

126. Allison Cassady, *Big Money to Big Oil: How ExxonMobil and the Oil Industry Benefit from the 2005 Energy Bill*, a report by the US PIRG Education Fund (August 2005), 1–17.

127. See Shannon Collier, Navin Nayak, Erich Pica, and Aileen Roder, *Green Scissors 2003: Cutting Wasteful & Environmentally Harmful Spending*, a report by Friends of the Earth, Taxpayers for Common Sense, and US Public Interest Research Group (2003), 19–21.

128. David S. Broder, “The Game in Washington,” *Boston Globe* (January 3, 2002), A11.

129. U.S. Government Accountability Office, “Worker Protection: Federal Contractors and Violations of Labor Law,” a GAO report to the Honorable Paul Simon, U.S. Senate (October 1995).

130. Corburn, “Emissions Trading and Environmental Justice.”

131. U.S. Environmental Protection Agency, Office of Regulatory Enforcement, Office of Enforcement and Compliance Assurance, “EPA Supplemental Environmental Project Policy” (2004).

132. Suzie Canales, *Supplemental Environmental Projects: The Most Affected Communities Are Not Receiving Satisfactory Benefits*, a report by the Refinery Reform Campaign and Public Citizen (June 2006), 2–23.

133. See Environmental Integrity Project, “Wrong Track? Some Performance Track Facilities Report Increased Levels of Toxic Pollution” (February 8, 2006), available at <http://www.environmentalintegrity.org/pub360.cfm> (accessed June 5, 2007).

Chapter Four

The Unfair Trade-Off: Globalization and the Export of Ecological Hazards

The benefits of international trade come from allowing countries to exploit their comparative advantage. . . . And much of the third world’s comparative advantage lies, in one way or another, in the fact of its poverty; in particular, cheap labor and a greater tolerance of pollution.¹

—Pam Woodall, economics editor, *The Economist*

THE GLOBAL ECOLOGICAL CRISIS

The age of globalization has witnessed the triumph of a distinctly hard-nosed brand of American capitalism in the world economy. Facilitated by the neo-liberal agenda for global free trade (market liberalization), an end to most governmental regulatory “interference” with business practices (deregulation), the takeover of former public services and state agencies by domestic and/or international capital (privatization), and reductions in social welfare and environmental protection measures in both the North and the global South (fiscal conservatism), the growing pace of economic integration across the globe is unprecedented. Characterized by the increased mobility of capital and goods and services across national borders, globalization represents the emergence of a truly integrated international system of capitalist *production* and *distribution* under the hegemony of the United States. It is a process whereby all previous precapitalist residues of social life and domestic business formerly articulated within broader social formations are disintegrating into a transnational social structure that operates both “over” and “under” the nation-state system. As a result, world labor forces, natural resources and energy, technology and machinery, biosystems, and other “productive inputs”

are becoming more integrated into the circuits of global capital (economically) and the structures of transnational corporations and banks (organizationally), especially those institutions controlled by American interests. In this respect, the term "globalization" is often used as a cover word by U.S. policymakers to describe the imposition of neoliberal capitalist development models all around the world.

The capitalist world system, of course, is not new. Nor is the process of global economic integration, especially in terms of the internationalization of the commodity and money circuits of capital. However, there *is* something profoundly different about the current phase of globalization. Put simply, multinational corporations possess a newly developed capacity to locate capitalist production facilities in virtually every corner of the planet. The creation of modern global communications and transportation systems and the development of advanced infrastructure in the newly industrializing countries are granting industrial capital the geographic mobility to take advantage of more favorable business climates abroad. This is especially true in the countries of East Asia and the global South with large supplies of cheap and highly disciplined wage laborers, abundant natural resources and energy supplies, tax advantages, and weaker environmental regulations. The commodities and surplus profits produced by the factories are then exported back into the United States and other advanced capitalist countries. The pollution, however, remains behind. Even worse, the toxic waste, industrial pollution, discarded consumer goods, and other forms of "antiwealth" produced in the United States are becoming increasingly mobile and end up in the "pollution havens" of the Third World. Prior to the invention of environmental protection laws in the United States and elsewhere, it was not necessary (let alone cost effective) to export environmental problems to other countries. This is no longer the case. In short, it is the internationalization of the productive and waste circuits of capital that distinguishes the current period of corporate-led globalization from previous historical epochs.

Corporate-led globalization has also initiated a profound restructuring of the U.S. economy. Spurred by innovations in global communications, information, and transportation systems—as well as major improvements in infrastructure and the educational, skill, and productivity levels of labor power in the developing world—overseas industry and agriculture (particularly in the newly industrializing countries) have rapidly expanded in recent years to capture a growing share of the U.S. and world markets. While globalization has facilitated growth in some "new economy" sectors of the U.S. market, particularly industries exporting high technology and other capital goods and services of all kinds to both developed and newly industrializing countries overseas, many industries that have traditionally served as the backbone of

What is different & new: Unprecedented S.R. Capital of 20th & 21st C.

the "old economy," as well as the trade union movement, have seen their competitive position for mass-produced consumer goods and finished raw materials (such as steel) steadily eroded.

In contrast, economic growth in the global South has been led by exports of energy, raw materials, and consumer goods to the North. This turn toward export-oriented industrialization is being driven by foreign direct investment (FDI) and foreign lending provided by the United States and other advanced capitalist countries and is intended to facilitate the appropriation and development of domestic business facilities, energy supplies, and natural resources by northern investors. Thus, global free trade is creating a new international division of labor in which the South favors exports of cheap raw materials, energy, technology components, and consumer goods to the United States on the one hand and the United States favors capital goods and services for export within the North and to the South on the other. In short, while the South produces wealth in the commodity form, the United States produces wealth in the "capital form."

Under processes of unequal ecological exchange, the massive quantities of physical wealth now entering the United States (in the form of energy, raw materials, foodstuffs, and durable consumer goods) are greatly undervalued in the world economy. With international trade largely under the control of northern-based transnational corporations, the concrete and potential natural wealth found in U.S. imports of energy and raw materials is in much greater proportion than the monetary (abstract) wealth that is exported back to the global South. Through exploitative world trade relations, the United States is appropriating the biocapacity of the global South. This process also includes the damage being done to the economies of the global South resulting from U.S. exports of pollution, hazardous waste, greenhouse gases, and other ecological hazards (externalities). It is estimated that the *ecological debt* owed by the United States and other advanced capitalist to the developing countries as a result of carbon emissions alone amounts to \$13 trillion per year.² Moreover, America's *ecological debt* arising from excessive use of the South's environmental space is accelerating, even as the *economic debt* owed by many Third World countries to U.S. banks continues to grow.³ The South's economic debt and the North's ecological debt are symptomatic of the "unfair" trade-off brought about by corporate-led globalization.

The plundering of the South's resources and the export of pollution and other environmental hazards by the United States are together creating an unparalleled ecological crisis of global dimensions. Almost 40 percent of the 58 million deaths occurring worldwide each year are now caused by pollution.⁴ In addition, the landmark Millennium Report compiled by 1,300 researchers from ninety-five countries reveals that approximately 60 percent of the

ecosystem services that support life on earth are being used unsustainably and/or already significantly degraded.⁵ According to the report *Vital Signs 2006–2007* by the Worldwatch Institute, for instance, the world's forests have shrunk by 90 million acres since 2000. An estimated 20 percent of the earth's coral reefs are "effectively destroyed," and another 50 percent are threatened. Meanwhile, the global use of chemical poisons is skyrocketing. World exports of pesticides reached a record \$15.9 billion in 2004 and have risen to almost two pounds for every acre of land on the planet (compared to less than half a pound per acre in 1961). Pesticides and industrial pollution in the global environment are contributing to a worldwide cancer epidemic that kills 7.6 million people annually. The World Health Organization estimated that cancer deaths will continue to rise and will eventually reach 9 million deaths in 2015. Over 70 percent of these deaths occur in the less developed countries.⁶ Last but certainly not least, global warming is threatening to revamp the ecological face of the entire planet and displace tens of millions of people from their homes and means of livelihood, especially in the global South.⁷

In this chapter, I outline the manner in which trade policy is creating an unparalleled ecological crisis in the less developed countries through the export of environmental hazards (or externalities). The evidence will show that the United States has the largest *ecological footprint* (or impact) of any nation on earth. This impact occurs through U.S. FDI in environmental damaging industries and the relocation of U.S.-based dirty facilities to the global South as well as from the dumping of toxic waste and dangerous consumer goods in developing countries. In addition to the export of hazard, I examine the manner in which neoliberal economic policy is facilitating the confiscation of greater quantities of biomass from the South at prices highly advantageous to American industry. In short, this chapter will paint a disturbing picture of the role played by corporate-led globalization and unfair trade policies in provoking severe ecological problems and environmental injustices throughout the world.

GLOBALIZATION, UNFAIR TRADE, AND THE CORPORATE ASSAULT ON MOTHER EARTH

The Expansion of Foreign Trade

In the age of globalization, the expansion of foreign trade has become the engine of world capitalist growth and development. Since 1950, the rate of growth of world exports has exceeded the growth rate of world gross domestic product (GDP) and continues to accelerate.⁸ The dramatic increases in the

size, numbers, and sheer power of multinational corporations reflects this new global political-economic architecture. In 1992, there were 37,000 transnational corporations in the world, with over 200,000 foreign affiliates.⁹ Today there are more than 64,000, with over 870,000 foreign affiliates. Transnationals now control more than 70 percent of world trade and have annual sales over \$18 trillion. More than \$6 trillion of world trade is intrafirm, occurring between units of the same corporation, many of them U.S.-based companies.¹⁰ American multinational corporations also employ almost 10 million workers overseas.¹¹ In short, transnational corporations dominate the world economy.

Strong growth in the U.S. GDP and international trade during this time has transformed the American economy into the "world's cash register," from a net exporter into a net importer of commodities. As a result, the United States is serving as the supermarket for rest of the world—the primary source of global effective demand in the form of private consumption, investment, and government expenditures. Much of this spending, however, is being fueled via massive deficit spending. In 2006, the overall U.S. trade deficit in goods and services was \$765.3 billion, a fifth consecutive record deficit.¹² An even more complete view on the state of the U.S. economy can be achieved when analyzing the current account deficit, which includes the difference between U.S. exports and imports of goods and services, income (salaries and investments), and net transfers (workers' remittances, donations, aids and grants, and so on). At \$875 billion in 2006, the global current account deficit of the United States is the largest in history and now accounts for 7 percent of the country's GDP. Moreover, the deficit has been rising by an average of \$100 billion a year since 2002. To finance the current account imbalance, the United States must attract capital inflows from the rest of the world of almost \$4 billion a day (or about \$1 trillion a year).¹³ Despite the potential economic threats posed by the current account deficit, the capacity of U.S. capitalism to capture and employ so much of the world's material output and financial savings (much of which is reinvested abroad) reflects the strength of American empire, not its weakness.

Globalization and the Domestic Assault against Environmentalism

The advent of global free trade is subverting nationalist economic development models, compelling nations in both the North and the South to focus primarily on expanding foreign investments and export markets (over domestic markets) as a means of achieving growth. In a dialectical fashion, the decline of nation-state-oriented models of Keynesian economics (based on the progressive redistribution of wealth) has led the world political order to increasingly adopt neoliberal economic programs and policies as an alternative model of development (based on the regressive redistribution of wealth). In the United States, fearing

that increased costs to business will undermine profitability in an increasingly competitive world market, the American business establishment has become unwilling to abide by the traditional accords brokered by the liberal wing of the Democratic Party on its behalf with the labor, environmental, civil rights, women's, environmental justice, and other progressive social movements. Instead, the rise of neoliberals committed to less governmental "control" of industry is now hegemonic. As a result, the defining characteristics of liberal capitalism historically enlisting the mass loyalty of ordinary working people—high wages, good benefits, job security and advancement, affirmative action, universal entitlements, and welfare protections—are being eroded by corporate-led globalization. This entails launching a *domestic political assault* on the environmental justice (EJ) movement, trade unions, environmentalists, and other progressive social movements.

The rise of neoliberalism in the United States and its subsequent near universalization entails the restructuring and opening of the world's nations, including ex-Communist ones, to economic competition, the free movement of capital, and the deepening of capitalist social relations. Both financial markets and international financial institutions play critical roles in facilitating this and in reinforcing American imperial power. In fact, the triumph of the "Third Way" neoliberalism model of globalization not only has undermined traditional New Deal liberalism and welfare state capitalism in the United States but has also dealt a death blow to bureaucratic state socialism in the East, import-substitution industrialization and other nationalist-based models of dependent development in the South, and Keynesian social democratic regimes in the West (as seen in the recent electoral defeats of the left in France and elsewhere in Europe as well as the hegemony of a more conservative Labor Party in Britain). Furthermore, former rivals in the form of Japanese and German corporatism have become sufficiently subordinated by American-style neoliberalism. Moreover, the growth of the integrated production processes spawned by U.S.-based multinational corporations, along with the increased dependency of most nations on American FDI and international "free trade," has largely restrained protectionist impulses. It has also reinforced Asian and European reliance on U.S. military power to maintain a favorable business climate for foreign capital throughout much of the world, including the Middle East. In this respect, the American imperial form of rule functions to reproduce the conditions for global capital accumulation and political-economic order (but ecological disorder) among nations as necessary for their own reproduction.

Ecological Armageddon and the Unfair Trade-Off

Operating in concert with multilateral institutions such as the World Bank and the International Monetary Fund, the World Trade Organization (WTO) has

played a key role in organizing this new architecture of global economic governance. With the help of the General Agreement on Tariffs and Trade, the North American Free Trade Agreement (NAFTA), and other "free" trade agreements, multinational corporations and financial institutions are being granted the power to supersede democratic elements of the nation-state that guard the larger public interest, including the environment. As stated by political economist James O'Connor, "The function of neo-liberalism in general, and trade liberalization in particular, is to enlarge the WTO's powers to strengthen global capital vis-à-vis local and national capital world-wide. At the limit, this means to free global financial markets (organized by finance capital), global production (organized by transnational corporations), and the global market for goods and services from any and all local and national rules and regulations."¹⁴

Free-trade agreements are supposed to apply the same set of rules to all signatory nations, requiring conformity to a strict set of capital and commercial provisions and permit individual investors to directly sue nation-states for violations of the terms of the treaties. These lawsuits may be brought in special dispute settlement tribunals outside of national court systems. Ordinary citizens and popular social movements are denied any meaningful role in these deliberations. As a result, the structure of power in the WTO is fundamentally undemocratic. Instead, decision making around the structure of the world economy takes place in nontransparent backroom sessions rather than in formalized public plenaries. Majority-rule voting has been dispensed with in favor of a process called consensus, which is really a process in which the eight wealthiest capitalist countries in the world—Canada, Great Britain, France, Germany, Italy, Japan, Russia, and the United States—impose their will on the majority of the member countries. This arrangement allows U.S. investors and transnational corporations to consolidate their control over political life (the United States does not follow the same rules it promotes abroad in these free-trade agreements since the federal government heavily subsidizes American farmers and protects key sectors of the economy from foreign competition). Trade liberalization policies implemented under NAFTA and other free-trade agreements and enforced by the WTO profoundly impact the global environment. These agreements take specific aim at certain types of environmentally inspired trade restrictions as in fact being "illegal" restraints or barriers to trade. If transnational corporations or other countries perceive that another country's labor, consumer product safety, and environmental laws constitute a "nontariff barrier to trade," then these restrictions can be appealed to the WTO. As noted by environmental activists Kenny Bruno and Josh Karliner, "Since it was created in 1995, the WTO has ruled every environmental policy it has reviewed an illegal trade barrier that must be

eliminated or changed.”¹⁵ Thus, in a “race to the bottom,” free-trade agreements are resulting in a *downward harmonization* of environmental, labor, consumer, and worker health and safety regulations across the world, including the United States.

Nevertheless, some serious cracks are beginning to develop in this new global economic architecture. Growing frustration and anger at the United States for its refusal to budge from protectionist double standards is leading local ruling classes to resort to nationalist strategies of protection and state-backed competition for global markets and natural resources. Furthermore, the dissonance between the promises of globalization and free trade and the actual results of neoliberal policies—growing poverty, inequality, and ecological degradation—is creating a deep crisis of legitimacy for the International Monetary Fund, the World Bank, and the WTO, particularly in the global South. As stated by Walden Bello, “Global warming, peak oil, and other environmental events are making it clear to people that the rates and patterns of growth that come with globalization are a surefire prescription for ecological Armageddon.”¹⁶ Aware of these dangers, the global South is beginning to retreat from globalization. Bolivian President Evo Morales and Venezuelan President Hugo Chavez are forging new models of regional economic cooperation (over free trade) with little or no participation from U.S. multinational corporations. The Washington consensus is beginning to break down. Nevertheless, the U.S. government continues to impose a new form of neoconservative neoliberalism on other countries, where debt relief and grant aid (rather than loans provided by the World Bank and a nearly defunct International Monetary Fund) are now offered in exchange for the continued liberalization of markets and the privatization of domestic industries, land, and natural resources. The economic and ecological pillage of the less developed countries in the orbit of American capitalism continues to move forward.

DUMPING ON THE THIRD WORLD: THE EXPORT OF ECOLOGICAL HAZARDS AND ENVIRONMENTAL INJUSTICE

Similar to the “internal” strategy of reducing production costs by displacing ecological and public health hazards onto poor people of color and the working class *inside* the United States, corporations are also reducing costs by adopting the “external” strategy of exporting ecological hazards *outside* America’s national boundaries. The worsening ecological crisis in the global South is directly related to an international system of economic and environmental stratification in which the United States and other advanced capitalist

GF
globally

nations are able to shift or impose the environmental burden onto weaker states. In fact, one of the primary aims of U.S. economic planners is to cut costs by displacing environmental problems (externalities) onto poorer southern nations—countries with little power in global environmental policy decision-making institutions. Lawrence Summers, former undersecretary of the treasury of international affairs and key economic policymaker in the Clinton administration (and former president of Harvard University), is infamous for writing a 1991 memo as a chief economist at the World Bank that argued,

Just between you and me, shouldn't the World Bank be encouraging *more* migration of the dirty industries to the LDCs [less developed countries]? . . . I think the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that. . . . I've always thought that under-populated countries in Africa are vastly *under-polluted*.¹⁷

The Summers memo reflects the “thinking” of many U.S. policymakers aligned with the interests of U.S. multinational corporations: that human life in the Third World is worth much less than in the United States. If the poor and underemployed masses of Africa become sick or die from exposure to pollution exported from the United States, it will have a much smaller impact on the profits of international capital. Aside from the higher costs of pollution abatement in the United States, if highly skilled and well-compensated American workers fall prey to environmentally related health problems, then the expense to capital and the state can be significant. Although morally reprehensible, under the capitalist system it pays business to shift pollution onto the poor in the less developed countries.¹⁸

Given the willingness of undemocratic governments in the global South to trade off the environmental protection for economic growth, the growing mobility of capital (in all forms) is facilitating the export of ecological problems from the advanced capitalist countries to the Third World and subperipheral states.¹⁹ This *export of ecological hazard* from the United States and other northern countries to the less developed countries takes place 1) *in the money circuit of global capital*, in the form of FDI in domestically owned hazardous industries as well as destructive investment schemes to gain access to new oil fields, forests, agricultural lands, mining deposits, and other natural resources; 2) *in the productive circuit of global capital*, with the relocation of polluting and environmentally hazardous production processes and polluting facilities owned by transnational capital to the South; 3) *in the commodity circuit of global capital*, as witnessed in the marketing of more profitable but also more dangerous foods, drugs, pesticides, technologies, and other consumer/capital goods; and 4) *in the waste circuit of global capital*, with the

dumping of toxic wastes, pollution, discarded consumer products, trash, and other forms of "antiwealth" produced by northern industry.²⁰

Hence, corporate-led globalization is facilitating the displacement of ecological hazards from richer to poorer countries. Although a few international agreements (such as the Basel Convention) have been put into place, they are for the most part ineffective at stemming the transfer of hazards. Since few peripheral countries have the ability to adequately evaluate and manage the risks associated with such hazards, the export practices of transnational corporations are increasing the health, safety, and environmental problems facing many peripheral countries. In effect, U.S. capital is appropriating carrying capacity for the core by transferring ("distancing") externalities to the global South.²¹ As in the United States, it is the poorest and most politically repressed people in the South who are bearing the brunt of the global ecological crisis.

ANTIGREEN GREENBACKS: THE EXPORT OF ECOLOGICALLY HAZARDOUS INVESTMENT CAPITAL

U.S. FDI in "Dirty" Countries

Between 1999 and 2006, FDI from the United States totaled \$1.094 trillion. In fact, from 2002 to 2005, U.S. FDI abroad was more than twice the amount foreigners invested in the U.S. economy.²² Although labor costs and proximity to emerging markets (to service local clients or to acquire a strategic position themselves) are often the most important consideration of U.S. investors, the lack of environmental regulations and enforcement in much of the global South also promises profitable investment opportunities. Since the mid-1970s, the U.S. regime of environmental regulation has resulted in stricter laws, increased delays due to permitting, and higher costs related to pollution control technology, liability and insurance cases, and worker health and safety. These costs are especially significant for companies involved in the production of heavy metals, asbestos-containing products, copper and lead smelting, and leather tanning and has led these industries to relocate overseas.²³ The competition for foreign investment among the developing countries is fierce, and, combined with the imposition of structural adjustment policies by the International Monetary Fund and World Bank on indebted developing countries, more and more nations are opening themselves up to increased FDI by weakening environmental standards.

Historically, FDI was motivated principally by the availability of natural resources abroad and by a desire to internationalize companies' value chains in order to benefit from lower labor costs in other countries. Even today, FDI

is concentrated heavily on a few dozen nations that possess abundant natural resources, including smaller nations such as Equatorial Guinea, Angola, Sudan, Venezuela, Azerbaijan, and Kazakhstan. However, some of the upsurge of FDI into the developing world since the mid-1990s is motivated by the privatization of public utilities, land, and resources in several countries. But with the expansion of international trade, brought about by the increased efficiencies of global transportation and communications networks, manufacturing operations can now be located in almost any corner of the world. To take advantage of these conditions, U.S. multinational corporations and financial institutions are increasing their investments in highly polluting and environmentally hazardous industries in the global South, including those involved in resource extraction, heavy manufacturing, chemicals, and electronics. As a consequence, the rate of growth in hazardous industries in the developing countries is now greater than the overall industrial growth in those same countries, indicating that the cost advantages stemming from weaker environmental protection are attracting investment. Again, this trend began the late 1970s, just as environmental regulations became more stringent in the United States and other advanced capitalist countries.²⁴

China: The New Economic Superpower or Ecological Nightmare?

Investment havens for dirty industry are located in some of the world's most populous countries, including China, India, and Russia. FDI is an especially important driver of the Chinese economy. For the first time on record, China surpassed the United States as the world's foremost recipient of FDI in 2003. In fact, China now attracts almost one-third of the developing nations' FDI and is the fastest-growing economy in the world.²⁵ The development strategy rests on utilizing FDI provided by multinational corporations and northern banks to promote export-oriented industrialization, particularly in terms of supplying cheap exports directly to the U.S. market through Wal-Mart and other retailers. Foreign firms now dominate this export activity and control a 57 percent share of China's exports.²⁶ Drawn by a highly disciplined and abundant labor force willing to work for \$4 a day or less, China has emerged as the world's low-cost manufacturing leader. As *BusinessWeek* marveled,

"The China Price." They are the three scariest word in U.S. industry. In general, it means 30 percent to 50 percent less than what you can possibly make something for in the US. In the worst cases, it means below your cost of materials.²⁷

Although China has excelled in providing low-quality consumer goods, the country is now ramping up to create more advanced industries, adding state-of-the-art capacity in cars, specialty steel, petrochemicals, and microchips.

Thus, while American petrochemical makers have invested in little new capacity inside the United States over the past decade, over 12,000 workers are constructing a \$2.7 billion petrochemical complex in Nanjing, China. This facility will be among the world's largest, most modern complexes for making ethylene, the basic ingredient in plastics. Constructing such a plant in China offers sizable cost advantages over rival facilities in the United States, Europe, and Japan because of the lower environmental costs of doing business. The Chinese government allows industry to freely pollute the air, water, and ground, which (combined with the low cost of labor) easily allows industry to undercut the prices charged by companies abiding by strict standards elsewhere in the world. However, the economic incentives offered to foreign capital to invest in China, including few controls over pollution and worker health and safety violations, have created an ecological nightmare. As stated by journalists Joseph Kahn and Jim Yardley,

Environmental woes that might be considered catastrophic in some countries can seem commonplace in China: industrial cities where people rarely see the sun; children killed or sickened by lead poisoning or other types of local pollution; a coastline so swamped by algal red tides that large sections of the ocean no longer sustain marine life. China is choking on its own success.²⁸

The magnitude of this ecological crisis is apparent in a 2007 draft report by the World Bank and China's State Environment Protection Agency. The study finds that 750,000 people die prematurely in China each year, mainly from air pollution in the large cities. In fact, the numbers are so mind-boggling that the Chinese government "persuaded" the World Bank to remove nearly a third of the report's information on pollution prior to its official release because it would have provoked "social unrest" among the masses (the World Bank agreed to do so in a pared-down version of the final report). Missing from the final report are the original findings that high air pollution levels in Chinese cities is causing the deaths of 350,000 to 400,000 people each year. Another 300,000 people die prematurely each year from poor indoor air quality.²⁹ Incredibly, only 1 percent of the country's 560 million city dwellers breathe air considered safe by the European Union. And air quality is getting worse. The central government's most recent report put the cost of air pollution at \$64 billion in 2004.³⁰

Of the twenty most polluted cities in the world, according to the World Bank, sixteen are located in China. About one-third of China's lakes, rivers, and coastal waters are so polluted that they pose a threat to human health, according to the Organization for Economic Cooperation and Development. As a result, 300 million Chinese do not have access to clean drinking water, resulting in about 60,000 premature deaths a year.³¹ Acid rain falls on more than 30 percent

of the country.³² Industrial pollution is so extensive that the country's birth defect rate is triple that of the developed nations. At least a million Chinese babies born each year have birth defects.³³ As acknowledged in the World Bank report, China's poor are disproportionately affected by these environmental health burdens.³⁴ The World Bank puts the cost of China's pollution at 8 percent of GDP, although some economists say it is as high as 10 percent of GDP, which is equal to the country's rate of economic growth. Many Chinese people are fed up with the pollution; a number of environmental riots have erupted in China in recent years and are likely to become more numerous in the future.³⁵

Africa's Black Gold: Investing in Repression and Environmental Injustice

Given the continuing U.S. war in Iraq and growing instability in the Middle East, the United States is funneling investment to other parts of the world in search of cheaper oil and natural resources. In 2001, Vice President Dick Cheney predicted that Africa would soon become the fastest-growing source of oil for the American market (as much as 25 percent of U.S. imports by 2015).³⁶ Investment capital has poured in to begin making this prediction a reality (West Africa currently supplies 15 percent of America's energy). For instance, energy companies have invested several billion dollars in Equatorial Guinea, including the construction of a major liquefied natural gas facility owned by Chevron. As a result, Equatorial Guinea has become the third-largest oil exporter in sub-Saharan Africa, after Nigeria and Angola. Oil production today stands at more than 300,000 barrels a day, or \$5.5 billion a year. But despite its oil wealth, Equatorial Guinea remains one of the poorest countries in Africa.

Under the dictatorship of Teodoro Obiang, oil companies have bribed the government to gain access to Equatorial Guinea's rich natural resources at favorable prices and disregard safeguards required in the United States. The Securities and Exchange Commission is now investigating bribery under the Foreign Corrupt Practices Act. Investigations show that as much as \$700 million in bribe payments were made to members of Obiang's regime and his family by ExxonMobil, Amerada Hass, Marathon Oil, and Chevron Texaco through Riggs Bank in Washington, D.C.³⁷ Although friendly to international investors, the dictatorship has treated its own people with brutality. Human rights abuses remain unchecked in the country. Opponents are often tortured. Nearly half of all children under the age of five are malnourished, and half a million people live in poverty. All the major cities lack clean water and basic sanitation, while the average Equatoguinean scrapes by on \$2 a day.³⁸ The inflow of FDI and outflow of oil has done nothing to improve the quality of life for the majority of the people. Instead, it has come as a curse.

Nigeria is another country that has seen huge investments of U.S. capital to develop the oil fields and is now the eighth-leading exporter of oil in the world (and the largest oil producer in Africa). More than \$300 billion in oil has been exported since 1975. Petroleum companies such as Chevron and Royal Dutch Shell have invaded the oil-rich Niger delta, home to the Ogoni people and one of the most populated regions in all of Africa. At the invitation of a brutally repressive Nigerian government, the international oil companies ignore standard environmental protection measures in order to cut costs and maximize profits. Enjoying a complete lack of government oversight, the oil companies have created what the European Parliament calls "an environmental nightmare" for the Ogoni people. A constant barrage of oil spills—an average of 300 per year—have significantly contaminated waterways and groundwater, killed fish and other wildlife on which the local people are dependent, and decimated the resource base of numerous subsistence economies in the region. Petroleum pollution in Ogoni streams is 680 times greater than European Community permissible levels. Leaking pipes have also caught fire, exploded, and killed hundreds of people. Toxic wastes dumped in unlined pits litter the countryside, while continuous gas flares pollute nearby villages with 35 million tons of carbon dioxide a year (76 percent of natural gas in the oil-producing areas is flared, compared to 0.6 percent in the United States, along with 12 million tons of methane, which is more than any nation on earth). Local crops will not grow, and acid rain pervades the area.³⁹

As the ecological crisis emerged full force in the early 1990s, the Ogoni people organized peaceful protests to raise international awareness of their plight. In response to the awareness that such actions were generating around the world, the then military government reacted with extreme repression. In November 1995, Ken Saro-Wiwa, the leader of the Movement for the Survival of Ogoni People (and a highly respected and renowned playwright in the international community) and eight other Ogoni leaders were arrested on trumped-up treason charges. They were immediately tried by a military tribunal, found guilty, and executed. Despite the military's unfounded allegations, the world knew that the "Ogoni 9" were killed for organizing peaceful protests against the country's large oil exporter, Royal/Dutch Shell. As stated in a recent report, "Shell failed to use its substantial influence with the Nigerian government to stop the execution. Indeed, Shell has publicly admitted that it had invited the Nigerian army to Ogoni land, provided them with ammunition and logistical and financial support for a military operation that left scores dead and destroyed many villages."⁴⁰ In defense of the company and the military regime following the execution, Naemeka Achebe, the general manager for Shell Nigeria, stated, "For a commercial company trying to make investments, you need a stable environment. . . . Dictatorships can give you

that. Right now in Nigeria, there is acceptance, peace, and continuity."⁴¹ According to Human Rights Watch, hundreds if not at least 2,000 people have been killed by the Nigerian military in a combination of ethnic strife and repression in the delta since the new millennium.⁴²

In response to the repression, Nigerian villagers have brought suit in U.S. court against Chevron alleging that the company supported military attacks on protesters in the Niger delta. A Human Rights Watch investigation uncovered Chevron's use of a covert Nigerian security force known as the "kill-and-go" squad against the movement. In the trial, Chevron stated that the incident was "regrettable" but resulted from attempts by protesters to take control of weapons held by security personnel. Although the company was cleared of direct liability in 2004, the judge in the case noted that a reasonable juror could reason that the company had indirect responsibility and could be liable for reparations because of its "extraordinarily close relationship" with Chevron Nigeria. In August 2007, another judge allowed claims of wrongful death and other human rights suits to proceed.

Burma: Subordinating Human Rights and Environmental Protection to the Almighty Dollar

In partnership with the Burmese military regime, Western oil companies have also built natural gas pipelines in southern Burma, leading to countless human rights abuses against the local population and severe environmental destruction. In 2006, FDI in the oil and gas sector reached \$2.635 billion, or roughly 35 percent of all FDI. The notorious Yadana and Yetagun pipelines are the largest of these foreign investment projects in Burma and have generated over \$3 billion in hard currency for the regime (the largest single source of income for the military). This is an oppressive government that massacres nonviolent protesters (including religious leaders), ignores the result of democratic elections, and faces international sanctions for its human rights abuses. The military has provided key services to Unocal and other oil companies around the construction of the pipelines, including the forcible relocation of several villages. Burmese soldiers have conscripted thousands of civilians to perform forced labor (slavery) to build the pipelines and have murdered, raped, tortured, and forcibly relocated innocent villagers along the route of the pipeline. According to the World Wildlife Fund, the pipelines pass through the largest block of intact rain forests in Southeast Asia and are among the most destructive investment projects in the world. More recently, FDI has brought about an increase in large-scale resource extraction and an increase in human rights and environmental abuses connected to a plethora of other development schemes, including natural gas, dam, logging, and mining projects, mostly in ethnic minority areas.⁴³

Despite international outrage over these incidents, the U.S. polluter-industrial complex has come to the defense of the Burmese government. While Dick Cheney was chief executive officer of Halliburton, the company did business on the Yadana project in Burma, including laying offshore portions of the pipeline. Halliburton is one of the driving forces behind USA-Engage, a corporate coalition that, along with the National Foreign Trade Council, has become a serious obstacle to the Burmese democracy movement. They oppose sanctions on Burma (renamed Myanmar by the junta) despite calls for the sanctions by popular opposition forces inside the country and supported the ruling by the U.S. Supreme Court in 1990 that struck down a Massachusetts law placing trade sanctions on Burma. The corporation's winning argument was that states should not be able to steer money away from the Burmese dictatorship because the federal government had already enacted very weak sanctions against Burma that preempt state laws (these same corporations also vigorously lobby Congress not to impose those same federal sanctions).⁴⁴

The Bush administration has also acted to limit the ability of foreign nationals to obtain judgments against despots and U.S. corporations in American courts, arguing that such lawsuits have become a threat to American foreign policy and could undermine the War on Terror. For the past two decades, federal courts have allowed victims of torture and other abuse to file claims under an obscure 1789 statute for violations of human rights norms, commonly known as the Alien Torts Claims Act. Bush administration officials fear that the torts act will be used in claims against U.S. companies overseas. The Justice Department brief was filed in the San Francisco-based Court of Appeals for the Ninth Circuit in a case involving the Yadana pipeline in Burma and argued that because the "alleged injuries were incurred in a foreign country . . . with no connection whatsoever to the United States," the case should be dismissed. The filing prompted an outcry from human rights groups. Burmese citizens say their human rights were violated during the construction of the \$1.2 billion gas pipeline, a joint venture of the Burmese military regime, Unocal (a multinational oil and gas company based in El Segundo, California), and two other private firms.⁴⁵ Only with the peaceful prodemocracy protests led by tens of thousands of Buddhist monks in Rangoon in late September 2007—to which the Burmese government responded by clubbing, shooting, and detaining demonstrators—was the Bush administration forced to announce sanctions against the Burmese government and some of its financial backers.

Since the 1980s, the military junta has detained and tortured thousands of political prisoners, including Aung San Suu Kyi, the prodemocracy leader who has been under house arrest for twelve of the past eighteen years. Again,

the Burmese case is not unique in the age of corporate-led globalization. Similar human rights abuses, the weakening of ecological safeguards, and environmental injustices at the hands of multinational corporations can be found in Ecuador, India, Kenya, Mexico, Russia, Cambodia, Guatemala, and countless other countries seeking foreign investment. As stated in a recent report by Amnesty International and the Sierra Club,

We live in a world where multinational corporations can make or break a nation's economy, where the chairman of Exxon tells the World Petroleum Congress in 1997 that developing nations should avoid strict environmental regulations or risk losing foreign investment. From emerging economies in the South to economic superpowers in the North, governments are lowering environmental standards to increase global trade and are allowing their foreign policies to be driven and directed by corporate, instead of democratic, values. In many parts of the world, corporations and governments are colluding to violate the rights of environmental activists in the name of profit and economic development.⁴⁶

GLOBAL POLLUTION HAVENS: THE EXPORT OF ECOLOGICALLY HAZARDOUS INDUSTRY

In the age of corporate-led globalization, free-trade and neoliberal economic policies are encouraging countries to lower wages and environmental standards in order to cut costs and achieve a comparative advantage in the world economy. By pitting various nations against one another in this "race-to-the-bottom" phenomenon in which countries lower environmental regulations in order to gain a competitive edge, multinational corporations have acquired greater and greater power in relation to the nation-state. With the increased international mobility of industrial capital, various governments at all levels are pressured to reduce the financial burden of environmental regulations, taxation policy, labor rules, and consumer product safety requirements on industry. Otherwise, the manufacturer will simply pick up and move to another part of the world where the business climate is more favorable. The state is left with little choice but to grant such concessions if the jobs and other economic benefits are to be preserved.

Over the past three decades, those U.S.-based industries most heavily impacted by environmental regulations, including lead smelting, dye and chemical manufacturing, asbestos-related production, pesticides, textiles, copper smelting, vinyl chloride, and so on, have moved to other countries with weaker rules and enforcement.⁴⁷ American companies often make no secret of the fact that more stringent environmental regulations are a major factor in relocating facilities abroad. As stated by the U.S. agency Chemex, "As a result of tougher

environmental regulations . . . many North American [mineral oil] refineries have ceased operations. Recognizing an opportunity, Chemex redirected its focus to the procurement of quality used refineries" for export to developing countries.⁴⁸ This process is now accelerating as double standards in worker and community health protection become more common in the world, especially in the less developed countries of the Caribbean, Africa, Latin America, and especially Asia. According to a UN study, over half the transnational firms surveyed in the Asia-Pacific region adopt lower standards in comparison to their country of origin in the North.⁴⁹ As a result, the increased mobility of U.S. capital is serving to relocate many of the worst public health risks and environmental injustices associated with "dirty industry" to the global South.

Union Carbide in India: A Disastrous Double Standard

Perhaps the case that best illustrates the disastrous impacts of the new double standard in the global economy can be found in India. On the night of December 2, 1984, a runaway chemical reaction and gas leak developed at a Union Carbide India Ltd pesticide factory in the city of Bhopal. By the time workers at the plant discovered the problem, it was too late. Poorly designed safety systems were either malfunctioning or turned off. The worst chemical disaster in history had begun. Over twenty-seven tons of methyl isocyanate (MIC) spewed from the plant and enveloped the city in a cloud of deadly poison. In the middle of the night, between 2:00 and 3:00 A.M., thousands of people woke up coughing and gasping for air, their eyes burning from the fumes. Coming outside their homes, there was no place to run, as the gases were everywhere. Many fell dead as they ran for safety. More than 2,500 people lost their lives that night, and more than 5,500 followed in the next three days. Over 520,000 people were exposed to the gases. Hardest hit were the poor living in substandard housing adjacent to the factory. Eventually, more than 15,000 to 20,000 people would die as a result of exposure-related illnesses in the following years, according to popular accounts. People are still dying today. An estimated 120,000 to 150,000 survivors remain chronically ill. The most common problems range from respiratory diseases and gynecological disorders to cancers, neurological problems, and immunological system disorders. It is perhaps the worst industrial disaster in history.⁵⁰

Given the lack of money spent on environmental safety by Union Carbide, it is clear that the Bhopal "accident" was a disaster waiting to happen. In comparison to Union Carbide's sister facility in Institute, West Virginia, there were significant health and safety shortcuts taken in the construction and operation of the Bhopal plant. Built in 1969 to provide pesticide products for India's agricultural, or "green," revolution, the plant proved profitable for many

years (the year before the leak, the plant had sales of \$202 million and profits of \$8.8 million). Nevertheless, Union Carbide spent \$5 million more in safety improvements for the Institute plant, including emergency scrubbers, flare towers, leak detection systems, and emergency dump tanks and backup systems. In order to save money, these safeguards were lacking at the Bhopal plant and probably would have prevented the accident. In addition, significant cost cutting in maintenance and safety procedures, including shutting down the refrigeration units that kept the MIC cool, allowed for a violent chemical reaction to occur. Incredibly, the company cut operating costs further by routinely shutting down the plant's key safety systems (the flare tower and vent gas scrubber) even though MIC was being stored in very hot tanks with no refrigeration. Finally, despite the greater dangers, Union Carbide's corporate engineering group overruled the Indian subsidiary's objections in deciding to store large amounts of MIC in large, substandard tanks. Although cheaper, this practice is regarded as far too dangerous in Germany, Japan, and the United States and is avoided. In short, weaker environmental standards and enforcement in India allowed Union Carbide to engage in a series of practices—all designed to save the company money—that resulted in a horrific catastrophe. But this is not atypical of India. The *Hindustan Times* reports that "only 16 out of the 50 pesticide manufacturing units in the country have any worthwhile pollution control system working and the general system of supervision of pollution control is dangerously lax."⁵¹

In 1989, Union Carbide and the Indian government arrived at a negotiated settlement of \$470 million for all gas disaster-related injuries. The average payout for the personal injury was between \$370 and \$533 per person (in contrast, the penalty for the Exxon Valdez disaster, where no human lives were lost, was \$5 billion). However, much of the money was not distributed for many years (in 2004, the Indian government released some \$330 million in compensation to be split among all 578,000 victims of the disaster). In its 1989 annual report, Union Carbide told its shareholders that the Bhopal disaster had cost them forty-three cents per share. Despite the tragedy, Union Carbide became a wholly owned subsidiary of Dow Chemical Company in February 2001. Dow, which assumed Union Carbide assets, has refused to accept its liabilities in India. The abandoned factory site remains littered with toxic waste, leaking poisons into the surrounding neighborhood. As a result, the survivors of this corporate disaster tour the United States demanding that Dow assume liability for the health impacts and lost livelihoods caused by the "accident" and engage in a full cleanup of the site. Over 20,000 people continue to live in close proximity to the old factory site and exposed to toxic chemicals left behind. But despite the awful legacy of the Bhopal disaster, it's business as usual for corporate polluters in India.

Mexico: Environmental Troubles South of the Border

Since the passage of NAFTA in 1994, Mexico's environmental problems have worsened throughout the country. NAFTA is a free-trade agreement that reduces tariffs and other barriers to trade among Mexico, Canada, and the United States. Aided by the agreement, dirty industries are moving out of the United States to Mexico, where environmental standards are lax, unions are weak, and worker health and safety concerns are ignored.⁵² Along the 2,100-mile U.S.-Mexico border running from the Pacific Ocean to the Gulf of Mexico, there are more than 2,000 factories, or maquiladoras, including U.S. companies, involved in textiles and clothing, chemicals, and electronics. A 1991 U.S. Government Accounting Office study even found that several Los Angeles furniture manufacturers relocated to Mexico after the establishment of stringent air pollution restrictions in California (80 percent of these businesses cited environmental costs in their decision to move).⁵³

The explosive growth of the maquiladoras is creating an ecological disaster along both sides of the border. Factories big and small generate huge volumes of pollution (some 87 percent of maquiladoras use toxic materials in their production processes). Reports show that industrial waste is seldom treated before it is discharged into rivers, arroyos, the Rio Grande, or the ocean. Maquiladoras also generate a substantial amount of hazardous waste, including dangerous solvents such as trichloroethylene, acids, heavy metals like lead and nickel, paints, oils, resins, and plastics. Over 65 percent of such waste is unaccounted for in either the United States or Mexico.⁵⁴ The situation is growing worse because NAFTA no longer requires transnational corporations to return waste to the United States for proper disposal.⁵⁵

Pollution problems along the border are not limited to manufacturing facilities. In July 2003, the U.S.-based Sempra Energy Company completed construction of a \$350 million natural gas-fired power plant just three miles over the border in Mexico. The company built the plant in Mexico, near the town of Mexicali, in order to dodge California's stringent air quality regulations, even though the electricity is being sent back to consumers in southern California. A subsidiary of San Diego Gas & Electric, Sempra's plant annually emits approximately 378 tons per year of nitrogen oxides, 376 tons of carbon monoxide, and almost four megatons of carbon dioxide. The plant also uses up to 3 million gallons of water per day, depriving the arid and rain-starved city of Mexicali of valuable water from the New River. This is the first power plant in Mexico to be fully owned and operated by a foreign corporation and, in the words of CorpWatch, is turning the border region into a "dirty energy export zone."⁵⁶ Sempra is not alone. In an earlier survey of U.S. companies operating in Mexicali, 25 percent indicated that stiff environmental regulations in the United States and weaker ones in Mexico were either the

main factor or a factor of importance in their decision to locate facilities in the town.⁵⁷

Mexico is emblematic of the vast social and environmental problems that corporate-led globalization, NAFTA, and neoliberal economic policy have brought to the global South. The Mexican government, under pressure from various U.S. agencies and international financial institutions such as the World Bank, the International Monetary Fund, and the WTO, has adopted export-oriented industrialization policies aimed at attracting foreign capital into the country. This strategy requires that production costs be kept low if companies are to successfully compete with other export producers around the world. Production costs are relatively low in Mexico because of cheap labor, natural resources, and energy as well as low taxes and other subsidies but are also depressed by limited state control over industry with respect to the environment and public health.⁵⁸ Since the passage of NAFTA in 1994, real spending on environmental protection has declined by 45 percent in Mexico.⁵⁹ Contrary to prevailing assumptions, foreign companies are no more likely than domestic firms to comply with Mexican environmental law, according to a World Bank survey of over 200 firms across all of Mexico.⁶⁰ In other words, U.S. corporations are "equal opportunity" ecological offenders.

In comparison to the United States, the twelve largest industrial sectors in Mexico are alarmingly "dirtier." For instance, the textile industry is up to 1,225 times dirtier (depending on the pollutant) than its U.S.-based counterparts, while the paper industry is up to 592 times dirtier. On the whole, most Mexican-based industries are about six times dirtier than in the United States. However, Mexican-based companies involved in the production of certain chemical and pharmaceutical products, iron and steel, and nonferrous metals were much cleaner than their U.S.-based counterparts.⁶¹ Nevertheless, despite the weak state of environmental enforcement, many of the dirtiest industries in Mexico are beginning to relocate to "pollution havens" in China, where labor is four times cheaper. As a result, the share of dirty industry is declining in *both* the United States and Mexico. Between 1988 and 2000, in terms of total production, pollution-intensive economic activity as a share of total production in the United States decreased by three percentage points and in Mexico by five.⁶²

Despite the flight of dirty industry to China, the ecological crisis still continues to deepen in Mexico. More than \$50 billion in damage is done each year to Mexican society from air and water pollution, soil erosion, and municipal solid waste. This is equivalent to 10 percent of the country's GDP. In other words, for every dollar the Mexican economy grows, ten cents is thrown away. As stated by environmental scholar Kevin Gallagher, to waste \$50 billion per year is "a tragedy when half of Mexico's 100 million people live on less than \$2 a day."⁶³

Out with the Old and in with the New: The Export of Polluting Factories and Equipment

The export of hazards in the productive circuit of capital is not limited to the siting of brand-new but "dirty" production facilities in the global South. Some of America's most highly polluting factories and equipment rendered obsolete by age and/or U.S. environmental regulations are being sold off in the international market and shipped to countries that cannot afford modern and/or cleaner technologies. This international trade in retired equipment (and vehicles) is estimated to be around \$150 billion per year. A 2003 report by the German think tank Adelphi Research found that these relocated facilities in the steel, energy, cement, and mineral-oil industries create "additional pollution of a considerable dimension."⁶⁴ In fact, these polluting facilities and technology can have a second life in the global South that is longer than the first term in the United States, create enormous health problems, and serve to "hinder sustainable development." Estimates are that secondhand machinery exported to the developing countries consumes an average of 20 percent more energy than more modern equipment and therefore produces greater quantities of emissions that cause global warming. Three U.S. automobile manufacturers also recently sold emission control technology to China that did not meet U.S. air pollution standards.⁶⁵

Old power plants are some of the worst offenders. The transfer of used fossil power stations alone, with an overall capacity of twenty-three gigawatts, cause additional annual emissions of approximately 2.2 billion tons of carbon dioxide in comparison with modern power stations.⁶⁶ In Turners Falls, Massachusetts, an old 2,600-ton coal-fired power plant is being dismantled and shipped to Guatemala. There it is being rebuilt in order to power a textile mill that will produce pants, shirts, and sportswear for export back to American consumers. The Turners Falls plant cost about \$44 million when it was built in the late 1980s to power a paper mill and is being rebuilt in Guatemala at a cost of \$22 million. Furthermore, the export of "dirty" production facilities and technologies also increases the demand for U.S.-produced cleanup technologies and services by the state and other corporations operating in the global South. The global cleanup industry is now valued at over \$300 billion. It is the export of pollution abatement and cleanup technologies that enable waste-producing firms to meet the "minimal" regulatory requirements of most developing nations. As stated by CorpWatch founder Josh Karliner, "When the cleanup firms are subsidiaries of the same corporations that generate large amounts of hazardous waste in developing countries, the double benefits are obvious."⁶⁷

BUYER BEWARE: THE EXPORT OF ECOLOGICALLY HAZARDOUS COMMODITIES

Third World Testing Grounds for Dangerous Chemicals

In the era of corporate-led globalization, dangerous pesticides and other chemicals, biotechnology, drugs, and other consumer products that are highly restricted in the United States are still manufactured here and routinely exported to other nations. American corporations know that there is little government oversight or public pressure to inspect and regulate such products in overseas markets and that significant profits are to be made from shipping their hazardous products to unsuspecting consumers all around the world. This process has been under way for many decades but is accelerating with the expansion of world trade.

One of the most hazardous commodities exported by the United States to the rest of the world are pesticides. Roughly a billion pounds of pesticides are exported each year, or *forty-five tons per hour*. Tragically, American policymakers have done little to stop the export of pesticides forbidden in the United States. Under the Federal Insecticide, Fungicide and Rodenticide Act, the Environmental Protection Agency (EPA) does not review the health and environmental impacts of pesticides manufactured for export only, or what are termed "never-registered" pesticides. The most recent figures available indicate that nearly 22 million pounds of these exported pesticides are banned or severely restricted for use in the United States, an average of more than twenty-two tons per day. Furthermore, an average rate of more than thirty tons per day of "extremely hazardous" chemicals, as rated by the World Health Organization, are also exported. Nearly 1.1 billion pounds of known or suspected carcinogenic pesticides were exported by the United States between 1997 and 2000, an average rate of almost sixteen tons per hour.⁶⁸ As a result, many pesticides that the EPA has judged too dangerous for domestic use, as well as pesticides never evaluated by the EPA, are regularly shipped from U.S. ports.⁶⁹

Under pressure from the polluter-industrial complex, the U.S. government has refused to adopt two key treaties that would address this problem: the Stockholm Convention, which eliminates chemicals the international community has agreed are extremely dangerous to human health and the environment, and the Rotterdam Convention, which controls the international trade of highly toxic chemicals. The Stockholm Convention focuses on persistent organic pollutants, which move up the food chain and accumulate in the body fat of humans and other animals. The chemicals can cause reproductive and development disorders, many different kinds of cancers, and damage to the

immune and nervous systems. The Stockholm Convention identifies twelve pollutants for elimination, including nine pesticides (aldrin, endrin, dieldrin, chlordane, dichloro-diphenyl-trichloroethane [DDT], heptachlor, hexachlorobenzene, mirex, and toxaphene). Similarly, the Rotterdam Convention requires that any country importing pesticides and certain other hazardous chemicals be informed of bans or severe restrictions on those substances in other countries. The treaty gives a receiving country the power to refuse shipments of chemicals harmful to the environment and public health. As stated by Kristin Schafer of the Pesticide Action Network North America, "Washington's inability to adopt these treaties [Stockholm and Rotterdam]—now ratified by 127 and 110 countries, respectively—constitutes a failure not only of US leadership but of responsible participation in global efforts to protect human health."⁷⁰

The U.S. failure to ratify these agreements permits the U.S. polluter-industrial complex to "legally" export deadly poisons to the rest of world. But as noted by Fatma Zora Ouhachi-Vesely, the special rapporteur to the UN Commission of Human Rights, "Just because something is not illegal, it may still be immoral. Allowing the export of products recognized to be harmful is immoral."⁷¹ The most dangerous U.S. chemical exports are often destined for Third World countries where the prevailing working conditions—a lack of protective equipment, unsafe application and storage practices, and inadequate training of pesticide applicators—greatly magnify the health risks for agricultural workers and their families. In fact, about 57 percent of these products are shipped to the developing world, while most of the remaining chemicals are shipped to ports in Belgium and the Netherlands for reshipment to developing countries.⁷² As a result, poisonings continue to mount. The World Health Organization estimates that 3 million severe pesticide poisonings occur each year, and, of these, a minimum of 300,000 people die, many of them children. Some 99 percent of these cases occur in developing countries.⁷³

The Global Circle of Poison

The people of the global South are not the only ones being poisoned by pesticides exported from the United States. Third World agricultural exports contaminated with pesticides come back to the United States and other northern countries in a vicious "circle of poison." Although the U.S. environmental movement was successful in legally restricting or prohibiting the use of many hazardous chemicals such as DDT in the 1970s, multinational corporations continue to manufacture and export these same pesticides to the Third World. The circle of poison closes when U.S. citizens consume Third World exports contaminated with the pesticides. For instance, imports of Chilean grapes,

Canadian and Mexican carrots, Mexican broccoli and tomatoes, Argentine and Hungarian apple juice, and Brazilian orange juice are found to have worse levels of pesticide contamination than U.S.-grown crops.⁷⁴

Food and Drug Administration (FDA) data show that food imports from developing countries are often contaminated with pesticides banned or restricted for health reasons in the United States, including a violation rate of 40.8 percent for all imports of Guatemalan green peas, 18.4 percent for Mexican strawberries, and 15.6 percent for Mexican lettuce.⁷⁵ FDA inspections of Chinese imports have also caught dried apples preserved with a cancer-causing chemicals, frozen catfish laden with banned antibiotics, scallops and sardines coated with bacteria, and mushrooms laced with illegal pesticides. These were among the 107 food imports from China that the FDA detained at U.S. ports in April 2007 along with more than 1,000 shipments of tainted Chinese dietary supplements and other products.⁷⁶

Both U.S. and foreign corporations know that exporting tainted products into the United States poses little risk of being caught by an underfunded and understaffed FDA. FDA testing of food imports (and domestic products) is infrequent and restricted to only a few choice chemicals. Since 1997, FDA officials have examined just 1.5 percent of all food imports, while shipments skyrocketed from more than 4 million entries in 1997 to more than 15 million in 2006. Under assault from the Bush administration and the polluter-industrial complex, the FDA's regulatory affairs staff is getting leaner—it shrank from a high of 4,003 full-time employees in the 2003 fiscal year to 3,488 in 2007. As a result, noncriminal foreign and domestic inspections carried out by the FDA's Center for Food Safety and Applied Nutrition staffers amounted to 9,038 in 2005, down from 11,566 just two years earlier.⁷⁷

In the few instances where testing is done, FDA health standards are inadequate. In some cases, consumption of a single food item contaminated with chemicals at levels allowed by the FDA, such as DDT in fish, would expose the consumer to more than fifty times the daily intake levels considered "safe" by the EPA. Persistent organic pollutants such as DDT and polychlorinated biphenyls (PCBs) are implicated in a breast cancer epidemic that impacts an estimated 2,044,000 women in the United States and claims about 40,000 lives each year.⁷⁸ In fact, a person eating the U.S. Department of Agriculture's recommended five servings of fruits and vegetables per day will eat illegal pesticides at least seventy-five times per year. In contrast, the average consumer has to eat about 100 pounds of fresh fruits and vegetables in order to eat from a shipment tested for pesticides by the FDA. This means that the average American is at least fifteen times more likely to eat an illegal pesticide than to eat from a shipment tested by the FDA.⁷⁹ A form of *toxic trespass*, these dangerous chemicals are invading the bodies of U.S. citizens and

are linked to various types of cancers, learning disabilities and autism, immune system suppression, central nervous disorders, damage to reproductive systems, and numerous other disorders.⁸⁰ According to the U.S. Centers for Disease Control, the American people carry a "body burden" of the pesticides chlorpyrifos (Dursban) and methyl parathion that dramatically exceeds acceptable thresholds for chronic exposure.⁸¹

"Getting the Lead Out" of Chinese Imports

The "circle of poison" in the new global economy is not restricted to pesticides. To the contrary, the trade in dangerous consumer goods coming into the United States has become a regular feature on the front pages of American newspapers. China is one of the world's worst offenders. American imports of Chinese goods have nearly tripled since 2000, largely because of low prices stemming from the cheap costs of labor power, high labor productivity, and weak environmental and worker health and safety standards. These conditions also result in the manufacturing of dangerous consumer products and additives. In 2007, thousands of dogs and cats became ill or died across the United States after consuming pet food filled with the chemical melamine. The problem occurred when the Las Vegas firm ChemNutra imported about 1.7 million pounds of Chinese wheat gluten. Unknowing that it was tainted with the industrial chemical, ChemNutra added it to millions of containers of pet food. Melamine, which is used to make plastics, artificially inflates protein levels (and makes the food appear more nutritious) and raises the price of the product for Chinese exporters.⁸² Similarly, in July 2007, toothpaste contaminated with diethylene glycol and imported into the United States from China and South Africa was discovered and confiscated by U.S. officials. Since 2006, American authorities have also recalled toxic seafood, juice made with unsafe color additives, and defective tires from China (Foreign Tire Sales Inc. of Union, New Jersey, was forced to recall as many as 450,000 imported tires because of tread separation).

In response to growing public outrage in the United States and political pressure on the Chinese government over these types of incidents, China executed Zheng Xiaoyu, who headed the State Food and Drug Administration from 1998 to 2005. Xiaoyu was accused and convicted of dereliction of duty and of taking about \$850,000 in bribes from pharmaceutical companies.⁸³ Nevertheless, the importation of toxic products from China continues. In August and September 2007, Mattel Inc. ordered three high-profile recalls of more than 21 million toys. The toys were also made in China and decorated with dangerous levels of lead paint and/or designed by Mattel with small magnets and other hazards for small children (childhood ingestion of lead can re-

sult in reduced intelligence, hyperactivity, attention deficit disorders, and various other forms of brain damage or even death). Among the most popular children's toys in the nation, these products included Thomas the Tank engine toys, Barbie doll accessories, and toy cars (Mattel is the world's largest toy company and has about 65 percent of its products manufactured in China).⁸⁴ Much of the lead paint was used from a lower-cost third-party supplier (or subcontractor) in China instead of paint supplied directly from the contractor.⁸⁵

Some Chinese-made vinyl baby bibs sold at Toys "R" Us stores also were contaminated with lead, as were vinyl lunch boxes and children's jewelry. In fact, Reebok International Ltd was earlier forced to recall about 300,000 charm bracelets made in China with excessive lead after a four-year-old Minnesota boy died. The Consumer Product Safety Commission was forced to recall 150 million pieces of Chinese-made children's jewelry sold in vending machines across the United States in 2004 because of excessive lead levels (since 2003, the commission has conducted about forty recalls of children's jewelry because of high levels of lead). Two recent studies suggest that the lead turning up in Chinese-made jewelry is being obtained from discarded computers and other electronic goods from the United States that are being dumped in China and disassembled for the materials inside at recycling centers.⁸⁶ The toxic trash exported abroad is coming back to haunt the American people.

DUMPING ON THE THIRD WORLD: THE EXPORT OF POLLUTION AND HAZARDOUS WASTE

The Global Trade in Hazardous Waste

The United States is the single largest producer of hazardous wastes in the world. Each year, the United States produces some 238 million tons.⁸⁷ Meanwhile, the cost of hazardous waste disposal in the United States has grown from \$15 per ton in 1980 to over \$250 per ton, while the costs of incineration has increased over threefold to between \$1,500 and \$3,000 per ton. Although capital has looked to reduce expenses by locating hazardous waste dumps and facilities in poor communities of color throughout the United States, there is also a growing incentive to export wastes to developing countries. The disposal cost per metric ton of hazardous waste in Africa, for instance, has historically hovered around \$40 to \$50 per ton (and, in the case of an agreement between the Gibraltar-based company and the Benin Republic government, for as low as \$2.50 per ton).⁸⁸ These costs are so low because regulations governing toxic waste disposal are virtually nonexistent in developing countries.

The incentive to cut disposal costs by exporting toxics to the global South is also strong among other advanced capitalist countries. Hundreds of cases involving hundreds of millions of pounds of hazardous waste being exported from the advanced capitalist countries to the South have been documented over the past two decades. As if emboldened by the words of former World Bank chief economist Lawrence Summers—"I've always thought that underpopulated countries in Africa are vastly *under-polluted*"—dump sites of toxic waste from Western nations can be found throughout Africa, from Senegal to Nigeria, Zimbabwe, Congo, and even South Africa. In some years, West Africa alone has imported up to 300 million tons of toxic waste from some twenty-four industrialized countries.⁸⁹

A Toxic Terror in the Ivory Coast

The devastating impact of hazardous waste trade in Africa and the global South is illustrated by the case of the *Proba Koala* in the Ivory Coast. Exemplary of the growing integration of capital on a global scale, the *Proba Koala* was a Korean-built, Greek-managed, Panamanian-flagged tanker chartered by the London branch of a Swiss trading corporation the fiscal headquarters of which are in the Netherlands—the multi-billion-dollar Dutch global oil and metals trading company called Trafigura Beheer BV. The ship had been acting as a storage vessel for unrefined gasoline. In the summer of 2006, Trafigura had explored disposing of the ship's "washings" after a routine cleaning of the storage hull with caustic soda in Amsterdam. However, because of the cost estimate of \$300,000 or more for disposing of the waste in that city, the company instead elected to take the ship to the Ivory Coast, even though there are no facilities capable of handling high-level toxic wastes. On arrival, the captain of the *Proba Koala* contacted a local company called Compaigne Tommy to dispose of the waste for a mere \$15,000, representing a huge savings for Trafigura.

On August 19, 2006, the *Proba Koala* offloaded 528 tons of the washings onto more than a dozen tanker trucks. The washings were a toxic alkaline mix of water, gasoline, and caustic soda, which gave off many poisonous chemicals, including hydrogen sulfide. After loading up, Compaigne Tommy simply waited until after midnight. Under the cover of darkness, the tanker trucks fanned out to dump the waste in eighteen public open-air sites around the country's main city of Abidjan. These sites included the city's main garbage dump, a roadside field beside a prison, a sewage canal, and several neighborhoods. In a scene eerily reminiscent of the Bhopal disaster, citizens throughout the city awoke at night to an overpowering stench that burned the eyes and made it hard to breathe. By morning, nausea, vomiting, diarrhea, nose-

bleeds, stomachaches, chest pains, and breathing difficulties were affecting thousands of people. Tests later showed the sludge contained excessive levels of mercaptans and hydrogen sulfide, a potent poison that can quickly paralyze the nervous system and cause blackouts, respiratory failure, and death. More than 100,000 Abidjan residents sought medical treatment, and sixty-nine were hospitalized as a result of the dumping. Fifteen people died. The spreading illnesses sparked violent demonstrations from a population convinced that government corruption was to blame for the dumping. The political furor ultimately forced the prime minister and his government to resign in September 2006 (though many were later reinstated). Nevertheless, this mass resignation is unprecedented in the history of the Ivory Coast and symbolizes the anger among the African people that their home would be used as a dumping ground by the advanced capitalist nations.⁹⁰

Limitations of the Basel Convention for Controlling Global Dumping of Toxic Waste

In 1989, some 118 countries signed onto the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal. Enacted in 1992, the treaty was designed to better regulate the movement of hazardous waste between nations. Unfortunately, there were problems left unaddressed. For one, the convention did *not* prohibit waste exports to any location except Antarctica and instead merely required a notification and consent system known as "prior informed consent." As such, if a nation did consent to accept hazardous wastes for disposal but did not have the capacity to control and monitor such wastes in a safe and environmentally sound manner, then the prior informed consent rule was meaningless.⁹¹ In addition, a number of key nations, including the Ivory Coast and the United States, undermined the agreement by failing to ratify the main amendment to the Basel Convention. The convention also did not adequately address the dumping of toxic products and materials through industrial recycling programs. Nevertheless, despite these problems, the Basel Convention established a new international norm that views the export of hazardous wastes from the North to the South as an unacceptable act of ecological imperialism.

Immediately after the adoption of the Basel Convention, the international environmental movement and less developed countries went to work on overcoming its limitations. Over the course of the 1990s, their actions proved successful. The convention has subsequently been strengthened through the adoption of hundreds of decisions, a protocol, an amendment, and the amendment of annexes. Of these agreements, the Basel Ban is the most important, as it puts into place a global ban on the export of hazardous wastes from

members of the Organization for Economic Cooperation and Development (OECD) to non-OECD countries. It has, without question, in the words of the Basel Action Network, "transformed the Basel Convention from a control regime, to a no-exceptions, environmentally-justified trade barrier to hazardous waste."⁹²

Unfortunately, even as a nonparty, the United States has vociferously opposed improvements to the Basel Convention. In fact, since the very beginning of the Basel negotiations, both Republican and Democratic administrations alike have joined with the polluter-industrial complex to strongly oppose the concept of a no-exceptions waste trade ban. Furthermore, the United States is attempting to redefine what constitutes hazardous wastes, including efforts to avoid the Basel Convention for the management of end-of-life American ships or to delist certain types of electronic wastes. However, as long as the United States remains a nonparty, efforts to dismantle the Basel Ban against the wishes of the global community will probably fail. Instead, the likely plan of a hostile U.S. government is to selectively ratify the original agreement and then punch loopholes in the Basel Ban on behalf of industry from inside the Basel Convention apparatus. This approach not only attempts to turn back the clock on the regulation of hazards but also violates the principles of environmental justice that the federal government itself adopted with Clinton's executive order.

The Export of Hazardous Wastes from the United States

Although the traditional means of exporting toxic wastes from the advanced capitalist countries for final disposal in developing countries has slowed down since the adoption of the Basel Convention, the United States still exports hazardous waste abroad.⁹³ And while U.S. law regulates hazardous waste exports, it imposes fewer controls than the Basel Convention. In a recent incident, a U.S. chemical firm, HoltraChem Manufacturing, attempted to export 260,000 pounds of spent mercury waste from its Maine plant to India, already the largest recipient of mercury exports from the United States. Despite the negative publicity surrounding the sale, the U.S. government exempted the shipment from regulations on waste exports because it considered the metal to have "trade value." Nevertheless, the Indian government ultimately denied the shipment entry into the country and forced its return to the United States.⁹⁴

Thanks to the Basel Ban, many other countries are now unwilling to accept toxic waste from the United States. Instead, the United States has increasingly relied on Canada to receive toxic waste. Canada's hazardous waste laws are much less stringent and, in contrast to U.S. law, do not require treatment of

waste to reduce toxicity prior to disposal in landfills. Canada is therefore a lower-cost alternative for U.S. waste exporters. As a result, about 30 percent of all imported wastes from the United States in the late 1990s ended up in a landfill in Sarnia, Ontario, that was owned by the U.S. company Safety-Kleen.⁹⁵

NAFTA has figured into the export of hazards. Under Chapter 11, companies may sue governments for the expropriation of profits or actions that are tantamount to expropriation of profits, even in the case of environmental protection. For instance, S. D. Myers, a U.S. waste disposal company, won its challenge to a 1995 Canadian law banning the cross-border trade of PCBs. In this case, Canada claimed that the law on PCB waste was justified under the Basel Convention, but the NAFTA dispute panel did not accept this argument. Similarly, in a U.S.-threatened case before the WTO, Guatemala was forced to cancel a public health law that had forbidden infant formula companies, notably Gerber, from advertising their products as being healthier than breast milk. Infant death rates skyrocket for mothers using baby formula in the Third World because of the presence of bacteria and parasites in polluted water used to make the formula and because babies are denied the additional antibodies provided by breast milk to ward off illnesses stemming from polluted water. According to the World Health Organization, every year there are 1.6 million diarrheal deaths worldwide related to unsafe water—the vast majority among children under age five.

In another example of "cross deregulation," in August 2000 an international trade tribunal under the International Center for Investment Dispute Settlement (an arm of the World Bank) ruled that Mexico violated NAFTA's Chapter 11 investor provisions by not allowing California-based Metalclad Corporation to open a hazardous waste treatment and disposal site in San Luis Potosi, a state in central Mexico. Metalclad claimed that this action effectively expropriated its future expected profits. As a result, the Mexican government was ordered to pay the company \$16.7 million as compensation. In the early 1990s, Metalclad received approval from the Mexican federal government to build the disposal plant, which would handle up to 360,000 tons of hazardous waste a year. Outraged by the secret agreement, public protests against the facility ultimately compelled local governmental authorities to investigate the potential environmental impacts, which were determined to be severe. The governor then refused to open the facility and eventually declared the site part of a 600,000-acre ecological zone.

This case demonstrates the manner in which provisions under Chapter 11 are being utilized to directly sue sovereign governments when any investment is infringed on by environmental or worker health and safety regulations. NAFTA also utilizes international standards and rules that in many cases are

cannot US approach to international
limitations on capital.

weaker than U.S., Canadian, and even Mexican law and regulation. For example, the international food safety standard in the NAFTA is *Codex Alimentarius*, which allows residues on food of substances banned in the United States or Canada, such as DDT. Weaker environmental standards and enforcement become a part of the competitive advantage in this race to the bottom.⁹⁶ Mexico's maquiladoras have also proven to be an important front for smuggling in hazardous wastes from the United States. Wastes are often sent hidden as cargo on trucks and trains that cross the border into Mexico.⁹⁷ It is estimated that 285,000 tons of hazardous waste flow from the United States to Mexico each year.⁹⁸ Once inside the country, the chemicals are released into waterways, sewers, municipal landfills, unregulated landfills, and numerous private property sites.

When waste is not labeled as hazardous waste, it is very difficult to track and regulate. For instance, four U.S. companies once mixed 1,000 tons of hazardous waste (including lead and cadmium) into a shipment of fertilizer bound for Bangladesh. The fertilizer was applied to fields before the contamination was discovered. In another case, some 15,000 tons of toxic incinerator ash of U.S. origin was shipped to Guinea in the late 1980s under the label of brick building materials. This toxic waste was dumped on the Guinean Island of Kassa, just off the coast of the country's capital city, Conakry, by a Norwegian waste management firm. In a surreal land reclamation project, several U.S. companies even attempted to convince the Marshall Islands that imported wastes could be used to build up landmass to ensure that the islands would survive possible sea-level rises caused by global warming (the United States and China are the world's largest producers of greenhouse gases).⁹⁹

Recycling "Trash for Cash"

In the new millennium, a new wave of waste trade is developing in the form of various "trash for cash," or recycling schemes of postconsumer products. Loopholes in the rules allow waste transfers to legally continue under the auspices of recycling. These exported wastes take the form of used car (lead-acid) batteries, cell phones, plastics, heavy metals, old ships laden with asbestos, and lead scrap, shipped from the United States to southern China, India, Pakistan, the Philippines, Malaysia, and Taiwan for "recycling." In January 1993 alone, for instance, the United States sent over 1,985 tons of plastic waste to India.¹⁰⁰ These new types of waste products are becoming a far more serious form of toxic dumping in comparison to the export of toxic chemicals.

In the United States, the costs of emission control systems, liability insurance, and other environmental and occupational health regulatory safeguards associated with lead battery recycling facilities have skyrocketed. Mean-

while, the prices offered for secondary lead are so low that over half of North America's secondary lead smelters have gone out of business over the past two decades. In contrast, foreign smelters in the global South can afford to bid a higher price for scrap because their capital, labor, and environmental costs are much lower than those of U.S. producers. As a result, U.S. battery brokers are looking for higher profits by shipping lead-acid batteries to recycling facilities in Indonesia, the Philippines, Thailand, India, Brazil, South Korea, Mexico, and China. As early as the mid-1980s, for instance, the U.S. subsidiary of a Danish company, Bergsøe Metal Corporation went bankrupt and closed its lead battery recycling plant in St. Helens, Oregon. Today, Bergsøe operates a lead battery recycling plant in Suraburi, Thailand, where it receives thousands of pounds of battery scrap each year. The facility reportedly poisons the air, groundwater, and soil beyond the plant's property with lead and arsenic.¹⁰¹

Similarly, the city of Tianying in China is now ranked by the Blacksmith Institute as one of ten most polluted places in the world. Tianying is among the largest lead production bases in China. Studies have found average lead concentrations in the city's air and soil that are 8.5 times and ten times higher than allowed by national health standards. Over 140,000 people live in close proximity to the recycling plants, and elevated rates of health problems related to lead poisoning, such as brain damage, encephalopathy, learning disabilities, and impaired physical growth, are reported.¹⁰² The abundance of low-cost lead produced by the city's vast number of recycling facilities is then sold to corporations producing consumer goods for export back to the United States. Chinese factory owners and some multinational corporations look to maximize profits in intensely competitive markets by cutting safety corners and incorporating lead into their manufacturing processes. Paint with higher levels of lead, for instance, often sells for a third of the cost of paint with low levels. As we have seen, these lead compounds and paints are used to make toys, jewelry, and countless other products and eventually end up in the hands of American consumers.

Electronic waste (or e-waste) is perhaps the most rapidly growing waste problem in the world. According to the United Nations, about 20 million to 50 million tons of e-waste are generated worldwide annually. Such waste contains toxins like lead, mercury, and other chemicals that can poison waterways, the land, or air (if burned). The United States, which uses most of the world's electronic products and generates most of the e-waste, is able to significantly reduce disposal costs by shipping e-wastes to the developing countries. In addition to U.S. efforts to undermine the Basel Convention, the U.S. government has also intentionally exempted e-wastes from the Resource Conservation and Recovery Act.¹⁰³ In short, the export of e-waste to developing countries serves

as an economic escape valve for American industry. Rather than designing products that are less toxic and that can be more easily rebuilt and reused, American business maximizes profits by building products with very hazardous components with a short life span. Some 20 million computers become obsolete each year in the United States, generating some 5 million to 7 million tons of e-waste.¹⁰⁴

In the era of corporate-led globalization, toxic waste disposal is running "downhill" on the path of least resistance. About 80 percent of the e-waste handled by traders is exported to Asia, and 90 percent of that is destined for China, where environmental regulations are weak and poorly enforced. E-waste today contains a witches' brew of toxic substances such as lead and cadmium in circuit boards, lead oxide and cadmium in monitor cathode ray tubes, mercury in switches and flat-screen monitors, cadmium in computer batteries, PCBs in older capacitors and transformers, and brominated flame retardants on printed circuit boards, plastic casings, cables, and polyvinyl chloride cable insulation.¹⁰⁵

The open burning, acid baths, and toxic dumping that take place around recycling centers release vast quantities of pollution. In the Guiyu region of China, lead levels in drinking water are 2,400 times higher than what the World Health Organization considers to be safe. Similar environmental problems can be found in Indian and Pakistani recycling operations.¹⁰⁶ As in the United States, poor communities surrounding the plants bear the greatest health impacts from these operations.

GLOBALIZATION, UNEQUAL ECOLOGICAL EXCHANGE, AND ENVIRONMENTAL INJUSTICE

The Colonization of Nature in the South

The economic prosperity of American capitalism is dependent on the appropriation of surplus environmental space from the global South. A primary function of corporate-led globalization is to facilitate the importation of cheaper (with high quality/price ratios) consumer goods into the United States, which in turn cheapens the reproduction costs of labor power. As a result, living standards for American workers can systematically increase without a corresponding increase in actual money wages, thus preventing inflation and protecting the value of Wall Street assets. Aside from oil, where the Organization of Petroleum Exporting Countries (OPEC) has successfully restricted supplies and inflated prices in recent years, globalization is making available to the U.S. economy cheaper raw materials and energy supplies

from other nations. Because natural resources and energy serve as inputs for both the consumer and the capital goods industries, these lower costs become generalized throughout the economy as a whole. Corporate profits go up because the costs of labor power and manufacturing go down. In this respect, the expansion of American capitalism is becoming increasingly predicated on the consumption of ever-greater quantities of undervalued natural resources from the global South as well as the export of hazards to the developing world.

Over the past two decades and more, the United States has provided international aid packages and loans in order to promote the modernization and expansion of capitalist export agriculture, the extraction of renewable and nonrenewable resources, and industrial development in the global South. In addition, tens of billions of dollars have also been provided every year by the United States and the World Bank (and its regional counterparts) to finance the construction of roads, bridges, coal-fired and nuclear power plants, large dam and irrigation projects, and other infrastructure essential to the conversion of nature into capitalist private property.¹⁰⁷ *Commodification*

Laboring in the service of this new global order but receiving few of its benefits are the popular majorities of the developing world—the poor peasants, workers, ethnic minorities, and indigenous peoples who make up the subsistence sector. Unfortunately, international capital and the U.S. government favor the acquisition of land and natural resources by American corporations as well as large landowners, corrupt government officials and security forces, and various domestic economic elites allied with multinational corporations and U.S. banks. As a result, access to natural resources such as rivers, forests, and fisheries is being restricted by the transformation of these resources and subsistence-based ecosystems into capitalist private property. Utilizing financial assistance provided by multilateral lending agencies, large-scale development projects typically transfer access and control over natural sources from popular classes at the local level to the state, elite land speculators, or private companies (including many multinational corporations).¹⁰⁸ Those peoples in the South who draw their livelihood directly from communal access to land, water, forests, coastal mangroves, and other ecosystems are being the hardest hit by the construction of large dams, mining and oil industry operations, and the capitalization of agriculture and fisheries.¹⁰⁹ *Appropriation*

Displaced from their homelands by government policies, economic acquisition, or military force, the displaced masses of the global South migrate to ecologically fragile areas, including rugged hillsides prone to erosion, barren deserts regions lacking water, and pristine tropical rain forests. Once resettled, they try to eke out an existence by overexploiting the limited resource base to which they have access. After a few years of abuse, the resource base

G.R.

Appropriation

Forced Migration

eventually collapses, as in much of Central America. In the fragile highlands of El Salvador, for instance, hundreds of thousands of desperately poor family farmers displaced by the expansion of export coffee estates are attempting to survive in a landscape already irreversibly destroyed by erosion, gully formation, and deforestation. More than 77 percent of the country now suffers serious soil erosion.¹¹⁰ As a result, poverty is increasing dramatically throughout the country. This pattern of impoverishment is repeated in country after country throughout the global South. Of the world's population of about 6.5 billion, 58 percent are malnourished (compared with 20 percent of the world population in 1950).¹¹¹

Unable to support themselves off the land, many migrate to the cities to live in the vast ghettos surrounding the major cities, hoping to find work as cheap wage laborers in the burgeoning factories producing cheap consumer goods for export to the United States and other core countries. Lacking access to potable water, sewage and water treatment facilities, good jobs, adequate housing, and garbage disposal services, the living conditions in these urban areas are often horrendous. With 1.2 billion people lacking access to clean water and adequate sanitation worldwide, waterborne infections are spreading, killing millions of people each year. As these globalization-inspired development models become increasingly unviable, popular movements for social and ecological justice—an *environmentalism of the poor*—are developing all over the world.¹¹²

EJ movements in the global South encounter great resistance (and often repression) from the ruling power structure and the U.S. government. After all, social and ecological impoverishment of Third World people is advantageous for both domestic and foreign capital (including U.S. multinational corporations), as it functions to create a vast supply of cheap labor for the agricultural plantations, mining and logging operations, and manufacturing facilities producing shoes, electronics, toys, clothing, and countless other commodities for the world export market. Social struggles that disrupt the steady stream of cheap natural resource, energy, and consumer goods coming into America are treated as a threat to "national security" and likely to draw a harsh response from the U.S. government.¹¹³

Unequal Ecological Exchange and the Ecological Footprint of American Capitalism

Corporate-led globalization is exacerbating unequal trade relations between the United States and developing nations in both economic and ecological terms. Under ecological unequal exchange, the concrete and potential natural wealth found in energy and raw materials flow into the United States in much

Reprint of p. 273

greater proportion to the monetary (abstract) wealth that is returned (via international trade) to the global South. This occurs because physical wealth imported into the United States is "undervalued" in the world economy. With the dramatic expansion of U.S. FDI in export-oriented industries in the global South, most raw material producers (with the exception of oil-producing nations that are OPEC members) are engaged in fierce price competition with one another in the world market. Moreover, since giant transnational corporations (particularly U.S. multinational corporations engaged in intrafirm transfers) control the purchase and distribution of most agricultural products, raw materials, and consumer goods in the world market, Third World producers and domestic corporations typically exercise little control over global pricing mechanisms.

In order to compete, foreign producers must maximize exports by minimizing production costs, especially wages and "nonproductive" expenditures relating to environmental protection. The profits derived from foreign capital penetration are repatriated to the United States, where the FDI originated. The repatriation of profits serves to retard domestic economic development and increase inequality and poverty. As a result, corporate-led globalization reinforces a system of international trade that facilitates a net transfer of cheap energy and raw materials into the advanced capitalist countries at the ecological expense of the less developed countries. These imported resources are transformed into quantities of products vastly greater than the fraction that is returned to their peripheries. In this respect, "a reasonable market price conceals the fact that what is being exchanged are intact resources for products representing resources already spent."¹¹⁴ Increases in the U.S. gross national product are therefore directly linked to the expansion of deforestation, mining, energy development, and export agriculture in the poorer nations. That is a primary function of world trade policy.

Evidence of unequal ecological exchange in the world economy can be seen in the *ecological footprint* of the United States and other nations. The ecological footprint is a widely used tool for measuring and analyzing human natural resource consumption and waste output within the context of nature's renewable and regenerative capacity (biocapacity). It represents a quantitative assessment of the biologically productive area (the amount of nature in the form of croplands, pasture, fisheries, forests, and so on) required on a continuous basis to produce resources (food, energy, and materials) consumed by the population and to absorb the wastes that the population produces, wherever on earth that may be located. It therefore estimates human demand (or "load") on the earth in terms of the ecosystem area required to provide basic material support for any population.¹¹⁵ If a country's ecological footprint is within the annual regenerative capabilities of nature, it is a sustainable economy. However,

if a country exceeds ecological limits by using resources more quickly than they can be renewed—a process called *overshoot*—then the economy runs *ecological deficits* and is unsustainable. In this situation, the country's natural capital is drawn down and nature's absorptive sinks are swamped. This leaves less nature for future generations.

When the ecological footprint of a nation's economy is greater than the biophysical capacity of its territory, the country must either import that extra ecological capacity from other territories, reduce the consumption of resources, and/or continue to erode its own ecological capacity. There are currently 28.2 billion global acres of biologically productive land on the planet, covering roughly one-quarter of the earth's surface. The amount of global biocapacity available on a sustainable basis is estimated at about 38 acres per person. However, with the dramatic expansion of capitalist accumulation and world trade over the past three decades or more, the degradation and destruction of ecosystems around the world is accelerating. The actual average global ecofootprint now stands at a whopping fifty-four acres per person. As a result, the world capitalist system is exceeding the ecological limits of the planet by 39 percent, an ecological overshoot of about sixteen acres per person.¹¹⁶ The manifestation of ecological overshoot is overwhelming, as witnessed in the daily headlines surrounding pollution, land degradation, fisheries collapse, mass extinctions and lost biodiversity, deforestation, acute water shortages, expanding deserts, and spreading diseases.

Globalization is greatly enhancing processes of ecological unequal exchange, allowing the United States to dramatically expand the size of its ecological footprint on the rest of the world. Put another way, economic neoliberalism is enabling a net import of the global South's biocapacity as embodied in energy and natural resource flows. This is being accomplished through the drawdown (or consumption) of a stock of natural capital that resides outside the United States.¹¹⁷ In fact, the United States exceeds its biological capacities more than any other nation on earth, save for the United Arab Emirates and Kuwait.¹¹⁸ The differences between the United States and the global South are staggering. Africa, for one, has a population that is nearly 480 million people larger than the United States yet possesses a continental ecofootprint that is 3.95 billion acres smaller.¹¹⁹ The United States has a much larger global footprint (on a per capita basis) because Africa's consumption of natural resources and commodities produced by dirty industry is much lower. In fact, ecofootprints per capita in Africa are only 18.5 acres, compared to an incredible 270 acres in the United States. Even burgeoning China has an ecofootprint of only 30.8 acres.¹²⁰

Under corporate-led globalization, the United States is exporting excess ecological impacts to other countries through international trade. This process

also includes the displacement of pollution onto the global commons, such as the release of greenhouse gases that cause global warming. The carbon dioxide portion, for instance, accounts for approximately 50 percent of the U.S. total per capita footprint.¹²¹ Failing to curb greenhouse gases from the United States (and other countries) will eventually impact the global economy "on a scale of the Great Depression," according to a 2006 report by the British government. Authored by Sir Nicholas Stern, who heads Britain's Government Economic Services, the high-profile report estimates that the environmental devastation caused by global warming could cost between 5 and 20 percent of the world's gross domestic production.¹²²

The Stern report echoes what most climate scientists are predicting: that the melting or collapse of the ice sheets will eventually threaten land that is home to one in every twenty people, and that there will be hundreds of millions more people without sufficient water or food to survive. And while all countries will be affected, it is the poorest countries that will suffer earliest and most intensely, even though they have contributed least to the causes of climate change. The impacts of climate change will be especially devastating for the poorest people already living on the edge of survival in the global South. Given that climate change brings more severe storms and hurricanes of greater intensity, desertification and increased droughts, sea-level rise, more flooding and landslides, and other "natural" disasters, the International Red Cross/Red Crescent estimates that hundreds of million of ecological refugees will be created in the next fifty years. People affected by natural disasters in low-income countries are already four times more likely to die than those in high-income countries. Indeed, there are today more than 25 million ecological refugees in the world—people displaced by ecological degradation and natural disaster. And their numbers are growing by at least 5,000 per day. For the first time in history, more people are being displaced by environmental degradation than war.¹²³ Ecological disasters are becoming normative occurrences in the age of globalization.

The United States is somewhat insulated from some of the most severe forms of ecological degradation and disaster (Hurricane Katrina notwithstanding). This is so because American capitalism "imports" sustainability from the global South and thereby preserves a greater share of its own ecological capital in the process. In other words, the United States is better able to maintain stronger environmental protection measures inside the country because it consumes so much biomass and sink capacity that is produced outside the country.¹²⁴ Known as the "Netherlands fallacy," whereby a supposedly "green" society imports bioresources in order to preserve its own, the higher rates of ecological degradation in the global South are subsidizing the profits of U.S. corporations and the existing consumption patterns of American citizens.¹²⁵

Natural capital is not being significantly eroded because the ecological deficit of the United States is smaller than the sum of its net imports of biomass and of sink capacity (both measured in land area).¹²⁶ The importation of commodities produced via the superexploitation of nature and labor is the sine qua non of corporate-led globalization and the world capitalist system under the hegemony of the United States. Free trade and neoliberal economic policy is giving international capital or any other agent who is rich enough the power to decide how global biocapacity is to be used. And so far, the decision is clear. The world's ruling classes are depleting the earth's resources at the expense of the poorest segments of society as well as future generations.

As biomass throughout the world becomes scarcer—because of depletion or appropriation by other nations—*resource wars* (both large and small) are likely to increase, as seen in the U.S. war in Iraq over control of the country's vast oil reserves.¹²⁷ Countries with one or two primary export resources already have more than a one-in-five chance of civil war in any given year.¹²⁸ Pressures to increase exploitation of domestic biomass is also likely to become more intense as China begins to compete with the United States for foreign oil reserves and other resources. This is already occurring in the United States, as seen in the assault by both major political parties and the polluter-industrial complex on environmental regulations. This burden weighs particularly heavily on poor people of color as the impacts of resource exploitation and industrial pollution are shifted onto populations with less political-economic power. Hence, the growing ecological sacrifice and segregation (“ecoapartheid”) of the world's people along economic and racial lines have led to charges of environmental racism and calls for environmental justice in countries as economically and socially disparate as South Africa and the United States.

A BETTER WORLD IS POSSIBLE?

In the era of neoliberalism and corporate-led globalization, EJ movements in the both the United States and the global South have a mutual interest in developing coordinated strategies. The growing ability of multinational corporations and transnational financial institutions to evade environmental safeguards and worker/community health and safety regulations and to dismantle unions and the social safety net in the United States is being achieved by crossing national boundaries into politically repressive and economically oppressive countries. And in this context, abetted by “free-trade” agreements and economic liberalization enforced by the WTO, various nationalities and governments are increasingly being pitted against one another to attract cap-

ital investment by dismantling labor and environmental laws seen as damaging to profits. In this respect, corporate-led globalization is weakening the power of the EJ movement to win concessions from the state and American industry.

At the same time, any potential victory by a community of color in the United States against the disposal of toxic incinerator ash in their own locality is quite limited if the result is the transport and disposal of the same waste in a poor West African community. If multinational corporations flee to the Third World to avoid environmental regulations and liability in the North, then the actions of U.S. environmentalists may be indirectly exacerbating environmental injustices elsewhere in the world.¹²⁹ Stringent environmental standards must be applied to all nations in order to foster global environmental justice. A reworking of established “free-trade” agreements in favor of more positive “fair-trade” agreements are an important first step in the struggle to defeat neoliberal economic policy. Such a “fair-trade” agreement would establish minimum standards, or “floors,” for regulations rather than “ceilings.” In other words, rather than a “race to the bottom” whereby the nation with the weakest environmental regulations sets the standard “ceiling” that all trading partners must accept, a transnational EJ movement must work for a series of mandatory strong standards that apply to all nations. Such a regulatory harmonization process would privilege nations with the strictest environmental laws as establishing a standard “floor” to which all other countries must comply if trade is to be conducted between them.¹³⁰

A word of caution, however, to the adoption of narrow liberal policy prescriptions. The implementation of new international agreements and treaties to address the environmental injustices fostered by corporate-led globalization cannot be piecemeal in approach. Strong baseline standards around particular issues is not enough. Agreements must be comprehensive in nature, taking into account *all* the interconnected processes by which ecological hazards are displaced and transferred between countries and especially between the North and South. For instance, in response to the Basel Convention (and Basel Ban), there is evidence that as dirty industries are deterred from exporting hazardous wastes abroad, many factories are relocating from their home bases in the United States to more permissive investment locations in the poorer countries. Once relocated, industry is able to take advantage of the less stringent environmental regulations to more cheaply dispose of hazardous waste directly inside the new country. As a result, the intent of the Basel Ban will be defeated.

Unless comprehensive international rules are also put into place to govern FDI in “toxic” industries, hazardous wastes may still wind up in other

countries via this alternative route. The migration of dirty industries to maquiladora zones in Mexico is a strong example of the migration process.¹³¹ Regulating the export of hazards must be comprehensive in scope. As we shall see in chapter 5, there are signals that a new transnational EJ movement devoted to tackling the export of ecological hazards to poor communities of color inside and outside the United States is beginning to take shape. The Southwest Network for Economic and Environmental Justice and the Environmental Health Coalition, for instance, are placing pressure on multinational corporations and government agencies to clean up pollution along the U.S.–Mexico border. In addition, a coalition of Canadian, U.S., and Mexican organizations has successfully expanded right-to-know legislation in Mexico, including the establishment of a Pollutant Release and Transfer Register that is similar to those in Canada and the United States.¹³² Although still in its infancy, the rise of an environmentalism of the poor in the global South and new transnational networks of EJ organizations in the North are among the most promising vehicles for curbing the ecological horror stories brought about by corporate-led globalization.

In the short run, only by achieving greater social governance over trade and lending institutions and regulatory bodies can the process that leads different countries to sacrifice human and environmental health in order to compete in the world economy be overcome. This includes efforts to reestablish popular control over the United Nations as a counterweight to the WTO.¹³³ There is no doubt that we are witnessing a profound antidemocratic counterrevolution in which globalization and its neoliberal imperatives are being used by capital to weaken popular and elected authority. Therefore, the fight for environmental justice and sustainable development must involve strategies to democratize the national and international institutions that shape world policy. These institutions, including transnational corporations and large banks, the International Monetary Fund and the World Bank, the United Nations, and the General Agreement on Tariffs and Trade, must be opened up to greater public participation in decision making.¹³⁴ The antiglobalization movement, in the form of the International Forum on Globalization, has prepared alternative proposals for building a more just and sustainable international system that ends corporate dominance over the world economy. These proposals include a system of unified global economic governance under a restructured United Nations.¹³⁵ In the long run, however, even larger transformations are necessary. Successfully challenging the instruments of neoliberal globalization will require opposing U.S. imperialism and the system of global capitalism itself.¹³⁶ Absent a post-capitalist future devoted to substantive social equality and sustainable development, the global ecological crisis is destined to deepen.¹³⁷

NOTES

1. Pam Woodall, "The Global Economy: War of the Worlds," *The Economist* (October 1, 1994), 36.
2. John Bellamy Foster and Brett Clark, "Ecological Imperialism: The Curse of Capitalism," in *Socialist Register 2004: The New Imperial Challenge*, ed. Leo Panitch and Colin Leys (London: Merlin Press, 2003), 186–201; Aurora Donoso, "No More Looting! Third World Owed an Ecological Debt" (2000), available at http://www.cosmovisions.com/DeudaEcologica/a_looting.html (accessed March 6, 2003).
3. Joan Martinez-Alier, "Marxism, Social Metabolism, and International Trade," in *Rethinking Environmental History: World-System History and Global Environmental Change*, ed. Alf Hornborg, J. R. McNeill, and Joan Martinez-Alier (Lanham, MD: AltaMira Press, 2007), 221–38, esp. 233.
4. Air pollution alone kills 3 million people a year. These figures come from an upcoming report by Cornell University Professor David Pimentel and a research team that examined more than 120 published papers on malnutrition and environmental degradation. Their findings will be presented in the December 2008 issue of *Human Ecology*.
5. Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Synthesis Report* (Washington, DC: Island Press, 2005).
6. World Health Organization, *The World Health Organization's Fight against Cancer: Strategies That Prevent, Cure, and Care* (Geneva: WHO Press, 2007).
7. J. Timmons Roberts and Bradley C. Parks, *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy* (Cambridge, MA: MIT Press, 2007).
8. James O'Connor, "House Organ," *Capitalism, Nature, Socialism* 11, no. 3 (2000): 162–73.
9. Kenny Bruno and Joshua Karliner, *Earthsummit.biz: The Corporate Takeover of Sustainable Development* (Oakland, CA: Food First Books, 2002), 8.
10. Joshua Karliner, *The Corporate Planet: Ecology and Politics in the Age of Globalization* (San Francisco: Sierra Club Books, 1997), 5; Bruno and Karliner, *Earthsummit.biz*, 8; United Nations, *World Investment Directory: Latin America and the Caribbean* 9, pts. 1 and 2 (New York: United Nations Conference on Trade and Development, 2004), iii.
11. Leo Panitch and Sam Gindin, "Superintending Global Capital," *New Left Review* 35 (September/October 2005): 101–23, esp. 113–15.
12. Associated Press, "Oil Imports Push Up US Trade Gap: Retailers Post Weak Sales Figures in April," *Boston Globe* (May 11, 2007), C2.
13. C. Fred Bergsten, "The Current Account Deficit and the US Economy," testimony before the Budget Committee of the United States Senate (February 1, 2007), 1–5, available at <http://www.iie.com/publications/prinit.cfm?doc=pub&ResearchID=705> (accessed May 16, 2007).
14. O'Connor, "House Organ."
15. Bruno and Karliner, *Earthsummit.biz*, 9.

16. Walden Bello, "The Capitalist Conjuncture: Overaccumulation, Financial Crises, and the Retreat from Globalization," *Third World Quarterly* 27, no. 8 (2006): 7; Walden Bello, "The Post-Washington Dissensus" (Washington, DC: Foreign Policy in Focus, September 24, 2007), 1-3.
17. Excerpts from a December 12, 1991, internal memo by Lawrence Summers that was leaked to the press in 1992. Summers was at the time the chief economist at the World Bank. Summers would later become U.S. treasury secretary under the Clinton administration and a major figure in organizing international trade arrangements.
18. John Bellamy Foster, "Let Them Eat Pollution: Capitalism in the World Environment," in *Ecology Against Capitalism* (New York: Monthly Review Press, 2002), 60-68.
19. Francis O. Adeola, "Cross-National Environmental Injustice and Human Rights Issues: A Review of Evidence in the Developing World," *American Behavioral Scientist* 43, no. 4 (2000): 686-706, esp. 691.
20. Kate O'Neill, *Waste Trading among Rich Nations: Building a New Theory of Environmental Regulation* (Cambridge, MA: MIT Press, 2000); Barry Castleman and Vicente Navarro, "International Mobility of Hazardous Products, Industries, and Wastes," *Annual Review of Public Health* 8 (May 1987): 1-19.
21. R. Scott Frey, "The Transfer of Core-Based Hazardous Production Processes to the Export Processing Zones of the Periphery: The *Maquiladora* Centers of Northern Mexico," *Journal of World-Systems Research* 9, no. 2 (Summer 2003): 317-54.
22. James K. Jackson, "Foreign Direct Investment: Effects of a 'Cheap' Dollar," *CRS Report for Congress*, no. RS43000 (May 11, 2007), 1-14.
23. Jennifer Clapp, *Toxic Exports: The Transfer of Hazardous Wastes from Rich to Poor Countries* (Ithaca, NY: Cornell University Press, 2001), 109-10.
24. Robert Lucas, David Wheeler, and Hemamala Hettige, "Economic Development, Environmental Regulation, and the International Migration of Toxic Industrial Pollution, 1960-88," *Policy Research Working Papers*, WPS 1602 (Washington, DC: World Bank, 1992), 14.
25. Hans Christiansen and Ayse Bertrand, "Trends and Recent Developments in Foreign Direct Investment," a report by the OECD Directorate for Financial and Enterprise Affairs (June 2004), 1-24.
26. Martin Hart-Landsberg and Paul Burkett, "China, Capitalist Accumulation, and Labor," *Monthly Review* 59, no. 1 (May 2007): 17-39.
27. Pete Engardio and Dexter Roberts, "The Three Scariest Words in U.S. Industry: The China Price," *BusinessWeek* (December 6, 2004): 104-12.
28. Joseph Kahn and Jim Yardley, "Amid China's Boom, Pollution Reaches Deadly Extremes," *Boston Globe* (August 26, 2007), A9.
29. World Bank, *The Cost of Pollution in China: Economic Estimates of Physical Damages*, a report prepared by the World Bank and State Environmental Protection Administration, People's Republic of China (2007), 1-111.
30. Jim Jubak, "How Long Can China Pollute for Free?," *Jubak's Journal* (February 9, 2007), 1-8; Elizabeth C. Economy, *The River Runs Black: The Environmental Challenge to China's Future* (Ithaca, NY: Cornell University Press, 2004).

31. World Bank, *The Cost of Pollution in China*, 1-111.
32. Jubak, "How Long Can China Pollute for Free?," 1-8.
33. Blacksmith Institute, *The World's Most Polluted Places: The Top Ten of the Dirty Thirty*, a report prepared by the Blacksmith Institute (September 2007).
34. World Bank, *The Cost of Pollution in China*.
35. Tim Johnson, "Environment: A Social Issue—Bad Air and Toxic Water Spark Protests and Reflect Political Conflicts," *Philadelphia Inquirer* (November 25, 2005), A1, A18.
36. Michael Watts, "Violent Environments: Petroleum Conflict and the Political Ecology of Rule in the Niger Delta, Nigeria," in *Liberation Ecologies: Environment, Development, Social Movements*, 2nd ed., ed. Richard Peet and Michael Watts (New York: Routledge, 2004), 273-98.
37. Report by Lucinda Low on FCPA prosecutions, May 5, 2006. *United States v. ABB Vetco Gray, Inc. and ABB Vetco Gray UK, Ltd.* (case no. 04-CV-279-01) (S.D. Tex. July 2004); SEC Accounting and Auditing Enforcement Release No. 2049 (July 6, 2004); Davi Leigh and David Pallister, "Revealed: The New Scramble for Africa," *Guardian Unlimited* (June 1, 2005), available at <http://www.guardian.co.uk/hear-africa05/story/0,15756,1496561,00.html> (accessed October 10, 2007).
38. Peter Maass, "A Touch of Crude," *Mother Jones* (January-February 2005), 49-53, 86-89.
39. Watts, "Violent Environments," 273-98.
40. Amnesty International USA, *Environmentalists under Fire: 10 Urgent Cases of Human Rights Abuses* (Washington, DC: Amnesty International USA and the Sierra Club, 2000), 22-23.
41. Joshua Hammer, "Nigeria Crude: A Hanged Man and an Oil-Fouled Landscape," *Harper's* (June 1996), 68, cited in Karliner, *The Corporate Planet*, 86.
42. Derrick Z. Jackson, "The Iraq War and America's Oil Addiction," *Boston Globe* (April 11, 2003), A23.
43. Ken MacLean, *Capitalizing on Conflict: How Logging and Mining Contribute to Environmental Destruction in Burma*, a report by EarthRights International with Karen Environmental and Social Action Network (October 2003), 1-72.
44. Kenny Bruno, "Halliburton's Destructive Engagement: How Dick Cheney and USA-Engage Subvert Democracy at Home and Abroad," *Corporate Watch Report* (October 11, 2000), available at <http://corpwatch.org/feature/elections/halliburton.html> (accessed October 12, 2000), 1-3.
45. Dan Eggen and Charles Lane, "Bush Seeks to Restrict Foreign Nationals' Suits," *Boston Globe* (June 2, 2003), A5.
46. Amnesty International USA, *Environmentalists under Fire*, 3.
47. Jeffrey Leonard, *Are Environmental Regulations Driving US Industry Overseas?* (Washington, DC: Conservation Foundation, 1985), 155.
48. Jorg Janischewski, Mikael P. Henzier, and Walter Kahlenborn, *The Export of Second-Hand Goods and the Transfer of Technology: An Obstacle to Sustainable Development in Developing Countries and Emerging Markets?* (Berlin: German Council for Sustainable Development and Adelphi Research, May 2003), 29.

49. ESCAP/UNCTC, *Environmental Aspects of Transnational Corporation Activities in Pollution-Intensive Industries in Selected Asian and Pacific Developing Countries* (Bangkok: UN/ESCAP, 1990), 61.
50. William Bogard, *The Bhopal Tragedy: Language, Logic, and Politics in the Production of Hazard* (San Francisco: Westview Press, 1989); David Weir, *The Bhopal Syndrome: Pesticide Manufacturing and the Third World* (Penang, Malaysia: International Organization of Consumers Unions, 1986).
51. Cited in Larry Everest, *Behind the Poison Cloud: Union Carbide's Bhopal Massacre* (Chicago: Banner Press, 1985), 313.
52. Frey, "The Transfer of Core-Based Hazardous Production Processes to the Export Processing Zones of the Periphery," 317-54.
53. U.S. General Accounting Office, *U.S.-Mexico Trade: Some U.S. Wood Furniture Firms Relocated from the Los Angeles Area to Mexico* (Washington, DC: U.S. General Accounting Office, 1991).
54. D. M. Perry, Roberto Sanchez, and William H. Glaze, "Binational Management of Hazardous Waste: The Maquiladora Industry in the US-Mexico Border," *Environmental Management* 14 (1998): 441.
55. Clapp, *Toxic Exports*, 116.
56. J. P. Ross, "Sempra: Exporting Pollution," *Corpwatch Report* (May 27, 2002), 1-5.
57. Robert A. Sanchez, "Health and Environmental Risks of the Maquiladora in Mexicali," *Natural Resources Journal* 30 (Winter 1990): 163-70.
58. R. Scott Frey, "The Hazardous Waste Stream in the World-System," in *The Environment and Society Reader*, ed. R. Scott Frey (Boston: Allyn and Bacon, 2001), 106-20.
59. Kevin P. Gallagher, "Is NAFTA Working for Mexico?," *Environmental Forum* (May/June 2006), 21-27.
60. Gallagher, "Is NAFTA Working for Mexico?," 26.
61. Kevin Gallagher, *Trade Liberalization and Industrial Pollution in Mexico: Lessons for FTAA*, Global Development and Environment Institute working paper no. 00-07 (October 2000).
62. Gallagher, "Is NAFTA Working for Mexico?," 21-27.
63. Kevin Gallagher, *Free Trade and the Environment: Mexico, NAFTA, and Beyond* (Palo Alto, CA: Stanford University Press, 2004).
64. Janischewski et al., *The Export of Second-Hand Goods and the Transfer of Technology*.
65. Maria Cramer, "US Castoffs Resuming Dirty Career: Old Plants, Buses Are Sold to Poorer Nations," *Boston Globe* (August 19, 2007), A1, A22.
66. Janischewski et al., *The Export of Second-Hand Goods and the Transfer of Technology*, iv.
67. Joshua Karliner, "The Environmental Industry," *Ecologist* 24, no. 2 (1994): 60-61.
68. These findings come from a special issue of the *International Journal of Occupational and Environmental Health* 7, no. 4 (2002), and summarized in the Pesticide Action Network Updates Service, "US Pesticide Exports Remain High" (January

- 11, 2002), available at http://www.panna.org/resources/panups/panup_20020111.dv.html (accessed September 15, 2007), 1-2.
69. Foundation for Advancements in Science and Education, *Exporting Risk: Pesticide Exports from US Ports, 1995-1996* (Los Angeles: Foundation for Advancements in Science and Education, 1998), 1-18; Carl Smith, "US Pesticide Traffic—Exporting Banned and Hazardous Pesticides," *Global Pesticide Campaigner* 3, no. 3 (1993): 1.
70. Kristin S. Schafer, "One More Failed U.S. Environmental Policy," *Foreign Policy in Focus* (September 6, 2006), 1-6.
71. "U.N. Human Rights Investigator Deems U.S. Export of Banned Pesticides 'Immoral,'" *Common Dreams Progressive Newswire* (December 17, 2001), available at <http://www.commondreams.org/news2001/1217-03.htm> (accessed September 15, 2007), 1-2.
72. Foundation for Advancements in Science and Education, *Exporting Risk*, 1.
73. Flemming Konradsen, "Acute Pesticide Poisoning—A Global Public Health Problem," *Danish Medical Bulletin* 54, no. 1 (February 2007): 58-59.
74. Edward Groth III, Charles M. Benbrook, and Karen Lutz, *Do You Know What You're Eating? An Analysis of US Government Data on Pesticide Residues in Foods*, a report by the Consumers Union (February 1999).
75. Environmental Working Group, *Forbidden Fruit: Illegal Pesticides in the US Food Supply* (Washington, DC: Environmental Working Group, February 1, 1995), 2.
76. Rick Weiss, "Chinese Exports Drawing Scrutiny: Push On to Address Food Safety Issues," *Boston Globe* (May 21, 2007), A2.
77. Diedra Henderson, "Food Imports Seldom Checked: Odds Favor Rogue Producers over Underfunded, Understaffed FDA, Critics Say," *Boston Globe* (May 1, 2007), C1, C5.
78. Kristin S. Schafer, Susan E. Kegley, and Sharyle Patton, *Nowhere to Hide: Persistent Toxic Chemicals in the U.S. Food Supply* (San Francisco: Pesticide Action Network North America, March 2001), 8, 21-23.
79. Environmental Working Group, *Forbidden Fruit*, 3.
80. Schafer et al., *Nowhere to Hide*, 24.
81. For a discussion of the 2004 CDC report, see Kristin S. Schafer, Margaret Reeves, Skip Spitzer, and Susan E. Kegley, *Chemical Trespass: Pesticides in Our Bodies and Corporate Accountability*, a report by the Pesticide Action Network North America (May 2004).
82. Henderson, "Food Imports Seldom Checked."
83. Mark Magnier, "Food Safety Head's Execution in China Stirs Internet Cheers," *Boston Globe* (July 12, 2007), A15.
84. Robert Gavin, "In Low-Priced Imports, Worrisome Costs," *Boston Globe* (August 3, 2007), A1, A10.
85. Jenn Abelson, "Safety Recalls Linked to China Could Hurt Holiday-Season Sales," *Boston Globe* (August 25, 2007), C1, C4.
86. Gordon Fairclough, "China: Lead Toxins Take a Global Round Trip," *Wall Street Journal* (July 12, 2007), A1.

87. R. Scott Frey, "The Transfer of Core-Based Hazardous Production Processes to the Export Processing Zones of the Periphery," and "The Hazardous Waste Stream in the World System," 109.
88. Segun Gbadegesin, "Multinational Corporations, Developed Nations, and Environmental Racism: Toxic Waste, Oil Exploration, and Eco-Catastrophe," in *Faces of Environmental Racism: Confronting Issues of Global Justice*, 2nd ed., ed. Laura Westra and Bill E. Lawson (Lanham, MD: Rowman & Littlefield, 2001), 187–202, esp. 190.
89. Gbadegesin, "Multinational Corporations, Developed Nations, and Environmental Racism," 190.
90. Lydia Polgreen and Marlise Simons, "Global Sludge Ends in Tragedy for Ivory Coast," *New York Times* (October 2, 2006), available at <http://www.nytimes.com/2006/10/10/02/world/africa/02ivory.html> (accessed September 12, 2007).
91. Frey, "The Hazardous Waste Stream in the World System," 115.
92. Basel Action Network, "The US Must Ratify the Entire Basel Convention (or Not at All)," Briefing Paper no. 2 (September 2007), 1–2.
93. Mary Tiemann, "Waste Trade and the Basel Convention: Background and Update," Committee for the National Institute for the Environment (December 30, 1998), 1–4.
94. Jennifer Clapp, "Seeping through the Regulatory Cracks," *SAIS Review* 22, no. 1 (Winter–Spring 2002): 146.
95. Clapp, "Seeping through the Regulatory Cracks," 146–49.
96. Jim Puckett, *When Trade Is Toxic: The WTO Threat to Public and Planetary Health*, a report by the Asia Pacific Environmental Exchange and the Basel Action Network (1999), 1–33.
97. "Enforcement Actions Taken against Polluters on U.S.-Mexico Border," *EPA Environmental News* (June 3, 1992).
98. Cyrus Reed, Marisa Jacott, and Alejandro Villamar, *Hazardous Waste Management in the United States–Mexico Border States: More Questions Than Answers*, a report by the Red Mexicana de Accion Frente al Lebre Comercio and the Texas Center for Policy Studies (March 2000), 34.
99. Greenpeace USA, *Pacific Waste Invasion* (Washington, D.C.: Greenpeace, 1992).
100. Anne Leonard, "South Asia: The New Target of International Waste Traders," *Multinational Monitor* 14 (December 1993): 21–24, esp. 22.
101. Madeleine Cobbing and Simon Divecha, "The Myth of Automobile Recycling," *Greenpeace Report* (1993), available at <http://www.things.org/~jym/greenpeace/myth-of-battery-recycling.html> (accessed September 12, 2007).
102. Blacksmith Institute, *The World's Most Polluted Places*, 13–14.
103. Jim Puckett, Leslie Byster, Sarah Westervel, Richard Gutierrez, Sheila Davis, Asthma Hussain, and Madhumitta Dutta, *Exporting Harm: The High-Tech Trashing of Asia*, a report by the Basel Action Network and the Silicon Valley Toxics Coalition (February 25, 2002).
104. National Safety Council, *Electronic Product Recovery and Recycling Baseline Report* (Washington, DC: National Safety Council, 1999).
105. Puckett et al., *Exporting Harm*, 6–9.

106. Puckett et al., *Exporting Harm*, 9, 22.
107. Bruce Rich, *Mortgaging the Earth: The World Bank, Environmental Impoverishment, and the Crisis of Development* (Boston: Beacon Press, 1994).
108. Vandana Shiva, *Staying Alive: Women, Ecology, and Development* (London: Atlantic Highlands, NJ: Zed Books, 1998).
109. Ramachandra Guha, *Environmentalism: A Global History* (New York: Longman, 2000).
110. Faber, *Environment under Fire*, 45–82.
111. Cornell University Professor David Pimentel and a research team examined more than 120 published papers on malnutrition and environmental degradation. Their findings will be presented in the December 2008 issue of *Human Ecology*.
112. Joan Martinez-Alier, *The Environmentalism of the Poor: The Study of Ecological Conflicts and Valuation* (Northampton, MA: Edward Elgar, 2002).
113. John Bellamy Foster and Robert W. McChesney, eds., *Pox Americana: Exposing the American Empire* (New York: Monthly Review Press, 2004).
114. Alf Hornborg, "Towards an Ecological Theory of Unequal Exchange: Articulating World System Theory and Ecological Economics," *Ecological Economics* 25 (1998): 127–36.
115. Nicky Chambers, Craig Simmons, and Mathis Wackernagel, *Sharing Nature's Interests: Ecological Footprints as an Indicator of Sustainability* (London: Earthscan, 2000), 31.
116. Jason Venetoulis and John Talberth, *Ecological Footprint of Nations: 2005 Update* (Oakland, CA: Redefining Progress, 2005), 7–8.
117. Paul H. Templet, "Externalities, Subsidies and the Ecological Footprint: An Empirical Analysis," *Ecological Economics* 32 (2000): 381–83.
118. Venetoulis and Talberth, *Ecological Footprint of Nations*, 8.
119. Jason Venetoulis, Dahlia Chazan, and Christopher Gaudet, *Ecological Footprint of Nations 2004* (Oakland, CA: Redefining Progress, March 2004), p.7.
120. Craig R. Humphrey, Tammy L. Lewis, and Frederick H. Buttel, *Environment, Energy, and Society: A New Synthesis* (Belmont, CA: Wadsworth, 2002), 100.
121. Andrew K. Jorgenson, "Consumption and Environmental Degradation: A Cross-National Analysis of the Ecological Footprint," *Social Problems* 50, no. 3 (2003): 387.
122. Nicholas Stern, *Stern Review: The Economics of Climate Change* (Cambridge: Cambridge University Press, 2006).
123. Red Cross and Red Crescent Societies, *World Disasters Report: Focus on Recovery* (Geneva: International Federation of Red Cross and Red Crescent Societies, 2001).
124. Andersson and Lindroth, "Ecologically Unsustainable Trade," 113–22.
125. Jorgenson, "Consumption and Environmental Degradation," 377.
126. Andersson and Lindroth, "Ecologically Unsustainable Trade," 116.
127. Michael Klare, "The New Geopolitics," in Foster and McChesney, *Pox Americana*, 51–56.
128. Paul Collier and Anke Hoeffler, "Greed and Grievance in Civil War," *Oxford Economic Papers* (October 2004), cited in William K. Tabb, "Resource Wars," *Monthly Review* 58, no. 8 (January 2007): 32–42.

129. Adeola, "Cross-National Environmental Justice and Human Rights Issues," 703.
130. Mark Ritchie, "Trading Away the Environment: Free-Trade Agreements and Environmental Degradation," in *Toxic Struggles: The Theory and Practice of Environmental Justice*, ed. Richard Hofrichter (Philadelphia: New Society Publishers, 1993), 209–18.
131. Clapp, "Seeping through the Regulatory Cracks," 141–55.
132. Talli Nauman, "Mexico's Right-to-Know Movement," *Citizen Action in the Americas* (February 2003), cited in Frey, "The Transfer of Core-Based Hazardous Production Processes," 338–41.
133. Karliner and Bruno, *Earthsummit.biz*, 2002.
134. Martin Khor Kok Peng, "Economics and Environmental Justice: Rethinking North-South Relations," in Hofrichter, *Toxic Struggles*, 219–25.
135. International Forum on Globalization, *Alternatives to Economic Globalization: A Better World Is Possible* (San Francisco: Berrett-Koehler Publishers, 2002).
136. John Bellamy Foster, "Monopoly Capital and the New Globalization," *Monthly Review* 53, no. 8 (January 2002): 1–16.
137. James O'Connor, *Natural Causes: Essays in Ecological Marxism* (New York: Guilford Press, 1998); Istvan Meszaros, "Sustainable Development and Equality," *Monthly Review* 53, no. 7 (December 2001): 10–19.

Chapter Five

Transforming Green Politics: Challenges Confronting the Environmental Justice Movement

This struggle emerging from the environmental experience of oppressed people brings forth a new consciousness . . . to make a true connection between humanity and nature. This struggle to resolve environmental problems may force the nation to alter its priorities; it may force the nation to address issues of environmental justice and, by doing so, it may ultimately result in a cleaner and healthier environment for all of us.

—Bunyan Bryant¹

A DEEPER SHADE OF GREEN POLITICS

In the United States, communities of color and lower-income neighborhoods are historically the hardest hit by pollution from industrial factories and incinerators, the illegal dumping of chemical wastes on vacant lots, lead contamination in building materials, a lack of parklands and other environmental amenities, and decrepit housing, schools, and public transportation. Yet these neighborhoods and the organizations that represent them typically possess few resources to confront these threats. These injustices are not so much the failing of technology or the law as they are the product of the political marginalization of people of color and working-class families. Moreover, with the corporate assault on the liberal regime of environmental regulation and environmental justice (EJ) policy, racial and class-based disparities in the exposure to ecological hazards are intensifying. Unfortunately, despite some initiatives of the Sierra Club, Friends of the Earth/Environmental Policy Institute, the Natural Resources Defense Council, and the Wilderness Society, the mainstream environmental movement largely ignores the interconnections among poverty, racism, social injustice, and environmental policy.