

Toxic Terrorism

A Crisis in Global Waste Trading

Marthe Sende

On August 31, 1986, the vessel Khian Sea left the shores of Philadelphia, Pennsylvania for the Bahamas. Although headed for warmer waters, this vessel was no cruise ship. Instead, its passengers were 13,000 tons of toxic incinerator ash produced by the city. Attempts to unload its goods on the Caribbean Island were to no avail; the Bahamian government refused to accept the toxic cargo, forcing the Khian Sea to find an alternate location. For two years, the vessel drifted around the Pacific Ocean, until it finally ended up in Haiti. Dupliciously labeling its cargo as fertilizer ash, the vessel unceremoniously dumped 3,000 tons of the toxic substance on the shores of the island. Before it could unload the rest, the government of Haiti caved into national protest and ordered the ship to leave the country. By November 26, 1989, the vessel had changed its name to Pelicano and arrived on the shores of Singapore. It was empty.¹

Following the late 1970s environmental disasters at Seveso, Italy and Love Canal, New York, many industrialized nations progressively adopted a “Not In My Back Yard” (NIMBY) stance toward waste disposal that dramatically changed the movement of toxic waste across the globe. Coupled with growing costs and population growth, developed countries began to feel pressure to dispose of their waste in cheaper locations. Also known as “toxic terrorism,” the unethical and illegal dumping of hazardous waste in poor countries created a public backlash in the Southern Hemisphere in the 1980s.² In the twenty-first century, this problem continues to rear its ugly head. As recently as 2006, citizens of Abidjan, Ivory Coast became the unwitting victims of a toxic waste disposal scheme, which cost at least ten people their lives and injured several thousand others.³

As global consumption rises, it is increasingly outpacing our capacity to dispose of our waste properly. Despite rapid growth in technology and industry, many countries are unable to keep up with their trash and this snowballing problem threatens to have far-reaching human and environmental costs.

THE SCOPE OF THE PROBLEM

The rise in economic development in industrialized nations has resulted in many benefits for the global population. Advances in technology and the arrival of globalization have improved the quality of life for many throughout the world. However, these advances have come at a steep cost to the environment and to the health of millions worldwide.

Since 1940, the amount of industrial waste produced worldwide has increased from 10 million tons to more than 400 million tons per year.⁴ The United States, which consumes a third of the world's resources, is by far the largest producer of waste, generating over 275 million tons a year.⁵ In effect, waste disposal has become a booming industry on both national and global scales.

The primary actors in the waste management industry are the generators, importers, and exporters of waste.⁶ Industrialized nations generally export their waste to other industrialized nations, primarily because neighboring countries may have facilities capable of handling the waste that are closer than national facilities or may hold the only facility capable of processing a certain type of waste properly.⁷ For example, 75 percent of waste exported from the U.S. is transported to Canada, and vice versa.⁸

The processes involved in waste management are reclamation and recycling, bulking and packaging, land filling, and finally, incineration.⁹ However, hazardous or toxic wastes—such as polychlorinated benzenes (PCBs), radioactive materials, pesticides, mercury, and other toxic compounds—are becoming increasingly difficult to dispose of due to ever-tightening environmental regulations in industrialized nations.¹⁰

Inflation and the rising costs of production—along with restrictive environmental regulations that are largely spurred by the NIMBY syndrome—have led to exorbitant increases in waste disposal prices.¹¹ For instance, the cost of dumping toxic materials in landfills in the U.S. rose from \$15 per ton in 1980 to \$250 by

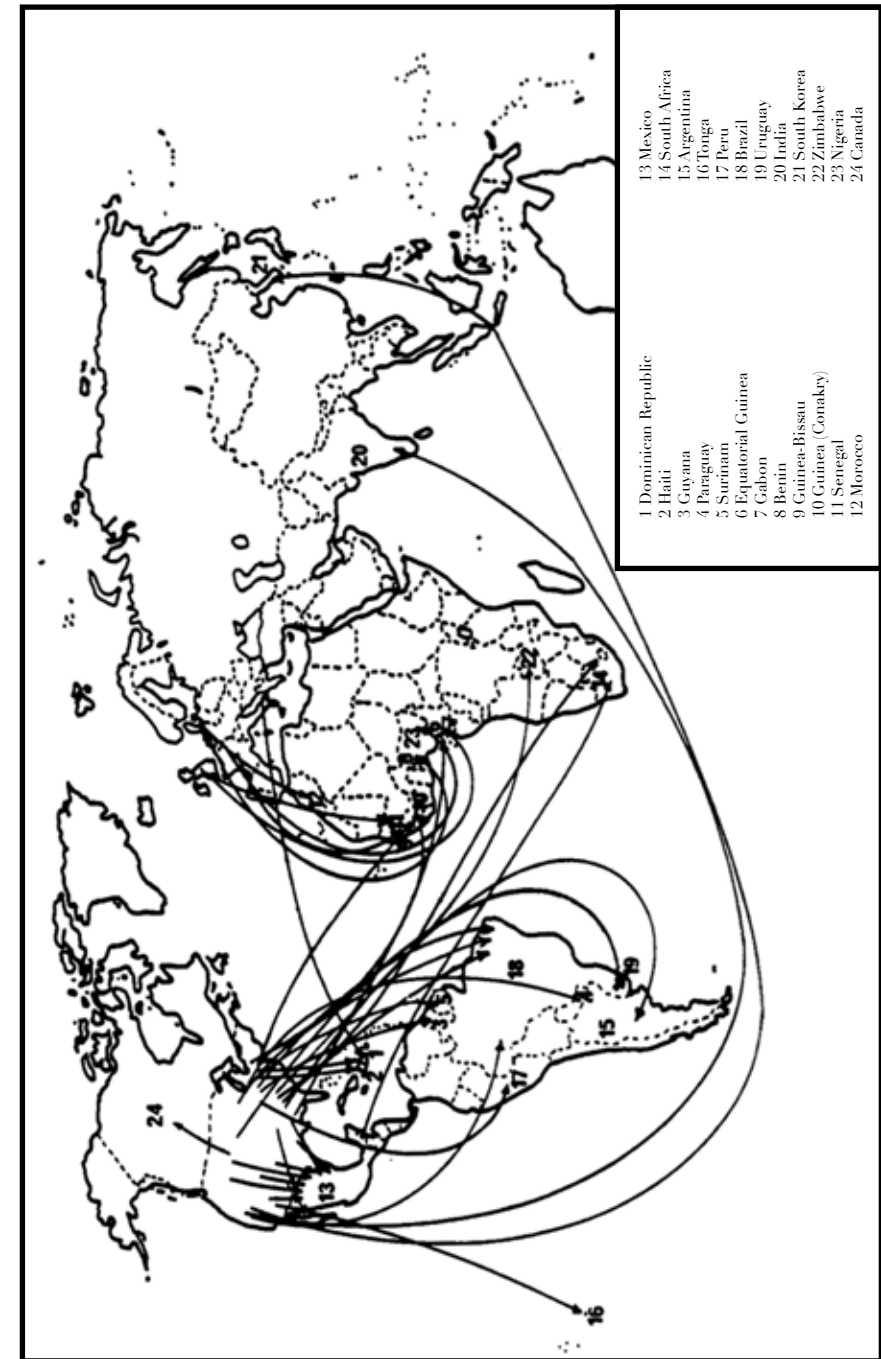


Fig. 1
Location of Active Waste Shipments (Jang B. Singh and Chris V. Lakhani, "Business Ethics and the International Trade in Hazardous Wastes," *Journal of Business Ethics* 8 (1989): 889-899.)

1988.¹² However, treating toxic chemicals, which currently costs several thousand dollars in the U.S., costs as little as \$2.50 per ton abroad.¹³ As a result, a growing number of companies in industrialized countries are exporting their toxic waste to developing countries or simply resorting to illegal dumping.¹⁴

HEALTH AND HUMAN RIGHTS RAMIFICATIONS OF THE GLOBAL WASTE TRADE

The continual and illegal international movement of toxic waste products is not simply an economic or financial problem affecting industrial manufacturers. According to the United Nations Commission on Human Rights, toxic waste dumping in developing countries affects the ability of millions to live healthy lives.¹⁵ In his seminal 1974 article “Ethics and Ecology,” American philosopher William Blackstone argued that “a livable environment is essential for one to fulfill his/her human capacities . . . [and access to this environment] must be conceived as a right which imposes upon everyone a correlative moral obligation to respect.”¹⁶ The dumping of hazardous wastes in developing countries is not simply an unethical or questionable practice: it is a violation of human rights.

The effects of exposure to toxic waste in the developing world have been hard to measure for several reasons. First, the health risks are often spread to varying degrees across large populations, and exposure levels may differ due to individual movement or larger scale migrations caused by war or other occurrences.¹⁷ It can be difficult to determine the contents of many toxic dumps, especially if the substances have been disposed of illegally.¹⁸ Moreover, the improper storage or disposal of hazardous waste can result in toxic chemicals leaching into the environment and accumulating in the tissues of humans and animals over time, and the effects may take years to manifest.¹⁹ Since many developing nations have limited health resources, collecting data on disease rates can be problematic, and separating the effects of toxic waste exposure from other types of illnesses even more so.

A World Health Organization (WHO) report published in 2007 found that women who lived near known waste sites classified as “most toxic” had a much higher risk of dying and developing liver cancer compared to their counterparts living in safe areas.²⁰ Illegal waste sites typically contain asbestos and lead, both of which are

extremely toxic and tend to accumulate in human tissues over time.²¹ According to Dr. Joseph La Dou, “lead poisoning is of epidemic proportions in many developing countries. In Malaysia, for example, blood levels of lead in many lead-acid battery workers are three times higher than allowed in US workers.”²² Although the recycling of lead batteries is a legitimate business in some developing countries, the hazards related to this type of trade far outweigh the benefits in the long run.²³

DEVELOPING NATIONS AND HAZARDOUS WASTES

Despite the known toxicity of these chemicals, exporters continue to view poor or less industrialized countries as an increasingly attractive option—and unfortunately, because of historical injustices, economic inequity, and poor government regulation, many developing countries are still partial to the international hazardous waste trade.

Due to an often substantial amount of foreign debt, developing countries often accept deals presented to them by multinational corporations despite the potential long-term costs. An example of this is Benin: in the late 1980s, Benin experienced a severe economic deficit that left it unable to pay its foreign debt.²⁴ In exchange for thirty years of aid and a \$1.6 million down payment, the desperate government agreed to import several million tons of radioactive and industrial waste from France, the nation’s former colonial ruler.²⁵ Although media opposition and civic protest eventually forced the French government to cancel the contract, a shipment of nuclear waste reportedly still found its way to Benin where it was buried.²⁶

Many developing nations lack the regulatory capacity or infrastructure to properly inspect foreign cargo. As a result, corrupt civilians or government officials can take advantage of these situations to make a quick profit. In 2006, the Swiss multinational Triguera leased a tanker that contracted with a waste management firm in Ivory Coast named Tommy to dump several tons of toxic waste in a local landfill.²⁷ Instead of paying the \$300,000 it would have cost to dispose of the waste in Europe, the tanker sailed to Ivory Coast where Tommy agreed to dispose of it for \$20,000.²⁸ Reports later revealed that Tommy was a shell company created solely for this deal and had neither the “qualifications, the competence or the ability to treat this waste.”²⁹ Workers simply dumped the highly toxic mixture

around poor neighborhoods in the city of Abidjan, where several thousand became ill and at least ten people died.³⁰

Because of the international media attention and outrage sparked by these cases, these illegal waste trading methods are now less openly practiced. Instead, industrialized nations are increasingly resorting to sham recycling schemes and disguising their hazardous waste exports as nontoxic products.³¹ In 1998, the Taiwanese petrochemical company Formosa shipped several thousand tons of mercury-laden sludge labeled as “construction waste” to Sihanoukville, Cambodia, where it was dumped in villages and near an important watershed.³² As residents in the area became sick, the operation was exposed, eventually forcing Formosa to pay Cambodia millions of dollars in damages.³³

Since this type of trafficking has gone underground and many countries have only just begun to regulate the trade and disposal of hazardous waste materials, it is nearly impossible to estimate the extent of these practices.³⁴

INTERNATIONAL LAW REGARDING HAZARDOUS WASTE

The 1972 Stockholm Declaration on the Human Environment was the first international document to attempt to regulate environmental protection through international law.³⁵ However, since the Declaration lacked the legal force of a treaty, it was not a binding document for international parties.³⁶ Several further attempts to regulate the transnational movement of hazardous waste were made subsequent to the Stockholm Declaration, but none achieved the international success of the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Known as the Basel Convention, this was the first major international document to address the problem of hazardous waste trading and dumping on an international scale.³⁷

Developed under the guidance of the United Nations Environment Program, the purpose of the Basel Convention is to provide a global rule of law for the international transport of toxic waste and to establish legally binding international standards.³⁸ Some of the major provisions of the Convention are:

(a) written consent from the receiving country must be obtained before exportation of wastes; this may be prohibited if the receiver is unable to process the waste in an environmentally sound manner;

(b) a signatory state cannot send hazardous waste to another signatory state that has a partial or complete ban on waste importation,

(c) a signatory state cannot export waste to any non-signatory state,

(d) any legislation regarding the import or export of hazardous waste that is enacted by any country or state must be honored,

(e) all transit countries must be given notice of transboundary movement through their jurisdictions and must provide consent before the waste is exported.³⁹

PROBLEMS WITH THE BASEL CONVENTION

Despite its current success, the drafting of the Basel Convention was an extremely contentious undertaking.⁴⁰ Prompted by many of the illegal dumping incidents that occurred in developing countries during the 1980s, the Convention highlighted opposition between the Northern and Southern Hemispheres.⁴¹ Drawing on their shared history of colonialist subjugation, members of the Organization of African Unity (OAU) saw the negotiations as an opportunity to express their solidarity against the North and called for a complete ban of international waste trading.⁴² Disagreement between nations often became heated as developing countries refused to allow toxic waste dumping on their territory. Despite the eventual compromises, the inability of opposing parties to agree on several important issues resulted in a weakening of the language of the Convention. Although not catastrophic, this weakening left loopholes that continue to obstruct the primary goals of the Convention.⁴³

First, the Convention defines wastes only as substances subject to disposal.⁴⁴ While the document designates household waste as “waste,” the Convention leaves the more precise definition of this term up to signatory states, leading to large discrepancies and difficulties in negotiation. For example, the United States does not define scrap metal as hazardous, but its shipments of scrap metal to other countries, such as Taiwan, have been found to contain PCBs, lead, and asbestos, all of which are hazardous chemicals.⁴⁵

In addition, the Convention employs the term “environmentally sound management” when addressing waste disposal between nations. This language can be subjected to any number of interpretations, and since environmental standards vary by country there is no way to assess compliance to this rule.⁴⁶

Second, the Basel Secretariat is mainly an information-channeling and monitory body. It cannot act as a legal enforcer. While the Secretariat has the authority to investigate illegal trade or waste dumping, it cannot prosecute, and it is left to signatory states to enforce the law and to ensure that binding contracts are honored.

Despite the weaknesses of the Basel Convention, it remains the strongest document to date governing the trade of hazardous wastes. Effective in 1998, the Basel Convention instituted a ban on the export of all forms of toxic waste from the 29 most industrialized countries members of the Organization of Economic Cooperation and Development (OECD) to all non-OECD countries.⁴⁷ This ban has been ratified by 63 countries and is currently enforced in 71 countries.⁴⁸ The United States is neither party nor signatory to the Basel Convention and is a notable exception to this treaty, especially as it is the largest single producer of hazardous waste in the world.

POLICY AND ACTION RECOMMENDATIONS

The adoption of a full ban by the Basel Convention was celebrated as a momentous victory for environmentalists and non-OECD countries, but that victory was only partial. Illegal waste trading still occurs but has simply moved underground, where the practice is more difficult to regulate. To maintain the momentum created by the ban, several measures need to be put into place:

- (a) a neutral international body, whose authority is recognized by all member parties, must be created to enforce the regulatory procedures set out by the Basel Convention,
- (b) a criminal tribunal, like the UN Criminal Tribunal for the former Yugoslavia, should be set up to investigate the illegal dumping of toxic substances, as well as to prosecute offenders and determine appropriate standards for compensation,
- (c) a treaty should be drafted outlining certain known carcinogenic compounds and detailing their common uses in the industrial process; this document would be of great use to poor countries that lack the resources to conduct comprehensive environmental research.

Although implementing these recommendations would be a challenge, both OECD and non-OECD countries have become more receptive to the idea of third-party environmental regulation as a result of the Basel Convention. Moreover, the terrible effects of

toxic dumping on human health and the environment are becoming increasingly apparent at a time when many countries are adopting a more global viewpoint toward issues of social and environmental justice.

CONCLUSIONS

Understanding the relationship between international waste trading and its effects on global health and the environment is key to addressing social and environmental inequities. But international toxic waste trading is only one piece of a greater problem. Wealthy nations have historically amassed resources at the expense of poorer nations, often resulting in the social and economic crippling of the latter. From the Spanish invasion of Mayan territories to the colonization of Africa by the British, consumption and the urge to accumulate wealth have been the driving force behind some of humanity's greatest tragedies. In the twenty-first century, our desire to obtain more and to obtain it faster has not changed. The difference is that the byproducts of our materialism have grown larger and more troublesome to dispose of. Like an ever-looming shadow, our trash now follows us around the globe at an accelerating pace.

The NIMBY syndrome is an expression of the denial that industrialized nations suffer from when confronted with the consequences of their actions. When industrialized countries dump their toxins in the backyards of poorer countries, the long-term ramifications of their actions affect not only those in developing nations. Energy, according to the familiar First Law of Thermodynamics, can be transformed but never created or destroyed. Our environment is a complex and synergistic system, and it follows that whether ten or ten thousand years from now the chemicals we dump in a stranger's backyard will eventually find their way into our own. Wealthy nations such as the United States would be best served by remembering this principle when considering how to dispose of their toxic waste.



NOTES

- 1 Robert M. Rosenthal, "Ratification of the Basel Convention: Why the United States Should Adopt the No Less Environmentally Sound Standard," *Temple Environmental Law and Technology Journal* 61 (1992): 61-78.
- 2 Jang B. Singh and Chris V. Lakhan, "Business Ethics and the International Trade in Hazardous Wastes," *Journal of Business Ethics* 8 (1989): 889-899.
- 3 Lydia Polgreen, "Neglect and Fraud Blamed for Toxic Dumping in Ivory Coast," *New York Times*, November 24, 2006.
- 4 Charles W. Schmidt, "Unfair Trade e-Waste in Africa," *Environmental Health Perspectives* 114 (2006): A232-235.
- 5 Singh et. al, "Business Ethics and the International Trade in Hazardous Wastes."
- 6 Ibid.
- 7 U.S. Environmental Protection Agency, "International Trade In Hazardous Waste: An Overview," (1998) <http://www.epa.gov/oecaerth/monitoring/programs/rcra/importexport.html>.
- 8 Singh et. al, "Business Ethics and the International Trade in Hazardous Wastes."
- 9 U.S. Environmental Protection Agency, "The National Biennial RCRA Hazardous Waste Report (Based on 2007 Data)," (2007) <http://www.epa.gov/epawaste/inforesources/data/biennialreport/>.
- 10 Jennifer Clapp, "The Toxic Waste Trade with Less-Industrialised Countries: Economic Linkages and Political Alliances," *Third World Quarterly* 15 (1994): 505-518.
- 11 Ibid.
- 12 Ibid.
- 13 Sean D. Murphy, "Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes," *American Journal of International Law* 87 (1994): 24-75.
- 14 Rosenthal, "Ratification of the Basel Convention: Why the United States Should Adopt the No Less Environmentally Sound Standard."
- 15 Tinashe Madava, "Illicit Dumping of Toxic Wastes Breach of Human Rights," *African Political Economy* 28 (2001): 288-290.
- 16 William T. Blackstone, "Ethics and Ecology" in *Philosophy and Environmental Crisis*, ed. William T. Blackstone (Athens: University of Georgia Press, 1972), 16-42.
- 17 David B. Menkes, "Exporting hazards to developing countries," *World Health Forum* 19 (1998): 412-416.
- 18 Francesco Mitis and Marco Martuzzi, eds., "Population health and waste management: scientific data and policy options - Report of a WHO workshop, Rome, Italy, 29-30 March 2007," World Health Organization Regional Office for Europe. http://www.euro.who.int/healthimpact/MainActs/20070228_1.
- 19 Murphy, "Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes."
- 20 Carla Guerriero and John Cairns. "The potential monetary benefits of re-claiming hazardous waste sites in the Campania region: an economic evaluation," *Environmental Health Journal* 8, no. 28 (2009), <http://www.ehjournal.net/content/8/1/28>.
- 21 Ibid.
- 22 Joseph La Dou, "First World Exports to the Third World - Capital, Technology, Hazardous Waste, and Working Conditions - Who Wins?" *Western Journal of Medicine* 156 (1992): 553-554.
- 23 Schmidt, "Unfair Trade e-Waste in Africa."
- 24 Senamede Beheton, "Benin Waste Imports," TED Case Studies, 4, no. 1 (1995), <http://www1.american.edu/TED/benin.htm>.
- 25 Ibid.
- 26 Ibid.
- 27 Polgreen, "Neglect and Fraud Blamed for Toxic Dumping in Ivory Coast."
- 28 Ibid.
- 29 Ibid.
- 30 Ibid.
- 31 Clapp, "The Toxic Waste Trade with Less-Industrialised Countries: Economic Linkages and Political Alliances."
- 32 MSS, "Hazardous Wastes and Poor Nations," *Economic and Political Weekly* 34 (1999): 527-528.
- 33 Ibid.
- 34 Murphy, "Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes."
- 35 Jang B. Singh and Emily F. Carasco, "Business Ethics, Economic Development and Protection of the Environment in the New World," *Journal of Business Ethics* 15 (1996): 297-307.
- 36 Ibid.
- 37 Katharina Kummer, "The International Regulation of Transboundary Traffic in Hazardous Wastes: The 1989 Basel Convention," *International and Comparative Law Quarterly* 41 (1992): 530-562.
- 38 Ibid.
- 39 Rosenthal, "Ratification of the Basel Convention: Why the United States Should Adopt the No Less Environmentally Sound Standard."
- 40 Kummer, "The International Regulation of Transboundary Traffic in Hazardous Wastes: The 1989 Basel Convention."
- 41 Ibid.
- 42 Ibid.
- 43 Ibid.
- 44 Ibid.
- 45 Rosenthal, "Ratification of the Basel Convention: Why the United States Should Adopt the No Less Environmentally Sound Standard."
- 46 Kummer, "The International Regulation of Transboundary Traffic in Hazardous Wastes: The 1989 Basel Convention."
- 47 Basel Action Network, "Ban Ratification Deposit Box," (2009) http://www.ban.org/Deposit_Box.html.
- 48 Ibid.