primary commodities have caused developing countries to attempt to increase their output by clearing additional forests as well as using existing agricultural [*996] lands more intensively. n78 The World Bank and regional development banks have also funded energy, mining, resettlement and transportation projects in the South that have contributed greatly to deforestation, and have resulted in the massive displacement of indigenous and local people from their traditional lands. n79 Mining, energy development and related activities represent the second largest threat to forests after logging. n80

While transnational corporations and Southern timber, mining, and agribusiness companies reap the benefits of deforestation, the costs are often borne by the Southern poor. The commercial exploitation of tropical forests has had significant social and economic consequences. Commercial logging operations as well as mining, ranching and agribusiness, displace indigenous and local communities, destroying their social structure and economic base, driving them to survive on smaller parcels of land, and ultimately creating an exodus to the cities. n81 Deforestation produces [*997] flooding and soil erosion, and harms both subsistence and commercial farmers and fishermen as rivers fill with silt from the erosion of terraces and hillsides. n82 Deforestation has been at the root of catastrophic events in Asia, Africa and Latin America that have caused massive injury and economic dislocation. For example, deforestation was a major cause of the Ethiopian droughts and famines of the 1970s and 1980s. n83 Deliberate burning of forests for palm oil and pulpwood plantations was the cause of the Indonesian wildfires that blanketed Indonesia, Singapore, Malaysia, Southern Thailand, and part of the Philippines in smoke in 1997 and 1998, and forced some 20 million people to breathe contaminated air for prolonged periods. n84 Finally, the massive clearing of the Central American rainforests for cattle ranching in the 1960s and 1970s made Honduras and Nicaragua particularly vulnerable to the devastating floods caused by Hurricane Mitch in 1998. n85 These floods allegedly set back development in Honduras and Nicaragua by 30 years. n86 Thus, deforestation affects not only those who live on or near tropical forests and rely on them directly for their survival, but also those who rely on the services provided by forest ecosystems, such as erosion control, flood control and regulation of rainfall.

Deforestation also has global consequences, and the costs and benefits are likewise unevenly distributed between North and South. Deforestation degrades the global environment through loss of biodiversity, release of greenhouse gases and loss of carbon sinks. n87 The North is responsible for 90 percent of the anthropogenic greenhouse gas emitted during the past 150 years, and it has, therefore, benefited from its ability to use the global atmosphere as a sink for the harmful by-products of industrialization. n88 However, Southern countries will bear a disproportionate share of the environmental consequences of global warming, including droughts, floods, rise in sea level, and more frequent storms and [*998] hurricanes, due to their more vulnerable geographies and economies. n89 Loss of biodiversity will also have disproportionate impacts in the South. Tropical forests contain most of the world's biodiversity, providing habitat for 70 percent of all known species. n90 For the North, loss of biodiversity constitutes foregone opportunities for biotechnology, agribusiness and pharmaceutical industries to commercially exploit the valuable raw materials of the South. n91 For local and indigenous communities in the South, biodiversity represents food, medicine, clothing, shelter, and cultural integrity. n92 Conserving biodiversity is essential to the physical and cultural survival of the more than 500 million people who depend on tropical forests for their wellbeing, and includes fighting to protect rights to land, natural resources and cultural knowledge. n93 [*999]

As the hazardous waste and deforestation examples illustrate, the current organization of the global economy enables the North to reap the benefits of expanded trade while imposing the environmental costs

on the South. In general, it is the Southern poor who bear the consequences of environmental degradation and whose health, safety and livelihoods are thereby jeopardized. Contrary to the myth that environmental protection is a luxury that the South can ill afford, environmental protection is necessary to the preservation of the natural resource base upon which the population of the South relies for its survival. It is therefore not surprising that Southern environmental movements are rooted in material conflicts and in the struggle for social justice. n94 [*1000]

The hazardous waste and deforestation examples also illustrate how liberalized trade under the GATT/WTO regime exacerbates pollution and natural resource depletion. By removing both tariff and non-tariff barriers to trade in forest products, the "global free logging agreement," advocated by the United States at the WTO Ministerial Conference in Seattle, would expand global commerce in forest products and accelerate deforestation. n95 With respect to the hazardous waste trade, the GATT/WTO dispute panel and appellate rulings discussed in Part III of this article raise serious questions about whether trade restrictions imposed under environmental treaties to promote waste minimization and curb the hazardous waste trade would survive a WTO challenge. n96 Finally, the GATT/WTO rulings threaten to undermine environmental quality by creating uncertainty as to whether domestic legislation to protect the local or global environment would run afoul of WTO requirements. n97 Countries might very well forego vigorous environmental protection measures (including taxes and trade restrictions) in order to avoid becoming embroiled in lengthy and protracted trade disputes. n98

II. The North: Global Leader or Global Looter?

The second myth underlying the media image of environmental imperialism is that the North is a global leader in environmental protection. It follows from this myth that the North's efforts to incorporate environmental protection into the international trade regime are designed to protect the global ecosystem by elevating the environmental standards of developing countries. While the North in general and the United States in particular have made significant progress in the protection of the domestic environment during the last three decades, n99 the North's role with respect to the global environment is far more problematic. [*1001]

The international community has long identified the profligate consumption patterns of the North as the primary cause of global environmental degradation. n100 Indeed, Gro Harlem Brundtland, former Prime Minister of Norway, and Chair of the World Commission on Environment and Development, whose work popularized the term "sustainable development," recognized that "it is simply impossible for the world as a whole to sustain a Western level of consumption for all. In fact, if seven billion people were to consume as much energy and resources as we do in the West today, we would need ten worlds, not one, to satisfy all our needs." n101

The North, with 20 percent of the world's population, currently consumes a disproportionate share of the world's resources, including 85 percent of the world's timber, 75 percent of its metals, 70 percent of its energy, and 60 percent of its food. n102 The United States has the highest per capita consumption levels in the world, but consumption rates in Japan and Western Europe are only slightly less. n103

Environmentalists have pointed out that the North's consumption patterns can only be maintained through the appropriation of the natural resources (timber, petroleum, metals, agricultural commodities, biodiversity) and waste sinks (forests, waste disposal facilities) of the South. n104 A team of researchers at the Center for Sustainability Studies in Xalapa, Mexico, developed what they call the "ecological footprint" of 52 nations. This term refers to the amount of biologically productive land and [*1002] water ("natural capital") that each country must either possess or appropriate in order to maintain its level of consumption. n105 The researchers found that the Netherlands, United States, Belgium, Germany, Switzerland, United Kingdom, Japan, and Israel were among the highest per capita importers of natural capital. n106 In other words, these countries utilized far more natural capital (both natural resources and waste sinks) than they

possessed. The Netherlands, for example, requires a land mass over 17 times its size in order to satisfy the national demand for energy, food and forest products. n107

The ability of the North to internalize the benefits of economic growth while shifting the environmental externalities to the South, and to the global commons, has masked the limits of the North's growth-oriented development model. n108 Proponents of the North's development model argue that free trade promotes economic growth and thereby provides developing countries with the financial means to increase expenditures on environmental protection. n109 This model assumes that economic growth is a positive-sum game and that it is possible for all countries to achieve the level of development of the North. n110 However, as the ecological footprint study illustrates, natural resources are finite, and over-consumption by one country requires underconsumption by another. n111 [*1003] The North is living far beyond its ecological means, and the South cannot "catch up" without exceeding the limits of the global ecosystem. n112 Because it is impossible for both North and South to be net importers of ecological goods and services, economic growth can no longer be viewed as the solution to the problem of poverty and environmental degradation in the South. n113 Ecological economists have warned that the global economy is rapidly approaching the limits of the global ecosystem's ability to sustain continued economic expansion. n114 Far from lifting all boats, the rising tide of globalization threatens to burst through the banks. n115

Globalization has obscured the fact that the ecological limits of local ecosystems have already been exceeded because production and consumption are physically separated. n116 For example, when Maine cod fisheries went into decline due to overfishing, consumers remained blissfully unaware of the problem because they could purchase Russian cod. n117 When Costa Rican forests were cleared, Costa Rica simply imported logs from elsewhere to keep its sawmills operating. n118 The separation between production and consumption creates disincentives to the conservation of local resources and the inability to assess or manage distant [*1004] sources of supply. n119 This problem is exacerbated by the failure of commodity prices to incorporate ecological damage and human health costs incurred in the production process. n120 As a result, all countries maximize global resource exploitation, which increases total economic production and accelerates the depletion of natural resources. n121

Free trade facilitates the North's over-consumption of the world's resources. Indeed, the term "environmental imperialism," the traditional meaning of which is discussed below, aptly describes the North's systematic appropriation of the South's natural resources and waste sinks. Free trade also obscures the degree to which local ecological limits have been surpassed, and perpetuates the myth of economic growth as the solution to global inequality and environmental degradation. Far from being global leaders in environmental protection, industrialized countries are more accurately described as global looters.

III. Beyond Environmental Imperialism

Despite the fact that the South bears a disproportionate share of the environmental consequences of trade liberalization, much of the opposition to the integration of environmental protection into the international trade regime has come from developing countries. n122 As explained more fully below, this opposition is due to the North's historic use of trade sanctions to impose its environmental preferences on the South while neglecting to address the North's far more ecologically damaging behavior. This Part provides the background to the trade/environment debate, describes some of the proposals advanced by the North to reconcile free trade and environmental protection, outlines the objections of developing countries, and proposes alternative approaches.

A. Unilateral Trade Restrictions: The Empire's New Clothes?

The United States has long used trade sanctions to compel other nations to implement environmental conservation measures. n123 However, [*1005] the legality and legitimacy of unilateral trade restrictions n124 to protect the environment did not become the subject of intense international debate until 1991, when a GATT dispute resolution panel found that a U.S. embargo on Mexican tuna caught with dolphin-killing

"purse seine" nets violated the GATT. n125 The tuna/dolphin decision exposed the previously obscure link between trade and the environment, n126 and represented the first volley in a long battle over the legality under GATT/WTO of unilateral trade restrictions designed to protect the environment. Three years after the 1991 tuna/dolphin decision, the European Economic Community challenged the United States' embargo on tuna exports from intermediary nations that failed to certify that the tuna had been caught with dolphinsafe nets. In 1994, a GATT dispute resolution panel once again ruled against the United States. n127 In 1996, the WTO Appellate Body [*1006] determined that the U.S. violated the GATT by imposing discriminatory pollution standards on gasoline imports from Venezuela and Brazil. n128 Finally, in 1998, the WTO Appellate Body found that the United States violated the GATT by imposing an embargo on shrimp from Pakistan, India, Thailand, and Malaysia on the grounds that these countries failed to require shrimp trawlers to install devices to protect endangered sea turtles. n129

The tuna/dolphin, shrimp/turtle and reformulated gasoline cases brought to a head the conflict between free trade and environmental protection, and the divergent views of Northern environmentalists and developing [*1007] countries with respect to the use of unilateral trade restrictions to promote environmental conservation. In general, Northern environmentalists defended the use of unilateral trade restrictions as an appropriate mechanism to promote the internalization of environmental costs, and denounced the WTO/GATT decisions. n130 Southern environmentalists and developing countries condemned the North's unilateral imposition of its environmental preferences on the South. n131

Northern environmentalists argue that incorporating the costs of resource depletion and pollution into product prices can mitigate many of the environmental harms arising from liberalized trade. n132 They claim that goods produced under inadequate environmental standards should be viewed as goods being sold for less than their true cost of production--a phenomenon they call environmental dumping. n133 Northern environmentalists contend that it is appropriate for governments to respond to environmental dumping by imposing unilateral trade restrictions, such as embargoes, or by equalizing the terms of trade through "countervailing duties" or "antidumping tariffs" on imports from nations with lower environmental standards. n134 Northern environmentalists have also advocated [*1008] upward harmonization of environmental standards across jurisdictions through multilateral agreements as a more long-term approach to the problem of environmental dumping. n135

Developing countries have expressed concern that Northern environmentalists' demands for incorporation of environmental costs in product prices are merely disguised protectionist measures designed to maintain the economic dominance of the North by limiting the South's access to Northern markets. n136

Developing countries have condemned unilateral trade restrictions, eco-duties, and international agreements designed to harmonize environmental standards as intrusions on their sovereign resource management and pollution control decisions. n137 Many developing countries view the North's attempt to impose its pollution control and resource conservation standards on the South as paternalistic and hypocritical given the North's historic and ongoing over-exploitation of the planet's resources. n138 Furthermore, the North tends to prioritize longerterm and [*1009] more global issues, such as ozone depletion, climate change, and wildlife conservation, and to neglect issues of immediate, local concern to developing countries, such as basic environmental infrastructure (water systems and sewers), the dumping of outmoded technologies and banned products in developing countries (such as pesticides), the hazardous waste trade, poverty, food security and desertification. n139 Confronted with environmental demands from the North that reflect Northern interests and priorities, many developing countries have denounced the North's use of unilateral trade restrictions to promote environmental protection as environmental imperialism. n140

There are three fundamental flaws in the North's proposals to reconcile free trade and environmental protection. First, these proposals attempt to change the behavior of the South without addressing the far more ecologically damaging behavior of the North. Environmental trade restrictions thereby become yet

another tool for dictating the terms of the North's appropriation of the South's natural resources while the root cause of global environmental degradation, the unsustainable consumption of the North, remains unchallenged. Second, the North's proposals fail to address the activities of the most powerful actors in international trade, Northern transnational corporations. As described more fully in Part B below, transnational corporations account for a significant percentage of international trade and operate in a variety of polluting and hazardous industries in the South. n141 Third, the North's proposals reinforce North-South power relations via top-down solutions driven by the North's environmental and economic agenda. Rather than developing a collaborative approach to the resolution of global environmental problems that takes into account the needs and priorities of developing countries and of local communities most affected by environmental damage, the North's proposals to reconcile trade and environmental protection seek to impose Northern environmental standards on the South as a one-size-fits-all solution to global environmental degradation. n142

B. Alternative Approaches: North and South

While a full discussion of alternative approaches to the trade/environment debate is beyond the scope of this article, several possibilities emerge from the preceding analysis. These alternative approaches can be grouped into two categories. The first category consists of strategies designed to change the behavior of the North and to scale [*1010] back the North's appropriation of the resources of the South. The second category consists of strategies designed to support local resistance to environmental degradation and to emphasize bottom-up versus top-down analysis and decision-making. The objective of this section is to suggest alternative approaches for future elaboration rather than to undertake a full-blown description and analysis of these approaches.

1. North

As discussed above, the fundamental flaw with the North's proposals to reconcile liberalized trade and environmental protection is that they focus on changing the behavior of the South and do not address the far more significant role of the North in the degradation of the global environment. An approach to the trade/environment debate that spotlights the behavior of the North, rather than simply targeting the South, is therefore an effective way of promoting environmental justice and protecting the global environment. This section provides a brief sketch of two approaches to address the behavior of the North that have thus far received scant attention in the scholarly literature on trade and the environment.

The first approach is to address the problem of Northern over-consumption. It is the over-consumption of the North that poses the greatest threat to the global environment while imposing the environmental costs on the South. Environmental law has traditionally emphasized pollution control and protection of natural resources while ignoring the ultimate cause of pollution and resource degradation: the over-consumption of the planet's resources. There is little international law addressing the problem of over-consumption, n143 and a remarkable dearth of legal scholarship on the issue. n144 The scholarship that does exist tends to focus on domestic strategies to regulate consumption, n145 and does not [*1011] address the North-South implications of these strategies or fully analyze their relationship to the GATT/WTO trade regime. n146 Moreover, efforts to regulate domestic consumption have thus far focused on the quality of consumption (improving product design to reduce environmental impacts during production, use, or disposal) rather than the quantity of consumption (the total amount of products consumed). n147 While it is important to address both issues, gains in the quality of consumption can quickly be eroded by the ever-expanding quantity of products consumed. For example, today's automobiles are far more fuel-efficient (with the exception of sport utility vehicles, popularly known as SUV's) and far less polluting than in the past. n148 However, the increase in both the total number of automobiles and the total miles driven has outpaced the efficiency gains. n149

A second approach is to regulate the activities of transnational corporations. Transnational corporations are the key actors in the global economy and the primary beneficiaries of liberalized trade. n150 Transnational

[*1012] corporations control 80 percent of foreign investment. n151 The vast majority of transnational corporations have parent corporations that are based in the North. n152 However, transnational corporations operate in a wide variety of hazardous and pollution-intensive industries in the South, including mining, petroleum, and agribusiness. n153 Their activities have the potential to produce significant impacts on human health and the environment. n154 Transnational corporations also account for a significant volume of international trade. n155 The trade/environment debate should therefore include an analysis of the role of transnational corporations in environmental degradation and of possible strategies to regulate their conduct. Such strategies might include strengthening environmental enforcement capacity in developing countries, regulating the extra-territorial environmental conduct of corporations headquartered in the North, developing multilateral agreements imposing standards of conduct on transnational corporations, and expanding the rights of foreign victims of **[*1013]** environmental abuse to sue Northern corporations in Northern courts for acts committed in other countries. n156

2. South

The trade/environment debate should also be expanded to take into account the local consequences of global environmental degradation. From Love Canal in the United States to the movement of the Ogoni people of Nigeria against oil drilling by Royal Dutch Shell, the environmental movement has grown out of the local struggles of the people most directly affected by environmental degradation. n157 Indeed, one of the most important lessons of the environmental justice movement in the United States is the importance of paying attention to grassroots struggles in order to understand the precise social and economic forces that produce environmental injustice and to identify the types of policy reforms likely to promote environmental justice. n158 This insight is particularly significant in the era of globalization because it is at the local level that ecosystem limits have already been exceeded. n159 By spatially separating the economic benefits of production from the environmental costs, trade liberalization masks the overshooting of local environmental constraints until they become global crises. n160 Consequently, both social justice and environmental protection imperatives call for close attention to local environmental struggles and for environmental policymaking from the ground up.

Focusing on local struggles reveals the relationship between environmental degradation and other forms of social injustice, and the unique issues that must be addressed to promote environmental justice in each context. While this article has focused on the North-South distribution of **[*1014]** the benefits and costs of trade liberalization, the distributional paradigm is inadequate to address the full panoply of issues raised by environmental injustice. Environmental injustice manifests itself in different ways for different groups and along a variety of axes (racial, ethnic, gender, class), and calls for different solutions at both the global and local level. n161 For indigenous groups in the North and the South, for example, sovereignty issues with respect to natural resource use may be paramount. n162 In Central America, where women have borne the brunt of environmental degradation, the struggle to protect the environment is inextricably intertwined with the struggle to improve the status of women. n163 Consequently, a one-size-fits-all solution to the problem of environmental degradation that does not pay heed to local conditions and to other axes of oppression is likely to exacerbate rather than relieve environmental injustice.

Human rights law can serve as an important vehicle to link the environmental struggle with the struggle for social justice. n164 As the foregoing discussion suggests, environmental degradation in the South is often accompanied by human rights violations. n165 Indeed, environmental degradation is itself a violation of the emerging right to a healthy environment. n166 Civil and political rights (such as freedom of expression and freedom of association) can be deployed to allow groups and individuals to voice their objections to environmentally damaging activities, to **[*1015]** organize resistance movements, and to seek official redress. n167 The right to self-determination recognizes the rights of indigenous people to sovereignty over their natural resources. n168 Economic and social rights (such as the rights to health and livelihood) may require governments to prevent environmental degradation. n169 Emerging rights to a healthy environment, to environmental information, to participate in environmental decision-making, to

environmental impact assessment, to legal redress for environmental violations, and to effective remedies for environmental harm are important tools in the promotion of grassroots participation in environmental decision-making. n170 Human rights law is an important tool for ensuring that the trade and environment debate takes into account the local consequences of trade liberalization, and for ensuring that those most directly affected by environmental injustice have the opportunity to participate in environmental decision-making and to seek redress for environmental injuries.

C. Reconciling Environmental Protection and Social Justice

The critique of trade liberalization presented in this article gives new meaning to the term "environmental imperialism." While this term traditionally refers to the North's imposition of its ecological agenda on the South, it is also an apt description of the North's systematic and ongoing appropriation of the South's natural resources. The North reaps the benefits of liberalized trade while imposing a disproportionate share of the environmental costs on the South. While this may be efficient from the standpoint of some proponents of neoclassical economics, n171 it is ethically problematic and ecologically unsustainable. n172 Liberalized trade accelerates global pollution and resource depletion, masks ecological harm by shifting it to the South, and increases the likelihood that the global economy will exceed the limits of the global ecosystem. n173

The North's consumption-oriented development model is the primary cause of global environmental degradation. This article therefore recommends that Northern environmentalists and policy-makers focus their energies on scaling back the North's appropriation of the world's resources rather than imposing their environmental preferences on the South through unilateral trade restrictions or through demands for harmonization of environmental standards. Regulating the conduct of transnational corporations and adopting strategies to promote sustainable consumption are two possible approaches to achieve this objective. [*1016]

An environmental justice critique of trade liberalization also suggests that it is important to focus on local environmental struggles in order to understand the precise social and economic forces that promote environmental degradation and social injustice and to develop effective policy responses. Top-down solutions driven by the North's environmental and economic agenda exacerbate environmental injustice by reinforcing Northern economic and political dominance, and by failing to take into account the needs and priorities of those most affected by environmental degradation.

Finally, it is important to recognize that trade, human rights, and the environment are inextricably intertwined, and that policy proposals to address global environmental degradation must take into account their complex relationship. Northern initiatives to reconcile trade and environmental protection must be carefully scrutinized to ensure that they promote environmental justice and do not become yet another instrument for transferring resources from the South to the North under the guise of environmental protection.

FOOTNOTE-1:

n1 See Robert A. Jordan, *Battle in Seattle Sent a Message*, Boston Globe, Dec. 7, 1999, at D4; *WTO Protesters Have Cause Worth Hearing*, Albuquerque Journal, Dec. 1, 1999, at A12.

n2 See *WTO Protesters Have Cause Worth Hearing*, supra note 1, at A12.

n3 Much of the media attention focused on the protesters' expressed concern that the WTO would promote the downward harmonization of environmental and labor standards by allowing WTO member nations to challenge each other's environmental, worker safety, and consumer

protection laws as nontariff barriers to trade. See *The Progressive*, Jan 1, 2000, at 8 (describing successful WTO challenges to U.S. pollution standards for reformulated gasoline imports, U.S. bans on shrimp harvested in nets that jeopardize endangered sea turtles, and the European Union's ban on hormone-treated beef); Lenora Todaro, *Attack of the Killer Kapitalists*, *The Village Voice*, Nov. 30, 1999 (describing the shrimp/turtle and reformulated gasoline cases); David Postman, *Caught in a Tangled Net*, *Seattle Times*, Nov. 16, 1999, at A12 (describing the shrimp/turtle dispute); see generally Ralph Nader and Lori Wallach, *GATT, NAFTA, and the Subversion of the Democratic Process*, in *The Case Against the Global Economy: and for a turn toward the local 92-107* (Jerry Mander & Edward Goldsmith, eds., 1996) [hereinafter *Global Economy*] (explaining how any WTO member may challenge U.S. laws under the WTO and describing the WTO dispute resolution mechanism).

n4 See *Senseless in Seattle*, *Boston Globe*, Dec. 2, 1999, at A26 (stating "the United States cannot impose its environmental or labor standards on the world by diktat. The developing countries see their low wages as giving them a competitive edge and a way out of poverty."); Helene Cooper, *Clash in Seattle: Poorer Countries are Demonstrators' Strongest Critics*, *Wall Street Journal*, Dec. 2, 1999, at A2 (describing the opposition of delegates from developing countries to proposals to link trade liberalization to environmental and labor standards); David Postman, *Everyone Has an Agenda Including the Turtles*, *Seattle Times*, Nov. 28, 1999, at E1 (describing the desire of U.S. environmentalists and trade unionists to extend Western-style labor and environmental protections to countries that trade with the United States, and quoting WTO director general Mike Moore's concern that this would not be acceptable to developing countries).

n5 The terms North and South are used in this article as convenient shorthand for wealthy industrialized countries and poor developing countries, respectively. However, these terms are ultimately unsatisfactory because they obscure the substantial common interests between Southern elites and their Northern counterparts, and the significant conflicts between Southern elites and the Southern poor. Indeed, as the process of globalization increases income disparities both within and between nations, "North" and "South" are increasingly socioeconomic rather than geographic categories. See Wolfgang Sachs, *Planet Dialectics: Explorations in Environment and Development 73-74* (1999) [hereinafter *Planet Dialectics*]. Furthermore, the terms North and South suggest homogeneous blocs and thereby obscure the significant differences between the interests and priorities of large industrialized Southern nations, such as Brazil, India and China, and small developing states such as Bangladesh and the Maldives. See Benjamin J. Richardson, *Environmental Law in Postcolonial Societies: Straddling the Local-Global Institutional Spectrum*, 11 *Colo. J. Int'l Envtl. L. & Pol'y* 1, 7-9 (2000); Karin Michelson, *Rhetoric and Rage: Third World Voices in International Legal Discourse*, [16 *Wis. Int'l L.J.* 353, 355-62 \(1998\)](#). Nevertheless, the countries of the South do have some significant common ground. First, nearly all Southern states (with some notable exceptions, such as China, Thailand, and Iran) are former colonies, with Westernized ruling elites who see themselves as heirs to colonial overlords and are often perceived as corrupt and illegitimate. Second, nearly all countries of the South are burdened by debt service to the North, and have export-oriented economies that are highly dependent on the ever-decreasing prices of primary commodities. The need to maximize foreign exchange earnings in order to pay off the debt often leads to overexploitation of natural resources. Third, the pervasive poverty of many Southern nations makes them more vulnerable to the consequences of environmental degradation, such as floods, drought, and loss of agricultural lands through soil erosion. See, e.g., Peter & Susan Calvert, *The South, the North and the Environment 5-15* (1999).

n6 See Bill Bryant, *Bully's Folly: Imposing Our Ways on Others Could Lead to More Environmental Harm, Not Less*, *Seattle Post-Intelligencer*, June 11, 2000, at G1; *Financial Times* (London), December 21, 1999, at 15 (USA Edition) (describing the WTO protesters as ethnocentric nongovernmental organizations displaying arrogance and disdain for poor nations).

n7 The move to incorporate environmental concerns into the WTO framework has long been viewed with suspicion by developing countries. For example, at the conclusion of the Uruguay Round of GATT negotiations, a coalition of developing countries expressed vehement opposition to any measure designed to link trade and environmental protection, fearing that such measures would be used by developed countries to block imports of their products. See William Drozdiak, *Poor Nations Resist Tougher Trade Rules*, *Wash. Post*, Apr. 14, 1994, at A20; see also Jessica Matthews, *The Great Greenless GATT*, *Wash. Post*, Apr. 11, 1994, at A19 (reporting that the economic benefits of the GATT agreement outweigh substantial environmental shortcomings).

n8 A recent article on the practice of shipbreaking illustrates the operation of these myths. See William Langewiesche, *The Shipbreakers*, *Atlantic Monthly*, Aug. 2000. The article describes the dangerous health, safety, and environmental conditions in a town in India where ships sold for scrap are dismantled, and discusses the campaign by Greenpeace to halt the North's sale to the South of ships permeated with toxic waste. Depicting environmentalism as a Northern imposition, the article compares the working conditions of the shipbreakers with the desperate plight of workers elsewhere in India, and questions the relevance of environmentalism to India's poor. Not a single Indian environmentalist is quoted in the article despite the fact that India has one of the largest environmental movements in the world. Instead, the article conveys the message, through interviews with owners and overseers of the Indian shipbreaking industry, that environmental protection is a luxury that a poor country like India cannot afford. The article goes on to depict the North as highly environmentally conscious, and praises the United States government for its pioneering efforts toward environmentally responsible shipbreaking. While the article does point out that the U.S. government fails to regulate the sale and dismantling of the large number of commercial U.S.-flagged vessels (as well as ships owned by companies based in the U.S. regardless of what flag they fly), the fact that shipbreaking represents the North's export of toxic waste to the South is mentioned only in passing. As a result, the reader is left with the impression that the North is a global leader in environmental protection and that Northern environmental activists zealously seek to impose these values on the rest of the world. *Id.* See also Peter & Susan Calvert, *supra* note 5, at 2-3; Katharine Inez Ainger, *In India, Peasants are Burning Crops, Mocking Their Leaders - and Dying*, *The Guardian* (London), Jan. 27, 1999.

n9 Environmental justice has at least four distinct components: social justice, distributive justice, procedural justice, and corrective justice. See Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 *Env'tl. L. Rep.* 10681 (2000) (describing and giving examples of these four distinct but interrelated aspects of environmental justice). The social justice approach views environmental concerns within the larger context of economic, political and racial injustice. *Id.* at 10698. It does not separate environmental degradation from the problem of economic inequality, race and gender subordination, and colonial and post-colonial domination of the South by the North. *Id.* The distributive justice approach focuses on the distribution of environmental degradation, particularly the disproportionate environmental burdens borne by people of color and low-income communities. *Id.* at 10683. The procedural justice approach emphasizes the need for open, informed and inclusive public participation in environmental decision-making. *Id.* at 10688. The corrective justice approach requires that those who cause

environmental degradation be held accountable, be required to remedy the harm, and be prevented from profiting from their misconduct. *Id.* at 10693. All four aspects of environmental justice inform this article. However, distributive justice is emphasized because the article's primary focus is the North/South distribution of the environmental costs of free trade. *Id.* at 10683.

n10 See GATT Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna, Aug. 16, 1991, 30 I.L.M. 1594 (1991) [hereinafter GATT Dispute Settlement Panel Report]; Daniel C. Esty, Greening the GATT: Trade, Environment, and the Future 27-32 (1994). The tuna-dolphin decision drew intense criticism from environmentalists because it seemed to give trade obligations precedence over environmental protection and raised the possibility that trade tribunals with no environmental expertise and no accountability to domestic constituencies might routinely override environmental laws. *Id.* See also Lori Wallach, Hidden Dangers of GATT and NAFTA, in *The Case Against Free Trade*, 23-64 (1993) (discussing historical controversies and the 1991 GATT tuna-dolphin ruling).

n11 The popular and scholarly literature on the trade/environment debate is voluminous. For a representative sampling of the scholarly literature, see *Reconciling Environment and Trade* (Edith Brown Weiss and John H. Jackson eds., 2001); Gregory C. Shaffer, *The World Trade Organization under Challenge: Democracy and Politics of the WTO's Treatment of Trade and Environment Matters*, [25 Harv. Envtl. L. Rev. 1 \(2001\)](#); Jeffrey Dunoff, *The Death of the Trade Regime*, 10 *Eur. J. Int'l L.* 733 (1999); Lakshman Guruswamy, *The Annihilation of Sea Turtles: World Trade Organization Intransigence and U.S. Equivocation*, 30 *Envtl. L. Rep.* 10261 (2000); Steve Charnovitz, *Environment and Health under WTO Dispute Settlement*, 32 *Int'l Law.* 901 (1998); Thomas J. Schoenbaum, *International Trade and Protection of the Environment: The Continuing Search for Reconciliation*, [91 Am. J. Int'l L. 268 \(1997\)](#); Robert E. Hudec, *Differences in National Environmental Standards: The Level-Playing-Field Dimension*, [5 Minn. J. Global Trade 1 \(1996\)](#); Esty, *supra* note 10, Steve Charnovitz, *Free Trade, Fair Trade, Green Trade: Defogging the Debate*, [27 Cornell Int'l L.J. 459 \(1994\)](#); J. Owen Saunders, *NAFTA and the North American Agreement on Environmental Cooperation: A New Model for International Collaboration on Trade and the Environment*, 5 *Colo. J. Int'l Envtl. L. & Poly.* 273 (1994); Richard B. Stewart, *The NAFTA: Trade, Competition, Environmental Protection*, 27 *Int'l L.* 751 (1993); John H. Jackson, *World Trade Rules and Environmental Policies: Congruence or Conflict?*, [49 Wash. & Lee L. Rev. 1227 \(1992\)](#); Peter L. Lallas et al., *Environmental Protection and International Trade: Toward Mutually Supportive Rules and Policies*, 16 *Harv. Envtl. L. Rev.* 271 (1992).

n12 See generally Esty, *supra* note 10, at 181-92 (explaining that the term "environmental imperialism" or "ecoimperialism" refers to the North's imposition of its pollution control and resource conservation strategies on the South notwithstanding the South's conflicting environmental preferences, economic preferences, and priorities).

n13 The term "environmental dumping" refers to the sale of products at a price that fails to take into account the environmental harm occasioned during the production process. Northern environmentalists have argued that failure to internalize environmental costs amounts to an unfair subsidy, and have called for embargoes and "countervailable duties" on such imports. See Hudec, *supra* note 11, at 19-20; See also Jagdish Bhagwati, *Trade and the Environment: The False Conflict*, in *Trade and the Environment: Law, Economics, and Policy* 166-168 (Durwood Zaelke et al. eds., 1993) [hereinafter *Trade and the Environment*].

n14 See Ramachandra Guha, *Environmentalism: A Global History* 98-99 (2000) (describing the widespread belief that poor countries cannot generate environmental movements because environmental protection is a concern of the affluent).

n15 See, e.g., Alice Kaswan, *Environmental Justice: Bridging the Gap Between Environmental Laws and "Justice,"* [47 Am. U. L. Rev. 221, 256-64 \(1997\)](#); Marc R. Poirier, *Environmental Justice/Racism/Equity: Can We Talk?*, [96 W. Va. L. Rev. 1083, 1086 \(1994\)](#); Robert D. Bullard, *Anatomy of Environmental Racism and the Environmental Justice Movement*, in *Confronting Environmental Racism: Voices from the Grassroots* 15, 22 (Robert D. Bullard ed., 1993); Richard J. Lazarus, *Pursuing "Environmental Justice": The Distributional Effects of Environmental Protection*, [87 Nw. U. L. Rev. 787, 788-89 \(1993\)](#); A. Dan Tarlock, *Environmental Protection: The Potential Conflict Between Equity and Efficiency*, 63 U. Colo. L. Rev. 871, 878-79 (1992).

n16 See, e.g., Eileen Gauna, *The Environmental Justice Misfit: Public Participation and the Paradigm Paradox*, [17 Stan. Envtl. L.J. 3, 7-16 \(1998\)](#); Robert D. Bullard, *Race and Environmental Justice in the United States*, 18 *Yale J. Int'l L.* 319, 328 (1993).

n17 See Gauna, *supra* note 16, at 5-10; see also *Toward a New Environmentalism*, 15 *Greenpeace* 2 (July-Aug. 1990) (stating that "national environmental groups are out of touch with certain pivotal realities in the industrialized world issues of racism, social justice, economic fairness and democracy. . . . as long as it has poor communities to dump on, corporate America will have no incentive to reduce waste production or substitute safe materials.").

n18 See Gauna, *supra* note 16, at 5-10; Carolyn Graham & Jennifer B. Grills, *Environmental Justice: A Survey of Federal and State Responses*, [8 Vill. Envtl. L.J. 237, 240 \(1997\)](#); Audrey Wright, *Unequal Protection Under the Environmental Laws: Reviewing the Evidence on Environmental Racism and the Inequities on Environmental Legislation*, 39 *Wayne L. Rev.* 1725, 1729 (1993); Paul Mohai & Bunyon Bryant, *Environmental Injustice: Weighing Race and Class as Factors in the Distribution of Environmental Hazards*, 63 *U. Colo. L. Rev.* 921, 922 (1992).

n19 See Luke Cole & Sheila Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* 54-58, 167-83 (2001) (describing the leading studies that document the disproportionate impact of environmental hazards by race and income and providing an annotated bibliography of these studies); Vicki Been, *Coming to the Nuisance or Going to the Barrios? A Longitudinal Analysis of Environmental Justice Claims*, [24 Ecology L.Q. 1 \(1997\)](#); Paul Mohai & Bunyon Bryant, *Environmental Racism: Reviewing the Evidence*, in *Race and the Incidence of Environmental Hazards: A Time for Discourse* 173-74 (Mohai & Bryant eds., 1992); Marianne Lavelle & Marcia Coyle, *Unequal Protection: The Racial Divide in Environmental Law*, *Nat'l L.J.*, Sept. 21, 1992, at S2.

n20 See Peter & Susan Calvert, *supra* note 5, at 2-3 (1999); Guha, *supra* note 16, at 98-99; Alexander Stille, *In the 'Greened' World It Isn't Easy Being Human*, *N.Y. Times*, July 15, 2000, at B9 (describing World Bank-financed conservation projects in developing countries that displaced millions of local people in order to protect "nature"). As several commentators have pointed out, it is paradoxical that the North is viewed as more environmentally conscious despite the fact it consumes roughly 80 percent of the planet's resources while possessing roughly 20 percent of the planet's population. Tariq Banuri, *The Landscape of Diplomatic Conflicts*, in *Global Ecology: A New Arena of Political Conflict* 49, 50-51 (Wolfgang Sachs, ed. 1993) [hereinafter *Global Ecology*]. This perception has helped engender the belief that the North alone is capable of saving the planet from environmental devastation and has obscured

both the large and growing environmental movement in the South, and the extensive literature documenting the environmental content of traditional and indigenous knowledge systems. *Id.* at 51-52; see also Guha, *supra* note 14, at 112-124 (describing the history of the environmental movement in India and Brazil). Indeed, a 1992 Gallup Institute poll, conducted to coincide with the 1992 United Nations Conference on Environment and Development, found no significant difference between the North and the South with respect to their level of environmental concern. See Banuri, *The Landscape of Diplomatic Conflicts*, *supra* at 51. However, there are significant differences between the environmental agenda of the North and the environmental agenda of the South. Like the environmental justice movement in the United States, Southern environmentalism is inextricably intertwined with the struggle for social and economic justice. See Guha, *supra* note 14, at 105-07. Moreover, this struggle is frequently grounded in an indigenous ideology of social justice, such as Gandhism in India, Buddhism in Thailand, and liberation theology in Latin America. *Id.* at 107. Finally, another striking feature of Southern environmentalism is the significant role of women at both leadership and grassroots levels. *Id.* at 107-08. The misperception of North/South interest in environmental issues, and the different agendas and ideologies of Northern and Southern environmentalism account, in part, for the familiar image of environmentalism as a Northern imposition on a reluctant South.

n21 A prime example of the North's technocratic approach to environmental protection is the 1989 special edition of the *Scientific American*, aptly entitled "Managing Planet Earth." William C. Clark, *Managing Planet Earth*, *Scientific American*, Sept. 1989, at 47-54. The "global environmental management" approach advocated in this special edition and in many diplomatic conferences on the environment transforms environmental protection into the efficient allocation of resources and waste sinks so as to maintain a balance between human extractions or emissions on the one side, and the regenerative capacity of nature on the other. See Wolfgang Sachs, *NeoDevelopment: "Global Ecological Management,"* in *Global Economy*, *supra* note 3, at 243-45, 250-51 (describing the pervasiveness of the global environmental management approach during the 1992 United Nations Conference on Environment and Development in Rio de Janeiro); Eduardo Gudynas, *The Fallacy of Ecomessianism: Observations from Latin America*, in *Global Ecology*, *supra* note 20, at 171-78 (describing the belief of some Northern environmentalists and international institutions that they have the knowledge and the resources to manage the global environment); Eric Laferriere, *Environmentalism and the Global Divide*, 3 *Environmental Politics* 91, 97 (1994); Whose Common Future: *Reclaiming the Commons*, in *The Ecologist* 117-18, 128-40 (1993); Bruce Rich, *Mortgaging the Earth: the World Bank, Environmental Impoverishment, and the Crisis of Development* 273-80 (1994).

n22 The technocratic approach of Northern environmentalists and international institutions has been criticized on several grounds. First, this approach presents human beings' relationship to nature as a strictly scientific and technical problem, and elevates scientific knowledge above the grassroots knowledge and preferences of farmers, indigenous people and local communities. This conception of scientific knowledge overlooks the diversity of views among scientists and produces a discourse that precludes democratic discussion of alternative approaches to environmental protection. Second, this approach suggests that we are all in the "same boat" with respect to protecting the global environment, and fails to acknowledge the North's historic contribution to global environmental degradation and its corresponding obligation to bear its fair share of the costs of repairing the damage. Third, this approach obscures current power relations among and within nations by failing to identify who gains and who loses from environmental degradation, and by failing to explicitly address class, race, culture and gender issues as they pertain to access and control over natural resources. Fourth, this approach typically attributes environmental degradation to Southern poverty (i.e.

insufficient capital, outdated technology, lack of expertise, faltering economic growth) rather than Northern affluence, and thereby promotes the notion that the solution lies in the transfer of financial and technical resources from North to South rather than in a radical reassessment of the development model adopted and promoted by the North. This, in turn, entrenches the Northern development model, and results in projects and programs defined by the North's priorities and by the North's assessment of the South's environmental problems. Finally, by portraying environmental degradation as a global problem requiring global solutions, this approach suggests that only international institutions and national governments can address the problem, thereby reducing incentives for local stewardship of natural resources and disempowering local communities. See Gudynas, *supra* note 21, at 170-77; Vandana Shiva, *The Greening of the Global Reach*, in *Global Ecology*, *supra* note 20, at 154-56; Nicholas Hildyard, *Foxes in Charge of Chickens*, in *Global Ecology*, *supra* note 20, at 29-31; Joyeeta Gupta & Matthijs Hisschemoller, *Issue Linkage as a Global Strategy Toward Sustainable Development: A Comparative Case Study of Climate Change*, in *9 International Environmental Affairs* 289, 295 (1997); Rich, *supra* note 21, at 273-80.

n23 See Guha, *supra* note 14, at 98-124; see generally *Ecological Resistance Movements: The Global Emergence of Radical and Popular Environmentalism* (Bron Raymond Taylor ed., 1995) [hereinafter *Ecological Resistance*].

n24 For example, Northern environmentalists want the South to protect its tropical forests in order to reduce global warming, preserve resources needed for biotechnological and medical research, and preserve nature's majesty. See Laferriere, *supra* note 21, at 97. Several commentators have pointed out that this prescription ignores the root causes of global warming, namely the North's wasteful and excessive energy consumption, and promotes the North's appropriation of the forests of the South as pollution sinks and as raw material for the Northern biotechnology industry. See Guha, *supra* note 14, at 142; Cheng Zheng-Kang, *Equity, Special Considerations, and the Third World*, 1 *Colo. J. Int'l Env'tl. L. & Pol'y* 57, 59 (1990); Whose Common Future: *Reclaiming the Commons*, *supra* note 21, at 170; Klaus M. Meyer-Abich, *Winners and Losers in Climate Change*, in *Global Ecology*, *supra* note 20 at 81-86; Eduardo Gudynas, *Vendiendo la Naturaleza: Impactos Ambientales del Comercio Internacional en America Latina* 35 (1996). Southern environmentalists have also charged that this proposal fails to distinguish between the "survival emissions" of the poor (such as greenhouse gas emissions from the clearing of land for sustenance, agriculture or firewood) and the "luxury emissions" of the rich (such as the greenhouse gas emissions from gas guzzling automobiles in North America and Europe). Guha, *supra* note 14, at 141-43. Finally, this proposal fails to address the relationship between deforestation and international inequality, including export-oriented development strategies fueled by international debt; falling commodity prices for the South's agricultural exports; Northern demands for cheap timber; and the North's bid to secure intellectual property rights for plants, seeds and knowledge originating in the South. See Gupta & Hisschemoller, *supra* note 22, at 295; See also ZhengKang, *supra* at 59 (describing the importance of developing countries' exploitation of their raw materials to repay debts to banks in developed countries). Southern environmentalists have argued that the protection of tropical forests depends on the efforts of local communities, and have emphasized the importance of land reform, local control over natural resources, and local participation in development - including restrictions on the expropriation of natural resources and indigenous knowledge through the patenting of plants, animals and local know-how. See Nicholas Hildyard, *Foxes in Charge of Chickens*, in *Global Ecology*, *supra* note 20, at 23-24; Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge* 96 (1997).

n25 See Vandana Shiva, Afsar H. Jafri, & Gitanjali Bedi, *Ecological Cost of Economic Globalization: the Indian Experience* 5 (1997)(prepared for UN General Assembly Special Session on Rio +5)..

n26 See Human Development Report 1998: Overview, United Nations Development Program, at <http://www.undp.org/hydro/98.htm> [hereinafter United Nations Development Program] (describing how industrialized countries consume most of the world's resources while developing countries bear most of the resulting pollution and degradation of land, forests, rivers and oceans that sustain their livelihoods).

n27 For the text of the memorandum, see *Let Them Eat Pollution*, *The Economist*, Feb. 8, 1992, at 66.

n28 *Id.*

n29 *Id.*

n30 *Id.*

n31 *Id.*

n32 See, e.g., Michael Prowse, *Save Planet Earth From Economists*, *Financial Times* (London), Feb. 10, 1992, at 28; D'vora Ben Shaul, 'Cheaper to Poison the Poor,' *Jerusalem-Post*, March 16, 1992, at 5; Eric Fottorino, *L'ecologie Pour le Developpement*, *Le Monde*, May 19, 1992, Export Toxic Waste, *World Bank Official Says*, *The Toronto Star*, Feb. 8, 1992, at A11; John Vidal *A Gaffe over the GEF*, *The Guardian* (London), Feb. 14, 1992, at 29.

n33 See *Greenpeace Calls for Summers Resignation*, *The World Bank Watch*, Feb. 17, 1992, at 8 (recounting Greenpeace's call for the resignation of Summers as the World Bank's chief economist); Sam Dillon, *Waste Dumping in Third World Urged*, *Miami Herald*, Feb. 8, 1992, at 18A (describing environmentalists' indignant response to the Summers' memorandum); David Lauter, *Environmentalists Flex Muscle Over Key Appointment Transition*, *L.A. Times*, Dec. 10, 1992, at A27 (describing how environmentalists lobbied to block the naming of Lawrence Summers as President Clinton's chief economic advisor); *South Americans Shut Door on Toxic Imports*, *Christian Science Monitor*, March 10, 1992, at 4 (describing the furor the Summers memorandum caused in Latin America, and Argentinean and Brazilian efforts to regulate the hazardous waste trade).

n34 See Rich, *supra* note 21, at 247. Environmental justice advocates in the United States have likewise critiqued utilitarian cost-benefit analysis in environmental decision-making. Under the utilitarian framework, the objective is the economically efficient result that maximizes overall wealth. Since it is more economical to place hazardous activities where land is cheaper and where local residents lack the political clout to successfully oppose the siting, the efficient result will sacrifice the interests of people of color and low-income communities in order to maximize net environmental benefits. See Gauna, *supra* note 16, at 40-41. As Professor Gauna concludes, "environmental justice challenges reside in an ethical dimension beyond utility, and this is a central reason why environmental justice cannot be fully integrated into environmental regulation as it currently exists." *Id.* at 46.

n35 See United Nations Development Program, *supra* note 26.

n36 Hilary French, *Vanishing Borders: Protecting the Planet in the Age of Globalization* 74 (2000).

n37 See Jennifer R. Kitt, *Waste Exports to the Developing World: A Global Response*, 7 *Geo. Int'l Envtl L. Rev.* 485, 488 (1995). In the late 1980's, waste disposal costs in the North were

often as high as \$ 2000 per ton. *Id.* at 488. By contrast, the cost of waste disposal in Africa during the same period was often as low as \$ 40 per ton. *Id.*

n38 See Ibrahim J. Wani, *Poverty, Governance, the Rule of Law, and International Environmentalism: A Critique of the Basel Convention on Hazardous Wastes*, 1 *Kan. J.L. & Pub. Pol'y* 37, 38 (1991). When developing countries have comprehensive environmental regulations, they often lack the administrative infrastructure to ensure proper enforcement. Kitt, *supra* note 37, at 488-89. In addition, the hazardous waste trade is quite lucrative, thus encouraging government corruption and outright criminal activity. Waste exporters can often reduce their disposal costs and evade regulation by simply bribing individual government officials and concealing the toxic nature of the wastes. Wani, *supra* at 38. The consequences of ineffective government enforcement are best illustrated by the infamous Koko Island incident in Nigeria, where a resident allowed over 8000 drums of highly toxic waste from Italy to be dumped in his back yard for a mere \$ 100 per month. See Mutombo Mpanya, *The Dumping of Toxic Waste in African Countries: A Case of Poverty and Racism*, in *Race and the Incidence of Environmental Hazards: A Time for Discourse* 205 (Bunyan Bryant & Paul Mohai eds., 1992). The Nigerian government did not discover the toxicity of the fraudulently labeled waste until the drums began leaking and local residents became ill. See Wani, *supra* at 38. Workers involved in the cleanup effort suffered severe chemical burns, nausea, vomiting of blood, partial paralysis, and coma. *Id.* In addition, the rate of premature birth in Koko increased dramatically. See Mpanya, *supra* at 205.

n39 See Rebecca A. Kirby, *The Basel Convention and the Need for United States Implementation*, [24 Ga. J. Int'l & Comp. L. 281, 285 \(1994\)](#). In Latin America, for example, it is estimated that a third of the population lives below the poverty level. See Quentin Wodon, *Poverty and Policy in Latin America and the Caribbean*, in *World Bank Technical Paper No. 467*, 15 (2000). In addition, many developing countries are pressed to concentrate on economic growth as opposed to enforcing environmental laws due to debt accumulated during the 1980s. See Kitt, *supra* note 37, at 488. "In one case, waste traders offered the West African country of Guinea-Bissau \$ 600 million to import fifteen million tons of industrial waste over five years. This amount represents more than twice the country's national debt and four times its gross national product." *Id.* at 490. Under these circumstances, the lure of the waste trade can be quite powerful. *Id.*

n40 The Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal, which entered into force in 1992, allows parties to export hazardous wastes if the importing country has received prior notification of the shipment and has given its written consent. *Basel Convention*, 28 *I.L.M.* 649 (1989), art. 6, P 1-2. Environmental organizations and many developing countries have criticized the Basel Convention for legitimating rather than prohibiting the hazardous waste trade. Donna Valin, *The Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal: Should the United States Ratify the Accord?* 6 *Ind. Int'l & Comp. L. Rev.* 267, 275-76 (1995); Marguerite M. Cusack, *International Law and the Transboundary Shipment of Hazardous Waste to the Third World: Will the Basel Convention Make a Difference?* 5 *Am. U.J. Int'l L. & Pol'y* 393, 420-22 (1989). Indeed, many developing countries have enacted legislation unilaterally banning hazardous waste imports. Kitt, *supra* note 37, at 507. The members of the Organization of African Unity (OAU) advocated a total ban on the hazardous waste trade during the Basel Convention negotiations, and refused to sign the Basel Convention when it was opened for signature in 1989. Kitt, *supra* note 37, at 498-99. Instead, the OAU members negotiated the Bamako Convention on the Ban of Import into Africa and the Control of Hazardous Wastes Within Africa, which essentially bans the import of hazardous waste generated outside of

Africa. Bamako Convention, 30 I.L.M. 773, 775, 780 (1991); Kenneth D. Hirschi, Possibilities for a Unified International Convention on the Transboundary Shipment of Hazardous Wastes, [10 Geo. Int'l Env'tl L. Rev. 169, 174 \(1997\)](#). In September 1995, the parties to the Basel Convention adopted an amendment that would prohibit the shipment of hazardous waste from developed countries to developing countries. David A. Wirth, Trade Implications of the Basel Convention Amendment Banning North-South Trade in Hazardous Wastes, *Int'l Env'tl. Rep.*, Sept. 4, 1996, at 796. The amendment is not yet in force, and a few key governments, including Australia, Canada, New Zealand, and the United States, continue to object to its provisions. French, *supra* note 36, at 74. Moreover, it is unclear whether the Basel Convention's use of trade restrictions to promote waste minimization and responsible waste management would survive GATT/WTO scrutiny. As explained more fully in Part III of this article, GATT/WTO dispute resolution panels have consistently concluded that trade restrictions designed to promote environmental protection violate GATT obligations. While these determinations have been made in the context of unilateral trade restrictions rather than trade restrictions imposed pursuant to multilateral environmental agreements, these rulings raise significant questions regarding the legality under the GATT/WTO of trade restrictions imposed pursuant to environmental treaties that do not include all GATT contractual parties. See Lakshman D. Guruswamy, Should UNCLOS or GATT/WTO Decide Trade and Environment Disputes?, [7 Minn. J. Global Trade 287, 288, 312-322 \(1998\)](#); Ryan L. Winter, Reconciling the GATT and WTO with Multilateral Environmental Agreements: Can We Have Our Cake and Eat it Too?, 11 *Colo. J. Int'l Env'tl. L. & Pol'y* 223 (2000); Jill Lynn Nissen, Achieving a Balance Between Trade and the Environment: The Need to Amend the WTO/GATT to Include Multilateral Environmental Agreements, 28 *Law and Pol'y in Int'l Bus.* 901 (1997). The United States, the world's largest single producer and exporter of hazardous waste, is not a party to the Basel Convention. Lisa T. Belenky, Cradle to Border: U.S. Hazardous Waste Export Regulations and International Law, [17 Berkeley J. Int'l L. 95, 120 \(1999\)](#).

n41 See French, *supra* note 36, at 74; Experts Urge UNEP to Lead Effort to Combat Transnational Environmental Crimes, 15 *Int'l Enforcement L. Rep.*, Sept 1999.

n42 See French, *supra* note 36, at 74-75.

n43 Kitt, *supra* note 37, at 490-91, 491 n.40.

n44 Diana L. Godwin, The Basel Convention on Transboundary Movements of Hazardous Wastes: An Opportunity for Industrialized Nations to Clean Up Their Acts?, 22 *Denv. J. Int'l L. & Pol'y* 193, 204 n.83 (1993); Tim Jackson, EC Row Looms Over Export of Toxic Waste, *The Independent* (London), Mar. 14, 1992 at 14.

n45 See Kitt, *supra* note 37, at 510. Technological advances have enabled industry to recover valuable materials from scrap metal, including lead, chromium, copper and mercury. In the United States, the export of scrap metal for recycling is estimated to produce annual revenues of over \$ 5 billion. Valin, *supra* note 40, at 281-82. Indeed, the United States' failure to become a party to the Basel Convention has been attributed to opposition by the U.S. Chamber of Commerce in the aftermath of the amendment banning North/South trade in hazardous waste, including recyclable waste. *Id.* at 281-87; Kitt, *supra* note 37, at 513.

n46 See Kitt, *supra* note 37, at 510.

n47 See Valin, *supra* note 40, at 282; Kitt, *supra* note 37, at 492 (describing workers at a lead recycling facility in the Philippines disassembling car batteries with their bare hands, in contrast to the full-body protection required in the United States); *Garbage in the Backyard*, *Business Line*, Sept. 1, 1997, at 18 [hereinafter *Garbage*] (describing environmental and worker

safety risks posed by the mishandling of car batteries and zinc ash exported to India for recycling).

n48 French, *supra* note 36, at 82.

n49 *Id.*

n50 *Id.*

n51 See Kitt, *supra* note 37, at 510; Garbage, *supra* note 47, at 18.

n52 In 1998, for example, nearly 3000 tons of mercury-contaminated crushed concrete waste from Taiwan was dumped in plastic shipping bags with no warning labels outside the Cambodian port city of Sihanoukville. French, *supra* note 36, at 75. Local people scavenging among the deposited materials initially believed that the crushed concrete might be used as fertilizer and that the bags might be used as floor mats or tarpaulins. *Id.* After two people died from mercury poisoning, news of the potential danger sparked riots in which one additional person was killed. *Id.* Four more people died as more than 10,000 panic-stricken citizens fled the city. *Id.* The World Health Organization has been monitoring the consequences of mercury exposure in Sihanoukville, and has concluded that the wastes may pose serious long-term risk to the health of residents, such as nerve disorders and lung and skin ailments. *Id.*, see also WHO Says Waste Dumped in Cambodia May Pose Long-Term Threat to Health, 22 *Int'l Env't. Rep.* 24, Jan. 6, 1999, at 24; Jim Puckett & Ion Hernandez, Avoiding the "Logic" of Waste Trade, *Business World*, Jan. 24, 2000, at 5.

n53 See Kitt, *supra* note 37, at 492.

n54 *Id.* at 491-92.

n55 *Id.* at 491.

n56 See Guha, *supra* note 14, at 111.

n57 See Valin, *supra* note 40, at 270.

n58 See Guha, *supra* note 14, at 111-12.

n59 See Kitt, *supra* note 37, at 492; Gudynas, *supra* note 24, at 29-35. One possible consequence of restricting the North-South hazardous waste trade is the migration of polluting industries to the South, where they benefit from less stringent health and safety regulation and lax environmental enforcement. See Valin, *supra* note 40, at 285. While industries decide to migrate overseas for a variety of reasons, including labor costs, the availability of natural resources, and access to markets, the relocation of industry to the cities of the South has been fraught with serious public health and environmental consequences, including severe air pollution, inadequate sewage treatment and water purification, and massive dumping of toxic wastes. *Id.* While an analysis of the migration of polluting industry to developing countries is beyond the scope of this article, it should be noted that this problem represents the second aspect of "toxic colonialism" denounced by environmentalists and advocated by Lawrence Summers in the infamous World Bank memorandum. See *supra* notes 27-34 and accompanying text.

n60 See Norman Myers, The World's Forests and their Ecosystem Services, in *Nature's Services: Societal Dependence of Natural Ecosystems* 215-25 (Gretchen C. Daily ed., 1997).

n61 See *Id.* at 221-25.

n62 See French, *supra* note 36, at 20.

n63 See Peter & Susan Calvert, *supra* note 5, at 123; see also Janet N. Abramovitz, *State of the World* 1998 22 (1998).

n64 See Laferriere, *supra* note 21, at 97.

n65 See Abramovitz, *supra* note 63, at 24; Paul Stanton Kibel, *Reconstructing the Marketplace: The International Timber Trade and Forest Protection*, 5 *N.Y.U. Env'tl. L.J.* 735, 755 (1996); French, *supra* note 36, at 20.

n66 See French, *supra* note 36, at 20-22. However, these figures reflect only officially reported trade. Much of the international timber trade is illegal, and this illegal trade accounts for a significant amount of the deforestation in Bolivia, Brazil, Cambodia, Cameroon, Ecuador, Georgia, Ghana, Indonesia, Kenya, Laos, Mexico, Paraguay, the Russian Federation, Thailand, and Vietnam. *Id.* at 21-22.

n67 *Id.* at 20-22.

n68 Despite the North's significant contribution to global deforestation, discussions of global forest policy in preparation for the 1992 United Nations Conference on Environment and Development (UNCED) focused on the protection of tropical rainforests. See Stephen Hopgood, *American Foreign Environmental Policy And The Power of the State* 179-80 (1998). Developing countries insisted that any forest protection treaty include both tropical and temperate forests, and opposed any commitments that would impinge on their sovereign rights to use forest resources to meet their development needs. *Id.* Developing countries also sought to link protection of Southern forests to trade and debt issues and to Northern commitments to reduce greenhouse gas emissions. *Id.* When it became apparent that concessions from the North were not forthcoming, developing countries, led by India and Malaysia, blocked the adoption of any forest convention at UNCED. *Id.* Instead, the parties negotiated non-binding forest management principles. See *id.*; see also, Ans Kolk, *Forests In International Environmental Politics: International Organisations, NGOs And The Brazilian Amazon* 159-60 (1996).

n69 See French, *supra* note 36, at 21. The relative contribution of commercial logging to deforestation varies from region to region. In Southeast Asia, logging for the export market is the primary cause of deforestation, and the bulk of the processed forest products are exported to North America. See Heather A. Wolf, *Deforestation in Cambodia and Malaysia: The Case for an International Legal Solution*, 5 *Pac. Rim L. & Pol'y J.* 429, 430-31 (1996). Commercial logging for export is also the most significant cause of deforestation in certain parts of Africa. See Kolk, *supra* note 68, at 69. However, in Central America, cattle ranching for meat exportation is the leading cause of deforestation. *Id.* 69-70. In Brazil, highway construction, land colonization, hydroelectric and dam construction projects, livestock production and mining, along with commercial logging, are major causes of deforestation. *Id.* at 72.

n70 See French, *supra* note 36, at 24-25; Merrill Goozner, *WTO Awash in Protests*, *Chic. Trib.*, Nov. 30, 1999, at N1. See generally, Earthjustice Legal Defense Fund and Northwest Ecosystem Alliance, *Our Forests at Risk: the World Trade Organization's Threat to Forest Protection*, at <http://www.earthjustice.org/news/pr091499.htm> (analyzing and critiquing the proposed agreement). Indeed, the Asia-Pacific Economic Cooperation, a regional trade association, has identified several forest protection policies as potential nontariff trade barriers, including China's logging ban in the upper Yangtze basin, which was imposed in the aftermath of catastrophic flooding in the region. French, *supra* note 36, at 25.

n71 See French, *supra* note 36, at 24-25; Merrill Goozner, *WTO Awash in Protests*, *Chic. Trib.*, Nov. 30, 1999, at N1. See generally, Earthjustice Legal Defense Fund and Northwest

Ecosystem Alliance, *Our Forests at Risk: the World Trade Organization's Threat to Forest Protection*, at <http://www.earthjustice.org/news/pr091499.htm>.

n72 See French, *supra* note 36, at 25.

n73 See French, *supra* note 36, at 22-24.

n74 See French, *supra* note 36, at 22-24; Edward Goldsmith, *Global Trade and the Environment*, in *Global Economy*, *supra* note 3, at 82.

n75 See French, *supra* note 36, at 24.

n76 See *Id.*

n77 Susan George, *The Debt Boomerang: How Third World Debt Harms Us All* 1-4 (1992); Robert Costanza, et al., *An Introduction to Ecological Economics* 235 (1997); Peter & Susan Calvert, *supra* note 5, at 80; Gudynas, *supra* note 24, at 109; Rich, *supra* note 21, at 188; French, *supra* note 36, at 130-31. Export-oriented development strategies have both environmental and social justice consequences. In addition to promoting deforestation, such development strategies produce a shift from the growth of subsistence crops to the production of commodities for the international market, such as coffee, tobacco, livestock and timber. Peter & Susan Calvert, *supra* note 5, at 179-80; Gudynas, *supra* note 24, at 109. The shift to export commodities is typically accompanied by the displacement of small farmers by modern agribusiness, which in turn destroys traditional social structures and results in migration to the cities. George, *supra* at 3; Gudynas, *supra* note 24, at 109-11. This shift also causes Southern countries to rely on food imports to satisfy domestic consumption, and increases vulnerability to famine since staple foodstuffs are no longer produced in sufficient quantities to satisfy local demand. Peter & Susan Calvert, *supra* note 5, at 179-81. The WTO's Agreement on Agriculture exacerbates food insecurity in the South by requiring developing countries to phase out agricultural import restrictions designed to protect local farmers from being displaced by cheap grain imported from the North. French, *supra* note 36, at 64-65; Walden Bello, *The Great Euro-American Agriculture Dumping Machine*, *Bus. World*, Sept. 2, 1999, at 1.

n78 Peter & Susan Calvert, *supra* note 5, at 115; Gudynas, *supra* note 24, at 10. Commodity prices have plummeted over time as debtor countries have flooded the market with raw materials. See George, *supra* note 77, at 2. Because commodity prices have fallen relative to the prices of manufactured goods, the purchasing power of developing countries has declined and their debt load has increased. As a result of mounting debt, the South is currently transferring vast amounts of wealth to the North in debt service (estimated at \$ 40 billion per year since 1985), and is increasing its natural resource exploitation in order to earn the hard currency to make these payments. Increased natural resource exploitation accelerates environmental degradation and gluts the market with raw materials, resulting in a vicious cycle of declining commodity prices, over-exploitation of resources and growing debt. Stuart L. Hart, *Beyond Greening: Strategies for a Sustainable World*, *Harv. Bus. Rev.*, Jan.-Feb. 1997, at 66.

n79 See Kibel, *supra* note 65, at 768-69. For a detailed description and critique of World Bank-financed development projects and their environmental and social justice consequences, see generally Rich, *supra* note 21; see also Nicole Wendt, 50th Anniversary of the World Bank and the IMF Prompts Criticisms, [9 *Transnat'l L. & Contemp. Probs.* 149 \(1999\)](#). For a description of Brazil's widely reviled World Bankfinanced land colonization scheme designed to alleviate pressure for land reform, see Peter & Susan Calvert, *supra* note 5, at 126-29. Deforestation is the product of both internal forces, such as population pressure and national development policies, and external forces, such as export-oriented development strategies designed to repay international debt and satisfy the demand for timber and other commodities in distant export

markets. In the interest of clarity and brevity, this article does not attempt to address the variety of internal forces that promote deforestation in developing countries.

n80 See French, *supra* note 36, at 26. In addition to disturbing ecosystems, mining activities are particularly harmful to local and indigenous communities, destroying forests and fields used for farming and grazing, and contaminating drinking water supplies with toxic chemicals. Mining and oil and gas firms are increasingly active in the South, and industrial countries are the main consumers of minerals. *Id.*

n81 See *id.* at 20; Whose Common Future: Reclaiming the Commons, *supra* note 21, at 40-45, 100-104; George, *supra* note 77, at 4. For a description of the environmental degradation and massive displacement of local and indigenous people caused by World Bank-financed infrastructure projects, see generally, Rich, *supra* note 21. For a description of the displacement of local and indigenous people in India resulting from dam projects, see Madhav Gadgil & Ramachandra Guha, *Ecology And Equity: The Use And Abuse of Nature in Contemporary India* 61-76 (1995). See also, Soren Hvalkof, *Outrage in Rubber and Oil: Extractivism, Indigenous Peoples, and Justice in the Upper Amazon*, in *People, Plants & Justice: The Politics of Nature Conservation* 83-116 (Charles Zerner ed. 2000) (describing the regime of terror imposed on indigenous people in Ecuador, Peru and Bolivia during the last century by extractive industries).

n82 See Kibel, *supra* note 65, at 747-49.

n83 See Peter & Susan Calvert, *supra* note 5, at 127; Anders Wijkman & Lloyd Timberlake, *Natural Disasters: Acts of God or Acts of Man?* 36-37 (1988).

n84 See Simon S.C. Tay, *Southeast Asian Fires: The Challenge for International Environmental Law and Sustainable Development*, [11 Geo. Int'l Envtl. L. Rev. 241, 247-49 \(1999\)](#); Peter & Susan Calvert, *supra* note 5, at 125; French, *supra* note 36 at 55.

n85 See French, *supra* note 36, at 56; Gudynas, *supra* note 24, at 42; Diane Jukofsky, *Devastation of Denuded Hillside*, *L.A. Times*, Nov. 22, 1998, at M2; Dudley Althaus, *Deforestation Contributed to Tragedy by Mitch in Honduras*, *Hous. Chron.*, Dec. 30, 1998, at A1.

n86 See Peter & Susan Calvert, *supra* note 5, at 55; Phil Gunson et al., *Apocalypse Now in Fragile Democracies*, *The Observer* (London), Nov. 8, 1998, at 23. Hurricane Mitch caused an estimated \$ 3.3 billion in damage in Honduras and \$ 1.3 billion in Nicaragua. Michael Riley, *Mexico Flood Toll Likened to Mitch*, *Hous. Chron.*, Oct. 17, 1999, at A30.

n87 See Myers, *supra* note 60, at 221-26.

n88 See Wolfgang Sachs et al., *Greening the North* 72-73 (1998); Paul G. Harris, *Common But Differentiated Responsibility: The Kyoto Protocol and United States Policy*, [7 N.Y.U. Envtl. L.J. 27, 30 \(1999\)](#).

n89 See Harris, *supra* note 88, at 30; Sachs, *supra* note 88, at 72-73; Meyer-Abich, *supra* note 24, at 78-81. The South will be disproportionately affected by global warming for several reasons. First, many developing countries are located in parts of the world that are already subject to extreme climate conditions (such as drought in many parts of Africa or floods and hurricanes in Bangladesh and the Philippines), and global warming will merely exacerbate the problem. Second, global warming will have particularly negative consequences for agriculture, and the countries most affected will be those whose gross national product and export revenues are most closely tied to agricultural production. Third, rising sea levels threaten the very existence of certain low-lying island states, such as Barbados and the Maldives, and threaten

countries whose most fertile regions are in river valleys and coastal areas, such as Egypt, Bangladesh and Senegal. Finally, many developing countries lack the technical and financial resources to protect themselves from the impacts of global warming (by strengthening dikes and levees, for example) or to recover from devastating droughts, floods, and hurricanes. See Sachs, *supra* note 88, at 72-73.

n90 See Sachs, *supra* note 88, at 78; Gudynas, *supra* note 24, at 73.

n91 See Sachs, *supra* note 88, at 78; Shiva, *supra* note 24, at 120-21.

n92 See Naomi Roht-Arriaza, *Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities*, [17 Mich. J. Int'l L. 919, 921-933 \(1996\)](#). Local and indigenous communities in the South have long used plants native to their surroundings in order to satisfy a variety of needs, including food, medicine, shelter, and clothing. [Id. at 921](#). While Western researchers breed plants for maximum commercial yield, indigenous and local farmers, who produce at least in part for their own consumption, strive to maintain crop diversity, including crops suitable for food, forage, medicine and shelter. [Id. at 934](#). Indigenous and traditional peoples often transmit their knowledge of the medicinal as well as other properties and uses of plants, animals, and soils through stories and songs. [Id. at 932](#). Indeed, indigenous and traditional peoples view the stories, songs and scientific knowledge, as well as the landscape and naturally occurring species of plants and animals with which a people have long been associated, as an indivisible manifestation of their cultural heritage and as essential to the preservation of cultural integrity. [Id. at 930](#). For local and indigenous communities, conserving biodiversity means conserving the resources needed for economic and cultural survival. See Shiva, *supra* note 24, at 120-21. This is in sharp contrast to the Northern view of biodiversity as raw material to be altered and manipulated for commercial advantage. *Id.*

n93 See Sachs, *supra* note 88, at 78; Shiva, *supra* note 24, at 120-21; see also Mara Kimmel Hoyt, *Breaking the Trade Barrier: Common Property Solutions to Tropical Deforestation*, [5 Minn. J. Global Trade 195, 197 \(1996\)](#). While a detailed analysis of the causes of biodiversity loss is beyond the scope of this essay, a brief outline of its historic evolution sheds light on its relationship to the problem of deforestation and to the question of social justice. Southern environmentalists have acknowledged that deforestation is a significant contributor to loss of biodiversity, but have accused the North of neglecting the primary cause of biodiversity loss, namely the deliberate replacement of naturally diverse ecosystems by monocultures through development projects spearheaded by the North. See Vandana Shiva, *Monocultures of the Mind* 83-84 (1993); Gudynas, *supra* note 24, at 102. Southern environmentalists have argued that this process began during the colonial era with the displacement of Southern biodiversity by plantation economies (spices, sugar, coffee, bananas, rubber, and cotton) designed to transfer wealth to the imperial powers. See Shiva, *supra* at 78-79; see also Gudynas, *supra* note 24, at 15-26. The process continued in the post-colonial era with the large-scale introduction of high yield monocultures in the South during the so-called Green Revolution. As a result of the Green Revolution, developing countries abandoned the cultivation of thousands of crops in favor of wheat, rice and other crops from a very narrow genetic base, and became dependent on Northern pesticides, fertilizers, and seeds. See Shiva, *supra* at 66-68, 79-80. Most recently, Northern pharmaceutical and agribusiness corporations have begun to realize the potential commercial value of the biodiversity that is being lost in the South, and have been actively collecting germ plasma for future seed development and plants, bacteria, algae, fungi, corals, sponges and other organisms as possible sources for new medicines. See *id.* at 80-82. Northern companies have patented plant and seed varieties and knowledge derived from indigenous and local communities with little or no compensation to those communities. Roht-Arriaza, *supra*

note 92, at 924-26. The WTO's agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) facilitates the North's appropriation of these resources by requiring developing countries to adopt intellectual property laws patterned on those of the North even if these conflict with existing national laws and with the traditions of many agricultural and indigenous communities. See Lakshmi Sarma, *Biopiracy: Twentieth Century Imperialism in the Form of International Agreements*, [13 Temp. Int'l & Comp. L.J. 107, 123-27 \(1999\)](#). The consequence is that developing countries can have their genetic resources appropriated for free, patented by Northern corporations, and sold back at exorbitant prices as medicine or "improved" seeds, resulting in a continuing transfer of wealth from South to North. Shiva, *supra* at 91; Gudynas, *supra* note 24, at 81-82.

n94 See Guha, *supra* note 14, at 119-24. The relationship between social justice and environmental concerns is well illustrated by a petition of December 1990, addressed to the President of Mexico by a community of Nahuatl Indians threatened with displacement by the San Juan dam on the Balsa river:

Mr. President, we publicly and collectively declare our rejection of the San Juan Telecingo Dam because we cannot allow this project to destroy the economy, the historical and cultural heritage, and the natural resources on which we depend . . . This project, by flooding our villages and our lands, would cause great losses and hardships to us in every way: we would lose our houses, churches, town halls, roads, irrigation systems and other collective works that we have undertaken with great sacrifice over many years. We would lose the best farmland that we live from; we would lose the pastures that support our livestock; we would lose our orchards and our fruit trees; we would lose the clay deposits and other raw materials we use for our crafts; we would lose our cemeteries where our dead are buried, our churches, and the caves, springs and other sacred places where we make our offerings; we would lose, among others, Teopantecuanitlan, a unique archaeological site of great importance . . .; we would lose all the natural resources we know and use for our sustenance as taught to us by our ancestors. We would lose so many things that we cannot express them all here because we would never finish this document.

Guha, *supra* note 14, at 105. For an overview of environmental problems confronting the South and how these problems destroy the natural resource base needed to improve long-term living conditions, see C. Russell H. Shearer, *International Environmental Law and Development in Developing Nations: Agenda Setting, Articulation, and Institutional Participation*, [7 Tul. Envtl. L.J. 391, 392-410 \(1994\)](#).

n95 See *supra* notes 71-72 and accompanying text for a discussion of the proposed agreement with respect to forest products.

n96 See *supra* note 40 for a discussion of the Basel and Bamako Conventions on the transboundary movement of hazardous wastes and of the relationship between these treaties and the WTO regime.

n97 See Steve Charnowitz, *World Trade and the Environment: A Review of the New WTO Report*, [12 Geo. Int'l Envtl. L. Rev. 523, 539 \(2000\)](#); Bret Puls, *The Murky Waters of International Environmental Jurisprudence: A Critique of Recent WTO Holdings in the Shrimp/Turtle Controversy*, [8 Minn. J. Global Trade 343, 379 \(1999\)](#); see also David M. Driesen, *What is Free Trade? The Real Issue Lurking Behind the Trade and Environment Debate*, [41 Va. J. Int'l L. 279, 284-85, 330-45 \(2001\)](#) (describing the doctrinal incoherence of the tuna/dolphin, shrimp/turtle and beef/hormone cases and arguing that the ad hoc and uncertain nature of trade law stems from the failure to define the concept of free trade).

n98 See Charnowitz, *supra* note 97, at 539.

n99 Beginning with the National Environmental Policy Act of 1969 (NEPA), [42 U.S.C. §§ 4321-4370d](#) (1989), the United States adopted a far-reaching regulatory program to control air and water pollution, regulate toxic substances and hazardous waste, protect endangered species, and require federal agencies to consider the environmental impacts of their actions. See Robert V. Percival, et al., *Environmental Regulation; Law, Science, and Policy* 105-13 (3d ed. 2000). In general, air and water quality have improved as a result of this regulatory program, and industry has become more efficient and less polluting per unit of output. See James Salzman, *Sustainable Consumption and the Law*, 27 *Env'tl L.* 1243, 1244-45 (1997). But see Percival, *supra* at 1204-26 (providing a more pessimistic account of the failures and successes of U.S. environmental regulation). However, many of these statutes address the symptoms of environmental degradation (pollution) rather than tackling the source: excessive energy and resource consumption. See Salzman, *supra* at 1244-45. The global implications of the failure to regulate consumption are explored in Part II of this article.

n100 At the 1992 United Nations Conference on Environment and Development (Earth Summit), 178 countries endorsed the statement that "the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production Developed countries should take the lead in achieving sustainable consumption patterns" Report of the United Nations Conference on Environment and Development, Vol. I, at 37-38, U.N. Doc. A/Conf.151.26 (1992). Agenda 21, the consensus strategy adopted at the Earth Summit to achieve sustainable development, also acknowledges the primary responsibility of the developed countries to reduce the environmental impacts of consumption. *Id.* at 38, Vol. IV, at 32, P 4.3; [33 P 4.5](#); and 34, P 4.8.

n101 See Gro Harlem Brundtland, Oslo Symposium on Sustainable Consumption (Oslo, Norway, Jan. 19-20, 1994), quoted in Salzman, *supra* note 99, at 1246.

n102 See Sachs, *supra* note 5, at 171; Tom Athanasiou, *Divided Planet: The Ecology of Rich and Poor* 53 (1996).

n103 See Alan Thein Durning, *How Much is Enough?* 38 (1992).

n104 See Gudynas, *supra* note 24, at 204-05; see also French, *supra* note 36, at 9-10; Sachs, *supra* note 5, at 168-69.

n105 See Mathis Wackernagel et al., *National Natural Capital Accounting with the Ecological Footprint Concept*, 29 *Ecological Econ.* 375, 376-77 (1999).

n106 *Id.* at 386.

n107 See Paul R. Ehrlich et al., *The Stork and the Plow* 4 (1995); see also Mercio Gomes et al., *A Vision from the South: How Wealth Degrades the Environment: Sustainability in the Netherlands* 17-45 (1992) (critically assessing the sustainability of the Dutch economy from a Southern perspective).

n108 See Sachs, *supra* note 88, at 70-80; see also Costanza, *supra* note 77, at 173-74.

n109 This argument is based on the assumption that there is a strong correlation between economic growth and environmental protection. For a discussion of this hypothesis, see Gene M. Grossman and Alan B. Krueger, *Environmental Impacts of a North America Free Trade Agreement*, in Peter M. Garber, *The Mexico-U.S. Free Trade Agreement* (1993); see also Daniel C. Esty, *Greening the GATT: Trade, Environment and the Future* 63-64 (1994); Thomas J. Schoenbaum, *Free International Trade and Protection of the Environment: Irreconcilable*

Conflict?, [86 Am. J. Int'l L. 700, 702 \(1992\)](#). But see Kenneth Arrow et al., *Economic Growth, Carrying Capacity, and the Environment*, 268 *Science* 520 (1995) (critiquing the empirical data that posits a correlation between per capita income growth and improvement of the environment); see also WTO SECRETARIAT, *SPECIAL STUDIES 4, TRADE AND ENVIRONMENT* 47-58 (1999) (available at <http://www.wto.org/wto/environ/environment.pdf>) (concluding that the correlation between per capita income growth and environmental protection is not consistent for all pollutants, that overall economic growth does not necessarily reduce pollution, and that reducing pollution requires active governmental intervention).

n110 See Sachs, *supra* note 5, at 168.

n111 See Costanza, *supra* note 77, at 173-74. The ability of the North to continue importing natural capital from the South without surpassing ecological limits requires that the South make the complementary decision to limit its own economic growth in order to continue exporting natural capital. However, the South has embraced the North's growth-oriented model of development. The fact that many countries of the South have not yet reached their local ecological limits allows the continued exportation of natural capital to the North. *Id.* See also Mathis Wackernagel, *Can Trade Promote an Ecologically Secure World? The Global Economy from an Ecological Footprint Perspective*, [5 Buff. Envtl. L.J. 179, 192-93 \(1998\)](#).

n112 See Costanza, *supra* note 77, at 173-74. In other words, the North's development model relies on a physical impossibility: unlimited economic growth. This model perpetuates the illusion that developing countries can achieve the North's standard of living while the North continues to expand economically. Since it is not possible for all countries of the world to be net importers of natural capital, this development model threatens to exceed ecosystem limits. This misguided development strategy benefits the North in the short-term by encouraging the South to deplete its natural resources in order to achieve the North's standard of living. While the North reaps the benefits of an unceasing flow of cheap resources from the South, the liquidation of these resources (for example, forests and fisheries) deeply compromises the ability of the South to meet the needs of its own people. See Wackernagel, *supra* note 111, at 192-93.

n113 See Costanza, *supra* note 77, at 173-74; Sachs, *supra* note 5, at 166-68. Indeed, critics of the Western development model have argued that the post-World War II efforts to "develop" the South were motivated not by philanthropic concern for the world's poor, but by the need to bring the South into the North's trading system in order to appropriate the South's natural resources and cheap labor, and to create an ever-expanding market for the North's goods and services. See Edward Goldsmith, *Development as Colonialism*, in *Global Economy*, *supra* note 3, at 253-66.

n114 See Gudynas, *supra* note 24, at 205; Costanza, *supra* note 77, at 6-13; Herman Daly, *Free Trade: The Perils of Deregulation*, in *Global Economy*, *supra* note 3, at 234-35. The United Nations Development Program (UNDP) has likewise recognized that excessive resource consumption threatens to exceed the "outer limits" of what the planet can support. See United Nations Development Program, *supra* note 26, at 3. Specifically, UNDP identifies the growing deterioration of renewable resources (water, soil, forests, fish, biodiversity), and the growing inability of the planet's waste sinks to absorb everincreasing amounts of waste as the primary threats to the global ecosystem. *Id.*

n115 Wolfgang Sachs, the German environmentalist, developed this metaphor. See Sachs, *supra* note 5, at 168.

n116 See Costanza, *supra* note 77, at 164-67; Sachs, *supra* note 88, at 70.

n117 See Athanasiou, *supra* note 102, at 190.

n118 See Costanza, *supra* note 77, at 86.

n119 Sachs, *supra* note 88, at 70; Daly, *supra* note 114, at 237; Costanza, *supra* note 77, at 165.

n120 See Joan Martinez Alier & Jordi Roca Jusmet, *Economia Ecologica y Politica Ambiental* 420-21 (2000).

n121 See Mathis Wackernagel & William E. Rees, *Our Ecological Footprint: Reducing Human Impact on the Earth* 21, 130-32 (1996); Daly, *supra* note 114, at 237; Costanza, *supra* note 77, at 173-74.

n122 See e.g., Esty, *supra* note 10, at 181-192.

n123 See Steve Charnovitz, *Environmental Trade Sanctions and the GATT: An Analysis of the Pelly Amendment on Foreign Environmental Practices*, [9 Am. U. J. Int'l L. & Pol'y 751, 758 \(1994\)](#). The most well-known statute authorizing environmental trade sanctions is the 1971 Pelly Amendment, which authorizes sanctions against any country that diminishes the effectiveness of any international fishery or wildlife conservation program for endangered or threatened species. [22 U.S.C. § 1978](#) (2000). The United States has imposed trade sanctions under the Pelly Amendment on only one occasion, but has threatened to do so on at least twenty occasions. In general, the mere threat of sanctions has been sufficient to cause other nations to change their behavior. See Charnovitz, *supra* at 772; Joseph Robert Berger, *Unilateral Trade Measures to Conserve the World's Living Resources: An Environmental Breakthrough for the GATT in the WTO Sea Turtle Case*, [24 Colum. J. Envtl L. 355, 394-395 \(1999\)](#).

n124 For purposes of the analysis that follows, a "unilateral trade restriction" is a trade restrictive measure, such as an import quota, an export quota, an embargo, or a tariff, tax or duty that is not taken pursuant to an international treaty obligation.

n125 See Esty, *supra* note 10, at 29-32. See GATT Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna, Aug. 16, 1991, 30 I.L.M. 1594 (1991) [hereinafter, *Tuna/Dolphin I*]. The GATT panel found that the United States violated GATT Article XI, which prohibits both import bans and export bans. *Id.*, at P. 7.1(a). The panel also found that the United States violated GATT Article III's "national treatment" requirement by discriminating against "like products" from another country based on how they are produced. *Id.*, at P. 5.15. In other words, the *Tuna/Dolphin I* case stands for the proposition that the GATT does not permit discrimination between products with similar physical characteristics on the basis of the production process. See Esty, *supra* note 10, at 30. Furthermore, the GATT panel found that the trade measures did not fall within GATT Article XX's environmental exceptions. The panel agreed with Mexico that the GATT Article XX exceptions do not apply to trade restrictions adopted by countries to protect natural resources outside their jurisdiction. *Tuna/Dolphin I*, at PP. 5.27, 5.31, and 5.32. Moreover, even if trade measures to protect extra-jurisdictional resources were permitted, the United States had failed to demonstrate that it had exhausted less trade-restrictive options to achieve this objective, such as the negotiation of a multilateral agreement. *Id.*, at P. 5.28. Even though Mexico did not have the panel's decision adopted by the GATT Council (a necessary step for the decision to have binding effect under the pre-Uruguay Round GATT rules), the panel's decision produced heated debate between environmentalists and advocates of free trade. See Esty, *supra* note 10, at 29-32.

n126 See Esty, *supra* note 10, at 27-32.

n127 See GATT Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna, 33 I.L.M. 839 (1994) [hereinafter, Tuna/Dolphin II]. Because Mexico did not ask the GATT Council to adopt the Tuna/Dolphin I decision, the European Economic Community was obliged to bring its own case in order to challenge the "secondary embargo" on countries that purchased tuna from an embargoed country. See Esty, *supra* note 10, at 31. The Tuna/Dolphin II panel rejected the notion that the GATT Article XX environmental exceptions apply only to natural resources within the jurisdiction of the country adopting the trade restriction. Tuna/Dolphin II, at P 5.20. However, the panel found that the United States' embargo did not fall within the GATT Article XX environmental exceptions because the United States had failed to demonstrate that less trade-restrictive alternatives were unavailable, and because the embargo was primarily designed to force other countries to change conservation policies within their own jurisdictions. *Id.*, at PP 5.26, 5.35, 5.39, and 5.42.

n128 See WTO Report of the Appellate Body: United States-Standards for Reformulated and Conventional Gasoline, 35 I.L.M. 603 (1996) [hereinafter WTO Appellate Report: Reformulated Gasoline]. The case involved regulations promulgated by the U.S. Environmental Protection Agency (EPA) to implement a provision of the Clean Air Act requiring oil refiners to reduce a variety of contaminants in their gasoline from a baseline determined by the composition of the gasoline in 1990. See [42 U.S.C. § 7401](#) (2000); see also [40 C.F.R. § 80.91\(a\)\(i\)](#) (2000). While U.S. refiners were permitted to use their own data from 1990 to establish the baseline, most foreign refiners were required to use the 1990 U.S. industry average due to EPA concerns about the availability and reliability of foreign data. See WTO Panel Report: United States Standards for Reformulated and Conventional Gasoline, 35 I.L.M. 274, 296 (1996) [hereinafter, WTO Panel Report: Reformulated Gasoline]; see also [40 C.F.R. § 80.91\(a\)\(i\)](#). A WTO dispute resolution panel found that the regulation violated GATT Article III's "national treatment" requirement and did not satisfy the GATT Article XX environmental exceptions. WTO Panel Report: Reformulated Gasoline, *supra* at PP. 8.1-8.2. The Appellate Body found that the regulation did meet one of the GATT Article XX's environmental exceptions, but violated the Article XX chapeau (preamble), which prohibits "arbitrary" or "unjustified" discrimination or a "disguised restriction" of free trade. See WTO Appellate Report, Reformulated Gasoline, *supra* at 618-33. The Appellate Body found that the regulation violated the Article XX chapeau because the EPA failed to adequately consider ways of mitigating the administrative and enforcement difficulties associated with allowing individual baselines for foreign refiners, and because the EPA considered the cost of various regulatory options to domestic refiners, but not to foreign refiners. *Id.* at 631-33.

n129 See WTO Report of the Appellate Body: United States - Import Prohibition of Certain Shrimp and Shrimp Products, 38 I.L.M. 118 (1999) [hereinafter, WTO Appellate Report: Shrimp]. A WTO dispute resolution panel issued a ruling in 1998 finding that the embargo violated GATT Article XI's prohibition on quantitative trade restrictions and was not justified by the exceptions in GATT Article XX. See WTO Panel Report: United States - Import Prohibition of Certain Shrimp and Shrimp Products, 37 I.L.M. 832 (1998), P 7.65. The Appellate Body ruled against the United States, but its reasoning departed from earlier WTO/GATT interpretations. The Appellate Body found that the Article XX exceptions did apply to unilateral trade measures designed to influence the conservation policies of other countries, and concluded that the shrimp embargo fell within one of the GATT Article XX exceptions. WTO Appellate Report: Shrimp, *supra* at 121-47. However, the Appellate Body found that the U.S. had applied the embargo in a discriminatory fashion in violation of the Article XX chapeau. *Id.* at 161-84. For an analysis of the evolving GATT/WTO jurisprudence on unilateral trade restrictions, see Guruswamy, *supra* note 11; Carrie Wofford, A Greener Future at the WTO: The Refinement of WTO Jurisprudence on Environmental Exceptions to

GATT, [24 Harv. Envtl. L. Rev. 563, 565 \(2000\)](#); see also Berger, *supra* note 123; Bruce Neuling, The Shrimp-Turtle Case: Implications for Article XX of GATT and the Trade and Environment Debate, [22 Loy. L.A. Int'l & Comp. L. Rev. 1 \(1999\)](#).

n130 See Lori Wallach & Michelle Sforza, The WTO: Five Years of Reasons to Resist Corporate Globalization 13 (1999); David Phillips, Dolphins and the GATT, in *The Case Against Free Trade*, *supra* note 10, at 133-38.

n131 See Esty, *supra* note 10, at 181-88; See also Andrea C. Durbin, Trade and the Environment: The North-South Divide, 37 *Environment* 16, 18-19 (1995). The tuna/dolphin dispute is a prime example of conflicting North-South priorities and perspectives. Developing countries view the United States' interest in preserving the dolphins as irrational since dolphins are not endangered. From the perspective of developing countries, tuna fishing with purse seine nets is an efficient means of producing low-cost protein for the poor and an important source of export earnings. See Esty, *supra* at 188. Southern environmentalists denounced the killing of dolphins as cruel and unnecessary while pointing out that the U.S. systematically neglects to internalize the environmental impacts of other imports, such as Mexican petroleum products. Martinez Alier & Jusmet, *supra* note 120, at 433.

n132 See Esty, *supra* note 10, at 65-66; Hal Kane, Managing Through Prices, Managing Despite Prices, in *Trade and the Environment*, *supra* note 13, at 63-67; Robert Repetto, Complementarities between Trade and Environmental Policies, in *Trade and the Environment*, *supra* note 13, at 242-43; Costanza, *supra* note 77, at 167-68.

n133 See Hudec, *supra* note 11, at 19-20; Bhagwati, *supra* note 13, at 166; Andrew Strauss, From GATTzilla to the Green Giant: Winning the Environmental Battle for the Soul of the World Trade Organization, [19 U. Pa. J. Int'l Econ. L. 769, 770-73 \(1998\)](#) (describing the demand by some U.S. environmentalists for a ban on the importation of goods produced in environmentally damaging ways); Ursula Kettlewell, GATT--Will Liberalized Trade Aid Global Environmental Protection?, 21 *Denv. J. Int'l L. & Pol'y* 55, 74-76 (1992).

n134 See, e.g., Daly, *supra* note 114, at 233; Bhagwati, *supra* note 13, at 166; Charles Arden-Clarke, An Action Agenda for Trade Policy Reform to Support Sustainable Development: A United Nations Conference on Environment and Development Follow-up, in *Trade and the Environment*, *supra* note 13, at 76-81; see generally Howard F. Chang, An Economic Analysis of Trade Measures to Protect the Global Environment, [83 Geo. L.J. 2131 \(1995\)](#) (defending the use of unilateral trade restrictions to protect the global environment); Joshua R. Floum, Exporting Environmentalism: Thoughts on the Use of Market Power to Improve the Environment in the "Free Trade" Era, [35 Santa Clara L. Rev. 1199 \(1995\)](#) (arguing that unilateral trade measures such as embargoes and tariffs have proven effective to influence the environmental behavior of developing nations). For a list of U.S. legislative proposals designed to address "environmental dumping," see Hudec, *supra* note 11, at 3-6.

n135 See Bhagwati, *supra* note 13, at 166-68; Daniel C. Esty & Damien Geradin, Market Access, Competitiveness, and Harmonization: Environmental Protection in Regional Trade Agreements, [21 Harv. Envtl. L. Rev. 265, 282-93 \(1997\)](#).

n136 See Esty, *supra* note 10, at 182; Durbin, *supra* note 131, at 18; Scott Vaughan, Trade and Environment: Some North-South Considerations, [27 Cornell Int'l L.J. 591, 593-94 \(1994\)](#).

n137 See Esty, *supra* note 10, at 182; Durbin, *supra* note 131, at 18. Developing countries and several prominent economists have condemned unilateral trade restrictions as an imposition of the North's ethical preferences on the South, and as a denial of the sovereign right to establish environmental standards in accordance with local conditions and domestic policy preferences.

See Esty, *supra* note 10, at 181-88; Bhagwati, *supra* note 13, at 170-76; T.N. Srinivasan, *Developing Countries and the Multilateral Trading System* 65-69 (1998). Equally problematic are efforts by industrialized countries to promote upward harmonization of environmental standards. As one commentator has pointed out in the context of the North American Free Trade Agreement (NAFTA), upward harmonization of environmental standards perpetuates economic and political inequality among states by depriving developing countries of the competitive advantage offered by lower environmental standards, and by forcing developing countries to divert resources from more pressing social and economic needs in order to "catch up" to the environmental standards of the industrialized world. See Ileana M. Porras, *The Puzzling Relationship Between Trade and the Environment: NAFTA, Competitiveness and the Pursuit of Environmental Welfare Objectives*, 3 *Global L. Stud. J.* 65, 72 (1995); see also Esty, *supra* note 10, at 182. Developing countries have maintained that they cannot be expected to attain international environmental standards unless industrialized countries provide the necessary transfer of capital, know-how, and technology to enable them to do so, and have invoked the commitments made by industrialized countries at the 1992 U.N. Conference on Environment and Development to provide these resources. See Vaughan, *supra* note 136, at 594-97; Durbin, *supra* note 131, at 18-19. See also Gregory Shaffer, *WTO Blue-Green Blues: The Impact of U.S. Domestic Politics on Trade-Labor, Trade-Environment Linkages for the WTO's Future*, [24 *Fordham Int'l L.J.* 608 \(2000\)](#) (arguing that the U.S. shifts the costs of environmental protection to developing countries via unilateral trade restrictions because domestic political constraints preclude the U.S. from providing significant financial support to international environmental institutions to promote sustainable development and from taking measures to curb its own contribution to global environmental degradation).

n138 See Esty, *supra* note 10, at 185; Durbin, *supra* note 131, at 20.

n139 See Esty, *supra* note 10, at 185-86; Peter & Susan Calvert, *supra* note 5, at 187-89.

n140 See Esty, *supra* note 10, at 185; Shiva, *supra* note 22, at 151-53; see also Jennifer Schultz, *The Demise of "Green Protectionism": the WTO Decision on the U.S. Gasoline Rule*, [25 *Denv. J. Int'l L. & Pol'y* 1, 10 \(1996\)](#); Joshua R. Floum, *Defending Dolphins and Sea Turtles: On the Front Lines in an "Us-Them" Dialectic*, [10 *Geo. Int'l Env'tl. L. Rev.* 943, 947-48 \(1998\)](#).

n141 See Robert J. Fowler, *International Environmental Standards for Transnational Corporations*, 25 *Env'tl. L.* 1, 1-4 (1995).

n142 See Esty, *supra* note 10, at 181-88.

n143 The issue of consumption is addressed directly in Chapter 4 of Agenda 21, of the Earth Summit's program of action for achieving sustainable development. See Report of the United Nations Conference on Environment and Development, Annex II, U.N. Doc. A/Conf.151.26, P. 4.3, 4.5, and 4.8. (June 314, 1992). This document is significant because it represents the first time that developed countries have acknowledged their primary responsibility for addressing the environmental consequences of consumption and for promoting sustainable consumption patterns. *Id.*

n144 For a survey of legal scholarship on the issue of consumption, see Salzman, *supra* note 99 at 1293, 1293 n. 18. For an analysis of how U.S. tax policy encourages overconsumption and how tax provisions could be used to reduce consumption and to promote resource conservation, see Mona L. Hymel, *The Population Crisis: The Stork, the Plow and the IRS*, [77 *N.C. L. Rev.* 13, 100-31 \(1998\)](#).

n145 See generally Hymel, *supra* note 144 (proposing tax strategies to reduce consumption); James Salzman, *Beyond the Smokestack: Environmental Protection in the Service Economy*,

[47 UCLA L. Rev. 411, 460-89 \(1999\)](#) (examining the ability of the service sector to reduce environmental impacts throughout the product lifecycle); Salzman, *supra* note 99 (analyzing the limited role of sustainable consumption in environmental law and potential legal initiatives to promote sustainable consumption); Joel S. Hirschhorn, Pollution Prevention Comes of Age, [29 Ga. L. Rev. 325, 346-47 \(1995\)](#); Nicholas A. Robinson, "Colloquium: The Rio Environmental Law Treaties" IUCN's Proposed Covenant on Environment and Development, [13 Pace Envtl. L. Rev. 133 \(1995\)](#) (discussing sustainable consumption as part of Agenda 21); Peter S. Menell, Structuring a Market-Oriented Federal Eco-Information Policy, [54 Md. L. Rev. 1435 \(1995\)](#) (discussing consumption in the context of consumer information); Judith E. Jacobsen, Population, Consumption and Environmental Degradation: Problems and Solutions, 6 Colo. J. Int'l Envtl. L. & Pol'y 255 (1995) (discussing the relationship between consumption and population in environmental degradation).

n146 For example, the North may decide to reduce consumption by imposing an ecological tax on fuels and timber. Reduced consumption in the North will likely cause producer prices to drop, and the producers may increase their resource exploitation so as to make up for the shortfall by selling their products in other markets. Consequently, reduced consumption in the North may accelerate resource depletion in the South rather than promote sustainable use of natural resources. See Esty, *supra* note 10, at 189 (describing such a scenario in the case of timber imports); see also, Sachs, *supra* note 88, at 210-12 (discussing the North-South implications of using ecological taxes to reduce Northern consumption). For a brief analysis of the relationship between consumer product regulation and international trade law, see Salzman, *supra* note 99, at 1281-85.

n147 See Salzman, *supra* note 99, at 1253. While an analysis of the political, economic, cultural and legal obstacles to regulating the quantity of consumption is beyond the scope of this article, it must be acknowledged that these obstacles are formidable. Governments have traditionally promoted consumption in order to increase economic growth and have attempted to limit or reduce consumption only in times of crisis or resource scarcity. *Id.* at 1266. Although fuel consumption is heavily taxed in Europe, efforts to regulate consumption through taxation in the United States, such as President Clinton's proposed BTU tax, have frequently been rejected. *Id.* at 1269; Hymel, *supra* note 144, at 107 (discussing European consumption taxes). The manufacture of needs through advertising is a linchpin of the modern consumer economy, and many citizens of the North view shopping as a primary cultural activity. See Athanasiou, *supra* note 102, at 41-43. As one U.S. diplomat candidly remarked in preparation for the 1992 U.N. Conference on Environment and Development, "the American lifestyle is not up for negotiation." Salzman, *supra* note 99, at 1256.

n148 See Sachs, Neo-Development, *supra* note 21, at 249.

n149 *Id.*

n150 See Robert J. Fowler, International Environmental Standards for Transnational Corporations, 25 Envtl. L. 1, 2-3 (1995). Transnational corporations in developing countries are perceived to operate in a legal and moral vacuum between ineffective domestic legislation and unenforceable or nonexistent international regulation. *Id.* at 1-4. Economist Herman Daly argues that globalization benefits transnational corporations by separating the places that benefit from economic activity from those that bear the costs. Herman E. Daly, Problems with Free Trade: Neoclassical and Steady-State Perspectives, in Trade and the Environment, *supra* note 13, at 151. "The larger the market, the longer corporations will be able to avoid the logic of Henry Ford - that he had to pay his workers enough for them to buy his cars. In a big trading area, you can go for a long time making cars with cheap labor in one place and selling them to

the remaining high-wage earners somewhere else. The larger the free trade bloc, the longer you can get away with depleting resources and absorptive capacities in one area in order to enjoy the benefits produced from these costs in a well-preserved environment somewhere else. . . . That is why transnational corporations like free trade and why workers and environmentalists do not." *Id.* In other words, transnational corporations have little or no accountability to the communities or nation-states in which they operate, to their workers, or to the environment.

n151 See Scott Holwick, *Transnational Corporate Behavior and Its Disparate and Unjust Effects on the Indigenous Cultures and the Environment of Developing Countries: Jota v. Texaco, a Case Study*, 11 *Colo. J. Int'l Envtl L. & Pol'y* 183, 192 (2000).

n152 See Fowler, *supra* note 150, at 6. In fact, transnational corporations headquartered in the United States, Germany, France, Japan and the United Kingdom account for more than two thirds of global direct foreign investment. *Id.*

n153 See Fowler, *supra* note 150, at 8.

n154 *Id.* The industrial accidents at Seveso, Italy; Bhopal, India; and Basel, Switzerland alerted the world to the grave consequences of inadequately managed chemical manufacturing plants. *Id.* at 9. The environmental and human rights implications of petroleum development in the Ecuadoran Amazon have also attracted wide attention. See generally Holwick, *supra* note 151; Joe Kane, *Savages* (1995); Raissa S. Lerner & Tina M. Meldrum, *Debt, Oil, and Indigenous Peoples: The Effects of United States Development Policies in Ecuador's Amazon Basin*, 5 *Harv. Hum. Rts. J.* 174 (1992); Judith Kimerling, *Disregarding Environmental Law: Petroleum Development in Protected Natural Areas and Indigenous Homelands in the Ecuadoran Amazon*, 14 *Hastings Int'l & Comp. L. Rev.* 849 (1991).

n155 The global trading system is no longer simply a group of nations buying and selling things to each other. Rather, international trade is increasingly dominated by transnational corporations importing and exporting among their own foreignbased subsidiaries. It is estimated that more than 40 percent of U.S. exports and nearly 50 percent of U.S. imports represent goods traded through intra-firm channels rather than in the open market. However, all of this intra-firm trade is included in national trade statistics even though international trade is increasingly driven by the priorities of transnational corporations, and less by traditional notions of comparative advantage among nations. See William Greider, *One World, Ready or Not: The Manic Logic of Global Capitalism* 22-23 (1997).

n156 For an analysis of options for imposing environmental regulation on the activities of transnational corporations, see Fowler, *supra* note 150, at 18-29 (discussing regulation under international agreements, regulation by the host country and the home country, and self-regulation); see also Alan Neff, *Not in Their Backyards, Either: A Proposal for a Foreign Environmental Practices Act*, 17 *Ecology L.Q.* 477 (1990) (proposing a Foreign Environmental Practices Act, modeled on the Foreign Corrupt Practices Act, to govern the extraterritorial environmental conduct of U.S. corporations); Robin Broad & John Cavanagh, *The Corporate Accountability Movement: Lessons and Opportunities*, [23 *Fletcher F. World Aff.* 151 \(1999\)](#) (analyzing various campaigns to promote corporate accountability). For a discussion of litigation by victims of environmental harm against U.S. corporations under the Alien Tort Claims Act, see generally Richard L. Herz, *Litigating Environmental Abuses under the Alien Tort Claims Act*, [40 *Va. J. Int'l. L.* 545 \(2000\)](#); Armin Rosencranz & Richard Campbell, *Foreign Environmental and Human Rights Suits Against U.S. Corporations in U.S. Courts*, [18 *Stan. Envtl. L.J.* 145 \(1999\)](#); Hari M. Osofsky, *Environmental Human Rights under the Alien Tort Statute: Redress for Indigenous Victims of Multinational Corporations*, [20 *Suffolk Transnat'l L. Rev.* 335 \(1997\)](#).

n157 See Shiva, *supra* note 22, at 150; Guha, *supra* note 14, at 99-108.

n158 See Sheila Foster, *Justice From the Ground Up: Distributive Inequities, Grassroots Resistance, and the Transformative Politics of the Environmental Justice Movement*, [86 Calif. L. Rev. 775, 790-96 \(1998\)](#).

n159 See *supra* notes 116-121 and accompanying text.

n160 *Id.*; see also Daly, *supra* note 150, at 155-56.

n161 See Foster, *supra* note 158, at 802-08.

n162 See Al Gedicks, *International Native Resistance to the New Resource Wars*, in *Ecological Resistance*, *supra* note 23, at 89-108.

n163 Lois Ann Lorentzen, *Bread and Soil of our Dreams: Women, the Environment, and Sustainable Development - Case Studies from Central America*, in *Ecological Resistance*, *supra* note 23, at 56-69. Women are at the forefront of the environmental movement in Central America because environmental degradation directly affects their already undercompensated and under-appreciated roles as food producers, food providers, and caretakers for the young, the elderly, and the sick. Soil erosion results in a decline in food production and in malnourished children. Deforestation increases the distance that must be traveled to obtain firewood. Contaminated water supplies produce illness; and overuse of pesticides and chemical fertilizers result in an increase in birth defects. It is, therefore, not surprising that the Central American environmental movement has drawn an explicit connection between the degradation of nature and the subordination of women. *Id.* at 59-62.

n164 See generally, *Human Rights Approaches to Environmental Protection* (Alan E. Boyle & Michael R. Anderson eds., 1996).

n165 See Michelle Leighton Schwartz, *International Legal Protection for Victims of Environmental Abuse*, 18 *Yale J. Int'l L.* 355, 359-75 (1993) (describing how environmental degradation can violate the right to life, the rights of indigenous peoples, the right to health, livelihood, culture, privacy, and property, the right to freedom of expression and to political participation, and the emerging right to environmental information and to a healthy environment); see generally Human Rights Watch and Natural Resources Defense Council, *Defending the Earth: Abuses of Human Rights and the Environment* (1992).

n166 See Michael Anderson, *Human Rights Approaches to Environmental Protection: An Overview*, in *Human Rights Approaches to Environmental Protection*, *supra* note 164, at 8-10.

n167 *Id.* at 4-5.

n168 *Id.* at 6-7.

n169 *Id.* at 5.

n170 *Id.* at 8-10.

n171 See *supra* notes 27-34 and accompanying text.

n172 See *supra* notes 108-121 and accompanying text.

n173 *Id.*