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Hazardous Waste Exportation: The Global Manifestation of Environmental Racism

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NOTES

Hazardous Waste Exportation: The Global Manifestation of Environmental Racism

ABSTRACT

During the last decade, the United Nations and other international organizations have been struggling with the issue of hazardous waste exportation to developing countries. At the same time, the United States has been grappling with environmental racism. However, critics of both hazardous waste exportation and environmental racism have overlooked their similarities, namely, that hazardous waste exportation and environmental racism place a disproportionate burden on the same classes of people, the poor and minorities. The exportation of hazardous waste to developing countries is essentially environmental racism on an international scale.

This Note briefly explains the history and economic motivations behind hazardous waste exportation and environmental racism. Several key international agreements and current U.S. policy are analyzed to determine their effectiveness in reducing the export of hazardous waste to developing nations. In comparison, studies suggesting a link between race, income, and the location of hazardous waste facilities in the United States are outlined, along with current U.S. policy on environmental racism. The Note concludes that the similarities between the two problems should enable opponents of both to join forces to reduce hazardous waste generation and to advocate the equitable location of hazardous waste facilities.

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I. INTRODUCTION

The United States government is currently waging a war against environmental racism in waste siting on both a national and an international level. Both Congress and the Clinton administration have proposed measures that would significantly restrict or ban the export of hazardous waste to developing nations.[1] At the same time, Congress and the Clinton administration are developing proposals to end the disproportionate siting of hazardous waste facilities in minority

1. Brad Knickerbocker, *US Joins Global Effort by Curbing Some But Not All Exports of Waste*, CHRISTIAN SCI. MONITOR, Mar. 4, 1994, at 1.

neighborhoods within the United States.[2] As Greenpeace and other environmentally conscious organizations have recognized, hazardous waste exporting to developing countries is simply the international equivalent of the disproportionate waste siting that occurs in the United States.[3]

A memorandum leaked from the World Bank illustrates the similarities between domestic and international inequity in waste siting.[4] In February 1992, an internal memorandum written by Lawrence Summers,[5] the vice president and chief economist of the World Bank, encouraged the export of hazardous waste to developing nations.[6] In the memorandum, Summers wrote, "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."[7] Summers based his conclusion on a cost-benefit analysis that valued human life on the basis of future earning potential.[8] Under this analysis, the lower the wage rate in a given nation, the lower the value of its citizens' lives. Thus, Summers concluded that "health-impairing pollution should be done in the country with the lowest cost, which will be the country with the lowest wages."[9]

The World Bank later distanced itself from the memorandum, stating that Summers meant the statement "ironically," and that it should not be taken literally.[10] But even if Summers' statement was an isolated incident of intellectual overreaching and not World Bank policy, it is still problematic, especially in light of the World Bank's administration of the Global Environmental Facility

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2. American Bar Association, Section of Individual Rights and Responsibility, *Not In My Backyard*, 20 HUM. RTS. 26 (Fall 1993) [hereinafter *NIMBY*].

3. Michael J. Satchell, *Deadly Trade in Toxics*, U.S. NEWS & WORLD REP., Mar. 7, 1994, at 65.

4. The World Bank was created by the United Nations in 1944 for the specific purpose of providing long-term investment resources for developing nations to facilitate social and economic growth. The World Bank is the largest financial institution of its kind and is financed by its 176 member states. *World Bank Group and IMF*, Xinhua General Overseas News Service, Sept. 19, 1993, *available in* LEXIS, News Library, Non-US File.

5. Lawrence Summers, a graduate of the Harvard Business School, is the vice president of the World Bank, an institution that enjoyed a $1.2 billion surplus in 1991. Doug Henwood, *Toxic Banking; World Bank's Environmental and Global Policies*, 250 NATION 257 (1992).

6. John Vidal, *A Gaffe Over The GEF*, GUARDIAN (London), Feb. 14, 1992, at 29.

7. Henwood, *supra* note 5.

8. *Id.*

9. *Id.*

10. *Id.*

(GEF).[11] The GEF is an international trust fund established in 1991 by the World Bank and the United Nations for the disbursement of funds to developing nations for environmental projects.[12] Since 1990, the GEF has grown to over $1.5 billion and is earmarked to help protect the same nations that Summers suggests be polluted.[13] The struggle facing opponents of hazardous waste exporting is magnified when the vice president of the organization meant to protect the environments of developing nations advocates polluting them.

While Mr. Summers' declarations may be troublesome to many people, they should not be surprising. In the United States, hazardous waste is consistently deposited in low-income and minority neighborhoods.[14] This Note illustrates that environmental racism occurs domestically and globally: the problem of selecting waste sites in the United States is a microcosm of the international issues raised by hazardous waste exportation. Part II explains the issues raised by hazardous waste exporting. The economic motivation behind the transboundary movement of hazardous waste is outlined, and the dangers created by these exports are examined. Part III describes the major bilateral and multilateral conventions that are intended to remedy the problems of hazardous waste exporting, as well as the current U.S. policy regarding these conventions. Part IV examines the history behind environmental racism in the United States and the major studies linking the location of hazardous waste sites with race and income. Current U.S. policy on this issue is also presented. Finally, Part V explains the microcosmic relationship between hazardous waste exporting and environmental racism. The Note concludes that the similarities between these two problems allow opponents of both hazardous waste exporting and environmental racism to join forces to reduce the generation of hazardous wastes and to promote the equitable siting of hazardous waste facilities.

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11. Vidal, *supra* note 6.

12. *Id.*

13. *Id.* The GEF has developed into one of the most important tools for international environmental projects. "GEF is, or looks set to become, the funding mechanism for the international conventions on ozone, biodiversity and climate change." Andrew Jordan, *Paying the Incremental Costs of Global Environmental Protections: The Evolving Role of GEF, Global Environment Facility,* 36 ENV'T 6, 13 (1994).

14. Paul Mohai & Bunyan Bryant, *Race, Poverty, and the Environment,* EPA J., Mar./Apr. 1992, at 6, 7.

II. THE PROBLEM OF HAZARDOUS WASTE EXPORTATION

A. *The Economic Reality*

In the latter half of the twentieth century, hazardous waste[15] generation[16] worldwide has increased astronomically. In 1947, worldwide hazardous waste generation is estimated to have been only five million metric tons.[17] Today, industrialized nations producing ninety percent of the world's hazardous waste[18] generate between 300 million and 400 million tons[19] of hazardous waste annually.[20] Hazardous waste generation in the United States alone has risen from an estimated nine million metric tons in 1970 to approximately 247 million metric tons in 1984.[21]

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15. Throughout this Note, the terms "hazardous waste" and "waste" are used interchangeably for the sake of brevity. However, in practice, "hazardous waste" is a subset of "waste" in general. Hazardous wastes include dioxin, pesticides, heavy metals, and plastics. *See infra* note 20.

16. Waste generation is distinct from pollution. *See, e.g.*, Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6903(27) (definition of "waste" distinguishes waste from pollution). While all waste that is generated has the *potential* to pollute, waste can and should be disposed in a manner that does not pollute. One goal of this Note is to call for the safe and proper disposal of hazardous waste to protect the global environment from pollution.

17. David P. Hackett, *An Assessment of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 5 AM. U. J. INT'L L. & POL'Y 291, 294 (1990).

18. Russell H. Shearer, *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste*, 23 ENVTL. L. 141, 144 (1993).

19. In the United States and Canada, hazardous waste is normally measured in 2000-pound tons. However, due to the transboundary movement of hazardous waste, organizations also use metric tons to measure waste. A metric ton is larger than a ton, weighing 2,204 pounds. MERRIAM WEBSTER'S COLLEGIATE DICTIONARY 733 (10th ed. 1993).

20. Ninety-eight percent of the world's hazardous wastes are produced by the twenty-four most industrialized nations. These wastes include dioxin, pesticides, heavy metals, and plastics. Cathleen Fogel, *Break the Toxic Waste Habit*, CHRISTIAN SCI. MONITOR, August 2, 1993, at 19.

21. Andrew Porterfield & David Weir, *The Export of U.S. Toxic Wastes*, 245 NATION 325 (1987). Estimates of the amount of hazardous waste generated each year in the United States vary considerably. The *Boston Globe* claims that 238 million tons of hazardous waste are produced each year. Mitchell Zuckoff, *Waste Letter May Be Hazardous; Nigerians Outline a Proposal to a Needham Consulting Firm*, BOSTON GLOBE, Dec. 12, 1994, at 23 [hereinafter *Waste Letter*]. Deeohn Ferris, Director of the Office for Environmental Justice of the Alliance for Washington, in her testimony before the U.S. House of Representatives, claimed that the United States generates over 500 million tons of hazardous waste each year. *Environmental Justice: Hearings before the Subcomm. on Environment, Energy and Natural Resources of the House Comm. on Government Operations*, FED. NEWS SERV., March 25, 1994.

While hazardous waste generation has increased precipitously, scientists have recognized that many disposal practices pose significant environmental and health problems.[22] This recognition has resulted in more stringent regulation of domestic hazardous waste disposal, which, in turn, has increased the cost of disposal and forced the closure of many landfill sites.[23] In response, generators of hazardous waste have sought alternatives for the disposal of their waste.[24] Many generators have turned to hazardous waste exporting.[25]

Since 1989, industrialized nations have legally exported an estimated five million tons of hazardous waste.[26] The primary motivation for exporting this hazardous waste is economic.[27] As recently as 1976, the cost of legally disposing of hazardous waste in the United States was $10 per ton;[28] today, the cost has risen to over $2,500 per ton.[29] Nations such as Guinea-Bissau in West Africa, however, are willing to dispose of hazardous waste for as little as $40 per ton.[30] When the cost of lawful disposal domestically is greater than the cost of disposal abroad, including transportation costs, hazardous waste producers will choose to

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Despite the numerical differences in the estimates, there is a consensus that the United States is the number one generator of hazardous waste in the world, generating more hazardous waste each year than all other industrialized nations combined. *See, e.g.*, Mitchell Zuckoff, *A River of Waste From Rich Nations Flows to the Poor; Foul Trade*, BOSTON GLOBE, July 12, 1994, at 1.

22. F. James Handley, *Hazardous Waste Exports: A Leak in the System of International Legal Controls*, 19 Envtl. L. Rep. (Envtl. L. Inst.) 10,171 (Apr. 1989) [hereinafter *Hazardous Waste Exports*].

23. Cristina L. Douglas, Comment, *Hazardous Waste Export: Recommendations for United States Legislation to Ratify the Basel Convention*, 38 WAYNE L. REV. 289, 289-90 (1991).

24. *Id.* at 290.

25. Many generators look to neighboring nations for disposal because neighboring nations may have additional landfill space available or less stringent environmental regulations. In 1988, for example, eighty-five percent of the 140,000 tons of hazardous waste that the United States legally exported went to Canada. F. James Handley, *Exports of Waste from the United States to Canada: The How and Why*, 20 Envtl. L. Rep. (Envtl. L. Inst.) 10,061 (Feb. 1990) [hereinafter *Exports of Waste*].

26. Louis Freedberg, *U.S. Plans Ban on Export on Toxic Waste*, S.F. CHRON., Feb. 26, 1994, at A4.

27. *See generally* ALAN A. BLOCK & FRANK R. SCARPITTI, POISONING FOR PROFIT: THE MAFIA AND TOXIC WASTE IN AMERICA (1984).

28. Porterfield & Weir, *supra* note 21.

29. Barbara D. Huntoon, Note, *Emerging Controls on Transfers of Hazardous Waste to Developing Countries*, 21 LAW & POL'Y INT'L BUS. 247 (1989).

30. James Brooke, *Waste Dumpers Turning to West Africa*, N.Y. TIMES, July 17, 1988, at A1.

export their waste.[31] "Like water running downhill, hazardous wastes invariably will be disposed of along the path of least resistance and least expense."[32]

The financial incentives for accepting hazardous waste from abroad can be very great for cash-poor, developing nations. In 1988, for example, the West African nation of Guinea-Bissau signed a five-year, $600 million contract with a group of European tanneries and pharmaceutical companies to dispose of fifteen million tons of toxic waste.[33] Under the terms of the contract, the Europeans would have paid Guinea-Bissau $120 million a year, an amount equal to eighty percent of the small nation's gross national product.[34] The staggering amount of money may have clouded the judgment of the Guinea-Bissau government regarding its citizens' best interests. The inherent danger of storing and disposing of hazardous wastes, even at permitted facilities in the United States, is well documented.[35] In communities with hazardous waste disposal sites, chronic and acute health problems have been linked with accidental and routine releases of hazardous waste, which may contaminate the atmosphere, soil, or groundwater.[36] Studies have also shown that the presence of such facilities can depress property values and "hurt domestic, educational and employment stability" in nearby communities.[37] Finally, residents living near these sites also may suffer psychological damage because of the constant threat of environmental disaster.[38] In developing nations, these dangers are multiplied by the lack of skill, knowledge, and technology necessary to handle hazardous waste properly.[39]

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31. Handley, *Hazardous Waste Exports*, *supra* note 22. In some areas of Russia, the price of disposal has reportedly dropped as low as ten rubles, or ten cents, per ton of hazardous waste. Peter Klebnikov, *Russia is Target of Toxic Dumping from the West*, ETHNIC NEWSWATCH, Sept. 19, 1993, at 1.

32. Porterfield & Weir, *supra* note 21, at 344 (quoting a statement made in 1983 by Representative James Florio, D-NJ).

33. Brooke, *supra* note 30.

34. *Id.*

35. *Environmental Justice and Proposed Legislation: Hearings before the Subcomm. on Transportation and Hazardous Materials of the House Comm. on Energy and Commerce*, FED. NEWS SERV., Nov. 18, 1993 (testimony of Sharon Carr Harrington).

36. *Id.*

37. *Id.*

38. *Id.*

39. Instead of being properly disposed in developing nations, hazardous waste is often dumped in remote areas or along roads, which substantially increases the likelihood of human exposure. Mary Critharis, Note, *Third World Nations Are Down In the Dumps: The Exportation of Hazardous Waste*, 16 BROOK. J. INT'L L. 311, 312 (1990).

The contract between the European companies and Guinea-Bissau was never enforced because public outrage within Guinea-Bissau over the agreement forced its government to terminate the contract.[40] The dilemma facing Guinea-Bissau and similarly situated developing nations is a difficult one because "[i]t's forcing other countries to choose between poverty and poison."[41]

B. *Dangers Inherent in Hazardous Waste Exportation*

As the people of Guinea-Bissau realized, exporters and importers tend to ignore the tremendous external costs, or externalities, associated with transboundary shipments of hazardous waste. These costs include: (1) local environmental and public health dangers; (2) dangers inherent in the transportation of hazardous waste; and (3) global concerns.

The first of these external costs—local environmental and public health dangers associated with imported waste—may be so great as to eliminate all financial benefits from any agreement to import waste for disposal.[42] Environmental and health problems may be particularly devastating to developing nations because such nations lack experience with hazardous waste disposal and, as a result, have few regulatory or technological controls for handling such waste. Events in the Russian towns of Cheliabinsk and Orehovo-Zuevo exemplify the potential danger of allowing inexperienced people to deal with hazardous waste. In 1992, both towns received several railroad cars filled with cargo labeled "humanitarian aid."[43] Unaware of the cargo's toxic qualities, the town of Cheliabinsk tried, unsuccessfully, to burn the waste.[44] The people of Cheliabinsk[45] were horrified to learn that the railroad cars actually contained seventy tons of toxic cellulose waste, which produces the defoliant dioxin when burned.[46]

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40. Brooke, *supra* note 30.

41. Zuckoff, *Waste Letter*, *supra* note 21 (quoting Greenpeace Researcher Connie Murtagh).

42. Peter Obstler, *Toward a Working Solution to Global Pollution: Importing CERCLA to Regulate the Export of Hazardous Waste*, 16 YALE J. INT'L L. 73, 79 (1991).

43. Klebnikov, *supra* note 31.

44. *Id.*

45. To add insult to injury, the carloads of waste sent to Cheliabinsk were addressed to the All Russia Center for the Deaf, a sixty-five year old facility with 5,000 patients. *Id.*

46. *Id.* Dioxins are a group of highly toxic chemicals created when chlorine is incinerated. In September 1994, the Environmental Protection Agency (EPA) released a report reassessing the dangers associated with dioxins. The EPA

Tragically, the town of Orehovo-Zuevo learned this lesson when its residents suffered dioxin poisoning and the attendant uncontrollable vomiting.[47] Ultimately, the costs of dealing with such local environmental and public health problems fall entirely on the people of the importing nation.

A second external cost associated with hazardous waste exporting stems from the dangers inherent in waste transportation itself. Transporters have a diminished incentive to avoid accidents resulting from transboundary hazardous waste shipments, in part, because most countries' liability regulations are weak or unenforceable once the waste has left its country of origin.[48] For example, at the present time, liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)[49] for United States generators does not apply extraterritorially.[50] Without the prospect of liability, generators and transporters are more likely to be careless and, therefore, to have accidents.[51] Another reason for careless transportation is that hazardous waste has a negative value for the generator.[52] The typical incentives for protecting cargo do not exist, and the transporter is more apt to damage or lose part of the cargo during transit.[53] One well-publicized example of "lost" cargo is the barge *Khian Sea*, which spent two years at sea trying to find a place to dump its load of toxic incinerator ash originating from Philadelphia, Pennsylvania.[54] Before the Haitian government agreed to take the ash in 1988, most of the toxic cargo had vanished, most likely in the Indian Ocean.[55] Because CERCLA did not apply in this situation, the crew of the *Khian Sea*

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determined that dioxins are more dangerous than previously understood and can cause birth defects, reproductive disorders, and cancer at *any* level of exposure. Ken Ward, Jr., *APCO May Make $3 Million in Pulp Mill Land Sale,* CHARLESTON GAZETTE, Feb. 7, 1995, at 1D.

47. Klebnikov, *supra* note 31.

48. Handley, *Hazardous Waste Exports, supra* note 22, at 10,175.

49. 42 U.S.C. §§ 9601-9657 (1988) [hereinafter CERCLA or Superfund]. *See generally* BENJAMIN A. GOLDMAN ET AL., HAZARDOUS WASTE MANAGEMENT: REDUCING THE RISK (overview of CERCLA statute).

50. *Cf.* Obstler, *supra* note 42, at 103 (arguing for the extraterritorial application of CERCLA as a solution to hazardous waste exporting).

51. *See* Handley, *Hazardous Waste Exports, supra* note 22, at 10,175.

52. *Id.* at 10,175 n.27.

53. *Id.*

54. Jon Sawyer, *Haiti Seeks Removal of U.S. Waste,* ST. LOUIS POST-DISPATCH, May 12, 1991, at 1A.

55. *Id.*

was not punished.[56] The global environment and, in particular, nations along hazardous waste transport routes eventually bear the cost of such carelessness.

If hazardous waste is spilled during transportation or is improperly disposed, the waste could return to the generator nation not in fifty-five gallon drums, but in its food supply. This boomerang effect[57] may occur, for example, when a United States municipality ships its sewage sludge to the Caribbean for use as fertilizer on crops.[58] This sludge, which is a solid by-product of municipal waste disposal systems, often contains heavy metals and pesticides that may infiltrate a plant's root systems.[59] Because the United States imports large quantities of food from the Caribbean and the Food and Drug Administration has the capacity to inspect only small amounts of these shipments, tainted food could possibly reach U.S. consumers.[60] This "circle of poison" affects the exporting industrial nation as well as the importing developing nation.[61]

Finally, the transboundary movement of hazardous waste to developing nations implicates enormous global concerns. Given developing nations inexperience in handling hazardous waste and the large quantities of such waste generated each year,[62] the possibility of a major international environmental disaster exists.[63] Although these disasters did not occur during the transport of hazardous waste, the 1984 Union Carbide disaster in Bhopal, India,[64] and the 1986 nuclear accident in Chernobyl[65]

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56. *See generally* Edith B. Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 GEO. L.J. 675 (1993) (general discussion of treaties relating to oceans and seas).

57. Jerry Alder, *Pesticide Protection*, NEWSWEEK, Nov. 9, 1987, at 71.

58. This scenario was presented by Wendy Greider, an official in the EPA's Office of International Activities. Porterfield & Weir, *supra* note 21, at 343.

59. *Id.*

60. *Id.*

61. *Hearings Before Subcomm. on Environment, Energy, and Natural Resources*, 100th Cong., 1st Sess. 2, 374 (1988) (testimony of Bonnie Ram, Bernard Schwartz Fellow in Energy and Environment, Federation of American Scientists).

62. The United States, for example, generated approximately 271 million tons of hazardous waste in 1990. Grant L. Katz, Note, *Implementing the Basel Convention into U.S. Law: Will it Help or Hinder Recycling Efforts?*, 6 B.Y.U. J. PUB. L. 323 (1992).

63. Obstler, *supra* note 42, at 79.

64. In re Union Carbide Corp. Gas Plant Disaster, 809 F.2d 195, 197 (2d Cir. 1987).

65. Alex Strachan, *Couple Seeks Holiday for Children of Chernobyl*, VANCOUVER SUN, Jan. 31, 1994, at B12.

highlight the potential magnitude for an international disaster involving hazardous materials. In Bhopal, a toxic gas leak from a pesticide manufacturing plant owned by Union Carbide killed as many as 10,000 people and injured over 200,000.[66] At the Chernobyl nuclear power plant near Kiev in the Ukraine, a fire and explosion shredded a nuclear reactor, filling the skies with radioactive isotopes and killing forty-two people.[67] The long-term effects of the radioactive emissions from the reactor at Chernobyl have been more difficult to quantify than those from Bhopal, but they are equally frightening considering that the emissions spread to other European nations.[68]

Both accidents illustrate the transnational nature of environmental disasters. The Bhopal tragedy revealed the environmental risks of certain transnational enterprises, while the Chernobyl disaster illustrated the potential risk of transnational environmental damage. The transboundary movement of hazardous waste presents both types of transnational risks. In either situation, the costs of remedying environmental damage or ensuring that appropriate preventive measures are taken should be borne not only by the importing nation, but also by its neighbors.

III. REMEDIES FOR HAZARDOUS WASTE EXPORTATION

Transboundary movement of waste clearly affects more than just importing nations. The export of hazardous waste to developing nations exposes the importing nation, its neighbors, every nation along the transportation route, and all nations with which the importing nation trades agricultural products to the dangers of mishandled hazardous waste. Since the mid-1980s, the international community has come to realize the global importance of this issue and has joined together to form a variety of multinational solutions to this problem. However, beginning

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66. *Union Carbide*, 809 F.2d at 197.

67. As a result of the explosion and radioactive release, an eighteen-mile "zone of estrangement" has been set around the Chernobyl plant, prohibiting former residents from returning to their villages, which have been completely buried to help control the radioactive contamination. Susan Benkelman, *Dealing with Chernobyl; 8 Years After the Accident, Big Potential Risks Remain*, NEWSDAY, Nov. 21, 1994, at A6.

68. Strachan, *supra* note 65 (estimating that 600,000 people were affected by radioactive emissions from the Chernobyl accident in 1986).

with the Basel Convention in 1989[69] and continuing through the Rio Declaration in 1992,[70] the multitude of opinions has failed to coalesce into a single, dominant solution for the externalities of hazardous waste exporting, which continue to be a vexing problem.

A. *The Basel Convention*

1. The Final Act of the Basel Convention

The first major agreement addressing the problem of hazardous waste exportation was the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention). Sponsored by the United Nations Environmental Programme (UNEP),[71] the Basel Convention was the result of nearly a decade of work by members of the United Nations to create a binding global treaty on the transboundary movement of hazardous wastes.[72] The challenge of the Basel Convention was reconciling the interests of the developing nations, which sought tight restrictions on hazardous waste exporting, with the interests of the industrialized nations, which wanted exporting to remain a viable alternative for hazardous waste disposal.[73] The resulting convention has been described as "a compromise treaty that is long on rhetoric and short on substance and effectiveness."[74] Although most of the 116 representatives to the United Nations initially refused to sign the treaty in 1989,[75] a sufficient number of nations have subsequently ratified the Convention so that it formally entered into force on May 5, 1992, three years after the First Conference

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69. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, *opened for signature* Mar. 22, 1989, UNEP Doc. IG.80/3, *reprinted in* 28 I.L.M. 657 (1989) [hereinafter Basel Convention].

70. Rio Declaration on Environment and Development, *adopted* June 14, 1992, U.N. Doc. A/Conf. 151/5/Rev.1, *reprinted in* 31 I.L.M. 874 (1992) [hereinafter Rio Declaration].

71. The United Nations Environmental Programme (UNEP) was established in 1972 by the United Nations Conference on the Human Environment at Stockholm to encourage the international exchange of ideas regarding the development of solutions to global environmental problems. Douglas, *supra* note 23, at 293.

72. Obstler, *supra* note 42, at 94.

73. *Id.*

74. *Id.*

75. Huntoon, *supra* note 29, at 261.

of the Parties ended.[76] Despite its inauspicious beginning, the Basel Convention remains the broadest and most significant international treaty on hazardous waste presently in effect.[77]

A central concern of the Basel Convention is the overall reduction of hazardous waste generation.[78] The Convention's primary means of reducing waste generation is to increase the cost of hazardous waste exportation, thereby forcing industries to reduce their waste generation rather than continuing to ship it abroad.[79] Article 4 of the Convention attempts to accomplish this goal by preventing toxic shipments in five situations.

First, Article 4 requires both importing and exporting parties to block the movement of specified types of waste that the importing state does not want.[80] Recognizing the sovereignty of each member state, the Convention permits the importing state to decide which wastes will be blocked under this scheme.[81] Second, for wastes not specifically prohibited by the importing state, both importing and exporting parties must prevent any waste shipment to which the importing state has not formally consented in writing.[82] This procedure is known as the "notice and consent" requirement.[83] Third, the Convention requires exporters to prohibit any waste shipment, particularly to a developing state, if the exporter "has reason to believe that the wastes in question will not be managed in an environmentally

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76. The Basel Convention enters into force ninety days after twenty nations ratify it. Basel Convention, *supra* note 70, art. 25(1). By April 28, 1992, twenty-two nations had ratified the Basel Convention: Argentina, Australia, China, Czechoslovakia, El Salvador, Finland, France, Hungary, Jordan, Latvia, Liechtenstein, Mexico, Nigeria, Norway, Panama, Poland, Romania, Saudi Arabia, Sweden, Switzerland, Syria, and Uruguay. Because obtaining the requisite twenty ratifying nations took three years, many viewed the Convention not so much as entering into force as "limping in." *United Nations Officials See Basel Treaty as "Limping" Into Effect with Limited Support,* Int'l Envtl. Daily (BNA) (May 22, 1992) [hereinafter *"Limping" Into Effect*].

77. Obstler, *supra* note 42, at 94.

78. The preamble to the Basel Convention states, in part, "that the most effective way of protecting human health and the environment from the dangers posed by such wastes is the reduction of their generation to a minimum in terms of quantity and/or hazard potential." The preamble also recognizes "[t]he need to continue the development and implementation of environmentally sound low-waste technologies, recycling options, good housekeeping and management systems with a view to reducing to a minimum the generation of hazardous wastes and other wastes." Basel Convention, *supra* note 69, pmbl.

79. Katz, *supra* note 62, at 327.

80. Basel Convention, *supra* note 69, arts. 4(1)(a)-(b).

81. *Id.* art. 4(1)(a).

82. *Id.* art. 4(1)(c).

83. Douglas, *supra* note 23, at 299.

sound manner."[84] Fourth, all parties to the Convention must prevent the shipment of any waste, hazardous or non-hazardous, meant for disposal in Antarctica.[85] Finally, all parties must prohibit the import and/or export of any waste, hazardous or non-hazardous, involving a non-party state.[86] The purpose of this last prohibition is to lock out, or exclude, non-ratifying states, such as the United States,[87] from all legal, hazardous waste trade with states parties to the Convention. This last prohibition may be set aside only if a separate international agreement, meeting the Basel Convention standard of "environmentally sound management," exists between the member and non-member states.[88] A violation of any of these prohibitions automatically requires the exporting state to recover its shipment from the importing state.[89]

The notice and consent provision and the lock-out provision are particularly important to the Basel Convention. The notice and consent provision requires the exporter to give written notice of its intent to ship hazardous waste to the importing nation, the exporting nation (if applicable), and all nations through which the waste is transported.[90] Within sixty days after an exporter has given such notice, the notified parties may respond in writing to reject the shipment, accept it with or without conditions, or request more information.[91] The exporting nation must prevent any shipment before receiving written notification of the importing nation's consent and proof of a contract to dispose of the waste in an environmentally sound manner.[92] The notice and consent provisions promote the exchange of information, allowing all affected nations to make informed and intelligent decisions about

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84. *Id.* art. 4(2)(e). The terms "reason to believe" and "environmentally sound manner" have come under fire from some commentators as being too broad and open to interpretation. Huntoon, *supra* note 29, at 264.

85. Basel Convention, *supra* note 69, art. 4(6).

86. *Id.* art. 4(5).

87. At the time of publication of this Note, the United States had not enacted the necessary legislation required to ratify the treaty. It is estimated that Congress will not attempt to implement the necessary legislation until 1996 because of the need to educate the new members of the House Energy and Commerce Subcommittee on Transportation about the complex issues relating to the Basel Convention. *U.S. Failure to Ratify Basel Treaty Seen as Environmental Justice Issue,* Nat'l Env't Daily (BNA) (Oct. 26, 1994).

88. Basel Convention, *supra* note 69, art. 11(1).

89. Obstler, *supra* note 42, at 96.

90. Basel Convention, *supra* note 69, art. 6(1).

91. *Id.* arts. 6(2), 6(4).

92. *Id.* arts. 6(3)(a)-(b).

the movement of hazardous waste across their borders.[93] These provisions also create a "paper trail" that increases the accountability of the parties involved.[94]

The lock-out provision provides a compelling incentive for all United Nations member states to ratify the Basel Convention. If a state fails to ratify the treaty, it may not engage in hazardous waste trade with states that have ratified the Convention.[95] The threat of being locked out of trade with certain regions of the world provides an incentive to become a party to the Convention. This threat is significant because seventy-six states have chosen to ratify the Convention.[96]

Under certain circumstances, however, the lock-out provision may discourage ratification of the Basel Convention. For instance, by refusing to join the treaty—claiming that it does not protect developing states sufficiently—the Organization of African Unity (OAU) states[97] effectively banned all hazardous waste imports from states that ratified the Basel Convention.[98] Thus, nations contemplating ratification were locked out of the hazardous waste trade with some potential recipients of waste, regardless of whether they ratified the Convention.[99] If these nations ratified the Basel Convention, they would have been locked out of trade with OAU nations under Article 4, Section 5 of the Convention.[100] If these same nations failed to ratify it, they themselves would have been excluded from trade with parties to the Basel Convention under the same provision.[101] This Catch-22 mechanism has impeded further movement towards ratification and, in turn, has limited the effectiveness of the Basel Convention.[102]

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93. David J. Abrams, Note, *Regulating the International Hazardous Waste Trade: A Proposed Global Solution*, 28 COLUM. J. TRANSNAT'L L. 801, 825 (1990).

94. *Id.* Because the status of hazardous wastes can be more effectively monitored as a result of the paperwork required by the notice and consent provision, the accountability of the parties involved in the transboundary movement of waste is increased.

95. Basel Convention, *supra* note 69, art. 4(5).

96. *Signatories to Basel Pollution Pact to Meet With Industry on Implementation*, Daily Rep. for Executives (BNA) No. 248 d14 (Dec. 30, 1994) [hereinafter *Signatories Meet With Industry*].

97. Fifty-three African states are members of the Organization of African Unity. *South Africa: International Law Provisions of the 1993 Constitution*, 33 I.L.M. 1043 (1994).

98. *Id.*

99. *Id.*

100. Basel Convention, *supra* note 69, art. 4(5).

101. *Id.*

102. A major concern at the time the Basel Convention came into force was the lack of large industrialized nations as parties. Twenty-one nations initially

2. Second Conference of the Parties to the Basel Convention

On March 25, 1994, signatory states to the Basel Convention met in Geneva, Switzerland, at the Second Conference of the Parties. At this meeting, the parties reached a decision that may develop into a sixth situation under which the transboundary movement of hazardous waste may be banned.[103] The seventy-six member states agreed to a total ban on hazardous waste exports from nations belonging to the Organization for Economic Cooperation and Development (OECD)[104] to non-OECD nations.[105]

This decision marks a significant departure from the original goal of the Basel Convention, namely, making hazardous waste exportation less appealing economically, rather than prohibiting the trade outright.[106] Nevertheless, a ban on hazardous waste exports from OECD nations to non-OECD nations effectively would eliminate all hazardous waste exporting to less developed nations, further promoting the goal of the Basel Convention. Although some commentators have labelled the March 25 decision "a striking victory for global environmental justice,"[107] international industry and the United States have been less enthusiastic about the decision. As a result of the March 25 decision, the U.S. Chamber of Commerce has withdrawn its support of the Basel Convention, and the Clinton administration has slowed its ratification efforts.[108]

Unlike the first five prohibitions of the Basel Convention, the prohibition contained in the March 25 decision is not legally

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ratified the Convention. Conspicuous by their absence were the United States, Canada, and eleven of the twelve European Community states at that time (all except France). *"Limping" Into Effect, supra* note 76.

103. *OECD Hazwaste Export Ban by 1998,* HAZNEWS, May 1994, at 74 [hereinafter *Export Ban*].

104. The OECD was organized to help coordinate the trade policies of its member states. It is comprised of the world's twenty-five most industrialized nations and Mexico. *DOJ Hits Borden Chemicals with Charges of RCRA, Right-to-Know, Air Act Violations,* Chem. Reg. Daily (BNA) (Oct. 31, 1994).

105. The ban proposes to operate in two phases. In the first phase, all hazardous waste exports from OECD states for final disposal in non-OECD states have been immediately banned. Exports to non-OECD states for recycling are permitted until Dec. 31, 1997, when phase two begins and prohibits them. Until 1998, non-OECD states must notify the Basel Secretariat of any recycling imports from OECD states. *Signatories Meet With Industry, supra* note 96.

106. Katz, *supra* note 62, at 327.

107. *Export Ban, supra* note 103.

108. *"Wait-and-See" May Become U.S. Policy on Recent Export Ban Under Basel Treaty,* Int'l Env't Daily (BNA) (June 21, 1994) [hereinafter *"Wait-and-See"*].

binding because it was made separately, after the final act of the Convention.[109] Nevertheless, the international pressure associated with the decision will make hazardous waste exports to non-OECD nations "taboo."[110] Industry representatives and Basel Convention signatories are scheduled to meet in Dakar, Senegal, on March 13-15, 1995, to discuss potential modifications of the March 25 decision.[111] The results of these discussions will be forwarded to the Third Conference of the Parties to the Basel Convention, scheduled for September 1995 in Madrid, Spain.[112]

B. *The Lome IV Convention*

As many developing nations began to realize that the Basel Convention would fail to protect their interests adequately, some of these nations decided to form their own multilateral treaties banning the importation of hazardous waste into their territory. In 1990, the African, Caribbean, and Pacific states (ACP states)[113] and the European Economic Community (EEC)[114] signed the Lome IV Convention.[115] The Lome IV Convention bans all hazardous waste exports from EEC states to ACP states[116] and prohibits ACP states from accepting hazardous waste imports from any other nations.[117] According to one commentator, these two requirements make the Lome IV Convention the "most sweeping international ban on the hazardous waste trade to date."[118]

Some commentators viewed this outright ban of exports from the EEC to ACP states as an indication that industrialized nations were beginning to distinguish hazardous waste exports to

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109. *Id.* The fact that the decision was made after the final act of the Convention has caused the United States to complain about the manner in which the decision was made. *Id.*

110. *Id.*

111. *Signatories Meet With Industry, supra* note 96.

112. *Id.*

113. The ACP states are the sixty-eight former European colonies found in Africa, the Caribbean, and the Pacific. Abrams, *supra* note 93, at 840.

114. At the time of the signing of the Lome IV Convention, there were twelve states in the European Economic Community: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom. *Fact Sheet: European Community,* 3 DEP'T ST. DISPATCH 51 (1992).

115. The Fourth African, Caribbean, and Pacific States-European Economic Community Convention of Lome, *opened for signature* March 22, 1990, 29 I.L.M. 783 (1990) [hereinafter Lome IV Convention].

116. *Id.* art. 39(1).

117. *Id.*

118. Abrams, *supra* note 93, at 840.

developing nations from those to industrialized nations.[119] The position of the Lome IV Convention suggests a departure from the stance taken by many industrialized nations at the Basel Convention's First Conference of the Parties. Disagreement over the appropriate extent of the ban on hazardous waste delayed the implementation of the Basel Convention until May 5, 1992.[120] In contrast, under the Lome IV Convention, the complete ban of hazardous waste exports to ACP states became effective immediately, notwithstanding the fact that the rest of the Convention had yet to take effect.[121]

The revolutionary aspect of the Lome IV Convention is its complete ban on hazardous waste exports to ACP states,[122] regardless of whether the waste originates in EC member states.[123] African nations were some of the earliest victims of the hazardous waste trade and also the first to fight back against toxic terrorism.[124] The importance of hazardous waste exporting to African nations is illustrated by the fact that in 1988, the Nigerian government threatened hazardous waste importers with

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119. *See id.*

120. The fact that all thirty-nine of the African nations at the Basel Convention refused to sign the treaty made its ratification by the requisite twenty nations more difficult to attain and delayed the Basel Convention from entering into force. Huntoon, *supra* note 29, at 261.

121. The rest of the Lome IV Convention was a ten-year trade and aid pact between the EC and the ACP states. The ban on hazardous waste exporting was made effective immediately because the parties to the Convention recognized that several months would pass before the entire treaty could officially enter into force. Under the Lome IV Convention, the treaty had to be ratified by the parliaments of all twelve EC states at the time and by two-thirds of the ACP states. *EC Bans Dangerous Waste Exports to Third World,* Reuters, Mar. 22, 1990, *available in* LEXIS, News Library, Arcnws File. Given that the Convention did not officially enter into force until September 1991, the parties to the Convention correctly assumed that its ratification would take months. *Address by Mr. Manuel Marin at the Joint ACP/CEE Assembly-Amsterdam 24 Sept. 1991,* RAPID, Sept. 24, 1991.

122. Some European Community officials wondered if a complete ban on hazardous waste exports to ACP states under the Lome IV Convention ran counter to the international free trading rules set forth in the General Agreement on Tariffs and Trade (GATT) talks. *Environment: EC Dispute over Toxic Waste Exports to Third World,* Inter Press Service, Dec. 20, 1991, *available in* LEXIS, News Library, Non-US File.

123. Lome IV Convention, *supra* note 115, art. 39(1).

124. Brooke, *supra* note 30. In speaking out against hazardous waste exports, President Daniel Arap Moi of Kenya called these acts of the industrialized nations "garbage imperialism." The Minister of Environment of the Republic of Mali, Morifing Kone, called the exports "morally reprehensive and criminal act[s]." ENVIRONMENTAL LAW AND MACHINERY UNIT, HAZARDOUS WASTE: WHY AFRICA MUST ACT NOW 1-3 (Dec. 1989) [hereinafter ELMU Article].

death by firing squad.[125] When the industrialized states refused to agree to a total ban on hazardous waste exporting, the African states recognized that they would have to take the initiative to protect themselves. The leaders of African states, in particular, have continued to stress the importance of banning all imports of hazardous wastes.[126]

C. *The Bamako Convention*

The Organization of African Unity (OAU) believed that the Basel Convention failed to protect adequately the continent of Africa, citing the treaty's lack of a complete ban on the transboundary movement of hazardous waste.[127] In addition, the OAU believed that Basel Convention guidelines could be evaded too easily because no effective system existed for the administration of the treaty.[128] Out of these concerns developed the Bamako Convention,[129] which bans all imports of hazardous waste into Africa and restricts the movement of waste already in Africa.[130]

Although both the Bamako and Lome IV Conventions protect African states, these conventions are distinguishable. One of the primary distinctions between the Bamako Convention and the Lome IV Convention lies in the composition of the signatories of each agreement—members of the OAU and the ACP states, respectively. Whereas political history determines membership in the ACP states, OAU membership is defined exclusively in terms of geography. The ACP states, while including African nations, extend membership to all former European colonies, including Caribbean and Pacific Island nations. All ACP states do not necessarily share the same environmental concerns because their

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125. After learning that hazardous wastes from Italy had been dumped in a Nigerian port, Duro Onabule, a spokesman for the government, threatened the importers with a firing squad and declared, "There will be no mercy on this issue." Phillip Shabecoff, *Irate and Afraid, Poor Nations Fight Efforts to Use Them as Toxic Dumps*, N.Y. TIMES, July 5, 1988, at C4.

126. Only Africa and Central America have banned all hazardous waste imports to their respective regions. Fogel, *supra* note 20, at 19.

127. Shearer, *supra* note 18, at 151.

128. *Id.*

129. Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa, *opened for signature* Jan. 29, 1991, 30 I.L.M. 773 (1991) [hereinafter Bamako Convention].

130. Shearer, *supra* note 18, at 143.

geography and location vary dramatically.[131] The conflicting interests of the ACP states limited the scope and the specificity of the Lome IV Convention. Membership in the OAU, on the other hand, is limited solely by the geographic boundaries of the African continent. All OAU member states, therefore, have similar environmental concerns, allowing the Bamako Convention to address a broader range of issues as well as more specific environmental issues and threats. Thus, the Bamako Convention, while sharing the Lome IV policy goal of protecting African nations, is both broader and more specific than the Lome IV Convention.

As previously discussed, the Bamako Convention was designed to provide greater protection to African states than the Basel Convention. Although the preambles to both the Basel and Bamako Conventions are similar,[132] several important differences between the two agreements make the Bamako Convention broader.[133] First and most importantly, the Bamako Convention completely bans all hazardous waste imports into Africa,[134] including the importation of waste for use in recycling,[135] a frequently used loophole in the Basel Convention.[136] Article 2 of the Bamako Convention defines hazardous waste more broadly than the Basel Convention, thereby allowing the regulation of

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131. For example, Pacific Island states may be particularly concerned with ocean dumping, whereas interior African states may be more concerned with soil and groundwater contamination. *See id.* at 146-47.

132. "Both conventions call for a reduction of quantity and hazard potential of wastes generated, place responsibility for the disposal and consequences thereof upon the generator, preserve the sovereignty of states to completely ban the import of wastes, call for the disposal of wastes at the locus of generation where environmentally sound, call for the use of clean technologies and sound waste management practices, call for the eventual elimination of hazardous waste, and call for the safe transportation of waste where such transportation is necessary." Shearer, *supra* note 18, at 153.

133. *Id.*

134. Bamako Convention, *supra* note 129, art. 4(1).

135. *See id.*

136. *See, e.g., Environment: North's Toxic Exports To The South Continue To Rise*, Inter Press Service, May 22, 1993, *available in* LEXIS, News Library, Non-US File ("Direct waste dumping is taking place in the name of recycling.") [hereinafter *North's Toxic Exports*]; *Greenpeace: Call For Ban On All Waste Exports*, EUR. ENV'T, June 2, 1992, *available in* LEXIS, News Library, Non-US File (1,500 metric tons of pesticides, such as DDT and dioxin, exported for reuse from Germany to Romania, found abandoned and open, near drinking water); *Euro-MPS Slam EC Waste Exports to Third World*, Reuter Library Reports, Mar. 12, 1992, *available in* LEXIS, News Library, Non-US File (Egyptians reject German shipment of battery casings to be "recycled" by fire, which would have produced dioxin).

more types of wastes.[137] The Bamako Convention also creates a limited ban on the transfer of hazardous waste within and among the African nations.[138] Taken together, these provisions allow hazardous waste to be exported from and transferred among African nations, but prohibit all imports from outside the OAU.[139]

Second, in response to fears that the administrative framework of the Basel Convention is ineffective, Article 5 of the Bamako Convention requires each member state to designate competent authorities, a focal point, and a dumpwatch.[140] The focal point is an attempt to centralize each member state's administration of the treaty. The competent authorities are the contact people charged with handling the necessary administrative work.[141] The dumpwatch is not clearly defined in the treaty;[142] however, its apparent purpose is to monitor the dumping of hazardous waste.[143] Although both Conventions require competent authorities and a focal point to be designated by member states,[144] the Basel Convention lacks the additional monitoring system created by the dumpwatch in the Bamako Convention.

Third, Article 4 of the Bamako Convention specifically prohibits the dumping of hazardous waste at sea or in internal waters, a prohibition conspicuously absent from the Basel Convention.[145] This provision is designed to prevent incidents such as that of the *Khian Sea*, in which most of a load of hazardous waste was "lost" in the Indian Ocean.[146] Dumping in

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137. The Bamako Convention also includes the regulation of radioactive wastes, which the Basel Convention failed to include directly. Shearer, *supra* note 18, at 155.

138. *Id.* at 163.

139. Bamako Convention, *supra* note 129, arts. 4(1), (3)(n)(i)-(ii).

140. Article 5 provides, in part, "Parties shall . . . appoint a national body to act as a Dumpwatch. In such capacity as a Dumpwatch, the designated national body only will be required to co-ordinate with the concerned governmental and non-governmental bodies." *Id.* art. 5(4).

141. The focal point is the central authority for each member state administer the treaty. Certain reporting and administrative responsibilities are delegated to the competent authorities. Mr. Shearer compares the focal point to the Washington, D.C. office of the United States EPA and the competent authorities to the regional offices of the EPA. Shearer, *supra* note 18, at 167 n.164.

142. *See generally* Brooke, *supra* note 30.

143. *Compare* Basel Convention, *supra* note 69, art. 5 *with* Bamako Convention, *supra* note 129, art. 5.

144. Bamako Convention, *supra* note 129, art. 4(2).

145. *Id.*

146. *See* Sawyer, *supra* note 54, at 1A. *See also* text accompanying *supra* notes 54-56.

international waters has also been addressed explicitly in other treaties.[147]

Fourth, the Bamako Convention applies unlimited joint and several liability on the generators of improperly disposed waste.[148] The unlimited liability provision allows for the imposition of whatever damages are deemed appropriate by the trier of fact, including punitive damages.[149] The Basel Convention, on the other hand, because of the conflicting interests of its industrialized and developing signatory nations, does not incorporate the requisite mechanisms for applying liability against the generators of hazardous waste.[150]

Fifth, the Bamako Convention mandates extremely high standards for the prevention of pollution. The Bamako standards are much more stringent than those found in the Basel Convention.[151] The Bamako Convention requires the "preventative, precautionary approach to pollution problems"[152] and explicitly rejects the less stringent "permissible emissions approach."[153] The preventative, precautionary approach prohibits the release of potentially harmful substances even without scientific evidence of harm, whereas the permissible emissions standard allows the release of any toxic waste until its designated threshold is reached.[154] In contrast, the Basel Convention only requires hazardous waste generation levels to be reduced in light

147. *See generally* Weiss, *supra* note 56. Among the treaties discussed are: Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Dec. 29, 1972, 26 U.S.T. 2403, 1046 U.N.T.S. 120; Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution, Feb. 16, 1976, 15 I.L.M. 290; Protocol for the Prevention of Pollution of the South Pacific Region by Dumping, Nov. 25, 1986, 26 I.L.M. 65 (entered into force Aug. 22, 1990); and the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Mar. 24, 1983, T.I.A.S. No. 11,085, 22 I.L.M. 227 (entered into force Oct. 11, 1986).

148. Bamako Convention, *supra* note 129, art. 4(3)(b).

149. *See* Shearer, *supra* note 18, at 158.

150. Obstler, *supra* note 42, at 96-97.

151. *See* Shearer, *supra* note 18, at 160-62.

152. Bamako Convention, *supra* note 129, art. 4(3)(f).

153. The "permissible emission approach" is based on the concept that the environment can effectively absorb toxins up to a threshold, above which the environment can no longer assimilate the toxins. J. GORDON ARBUCKLE ET AL., ENVIRONMENTAL LAW HANDBOOK 4-5 (11th ed. 1991). Under this approach, a threshold level is determined, and polluters are allowed to pollute as much as they want until the threshold is reached. This approach establishes a significantly less stringent standard than the "preventative, precautionary approach," which maintains that no amount of pollution is acceptable. *Id.*

154. *See id.*

of social, technological, and economic factors.[155] Therefore, the Basel standards are less stringent because they do not require pollution prevention technology that may exceed a nation's technological or economic abilities.[156]

The Bamako Convention's broad scope and high standards ultimately may limit the economic development of African nations. Specifically, the broad definition of hazardous waste, which closes the perceived loophole for recycling materials, limits African nations to the use of those materials already found on the continent,[157] thereby inhibiting industrial growth in Africa. Similarly, the ambitious "preventative, precautionary approach" to preventing pollution may also stunt industrial growth in Africa because it permits the imposition of emissions limitations before scientific evidence has established the likelihood of harm. These restrictions will increase business costs in Africa and discourage industries from locating there.[158] Nevertheless, the OAU appears to have made the conscious decision to protect its nations from hazardous waste even at the expense of diminished industrial growth.

D. *The Rio Declaration*

In June 1992, the United Nations Conference on Environment and Development brought 178 nations together in Rio de Janeiro, Brazil, to discuss the future of international environmental law.[159] The result was the Rio Declaration, a legally nonbinding statement of principles concerning the global environment and development.[160] The scope of the Rio Declaration is extremely broad, recognizing each nation's duty to "protect the integrity of the global environment,"[161] and to provide priority treatment to "the special situation and needs of developing countries, particularly the least developed and those

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155. Basel Convention, *supra* note 69, art. 4(2)(a).

156. Shearer, *supra* note 18, at 162. Mr. Shearer argues that the Bamako Convention's "preventative, precautionary approach" may be too burdensome for states belonging to the OAU because its member states do not have access to the same resources available to more developed states. If businesses and industries in the OAU cannot afford the technology required by the "preventative, precautionary approach," this provision will not be enforceable. *Id.* at 167-76.

157. Shearer, *supra* note 18, at 175.

158. *Id.* at 176.

159. Weiss, *supra* note 56, at 707.

160. Stephen L. Kass & Michael B. Gerrard, *After Rio*, N.Y.L.J., Aug. 28, 1992, at 3.

161. Rio Declaration, *supra* note 70, pmbl.

most environmentally vulnerable."[162] Although the Rio Declaration is not legally binding, it is significant because it represents the views of a large majority of the world's countries.[163]

Importantly, the Rio Declaration proclaims that the transboundary movement of hazardous waste should be discouraged.[164] Principle 14 of the Declaration calls for a collective effort by member states of the United Nations to prevent the movement of materials harmful to the environment and/or humans.[165] Principle 19 sets up a prior notice system between states, similar to the notice and consent provision found in the Basel Convention.[166] These principles, combined with the special priority given to developing nations, demonstrate a movement away from the hard line that industrialized nations took in the Basel Convention toward a view that developing nations must be protected from hazardous waste exports. Though non-binding and intentionally non-specific, the Rio Declaration promises to add another piece to the continually developing body of international environmental law and to aid in the development of a more effective global environmental policy.[167]

E. *Current United States Policy*

On February 28, 1994, the Clinton administration proposed a ban on the export of hazardous waste from the United States, particularly on transfers to developing nations.[168] Although the United States exports only a very small fraction of the hazardous waste it generates,[169] with most of that waste ending up in

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162. *Id.* princ. 6.

163. *See id.*

164. *North's Toxic Exports*, *supra* note 136.

165. Principle 14 provides: "States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health." Rio Declaration, *supra* note 70, princ. 14.

166. Principle 19 reads: "States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith." *Id.* princ. 19. Article 4(1)(c) of the Basel Convention states: "Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import. . . ." Basel Convention, *supra* note 69, art. 4(1)(c).

167. Kass & Gerrard, *supra* note 160, at 3.

168. Freedberg, *supra* note 26, at A4.

169. In 1992, 145,000 tons of hazardous wastes were exported from the United States. Vicki Allen, *Clinton Seeks Ban on Most Hazardous Waste Exports*,

Canada and Mexico,[170] the proposed ban represents a dramatic step toward protecting developing nations from hazardous waste. If the United States enacted legislation to impose this ban, it would be in a position to ratify the Basel Convention, which it signed five years ago.[171]

The Clinton administration hopes the proposed ban will prevent companies from circumventing strict U.S. environmental standards by sending waste to nations with much weaker regulations.[172] Under the current United States regulatory system, U.S. agencies have no control over the export of waste because companies need only the consent of the importing nation to ship their hazardous waste.[173] The Clinton ban would block the export of all hazardous waste to developing nations.[174] It would also phase out shipments to OECD nations[175] over a five-year period to allow the recycling industry in the United States to prepare for increased demand.[176] Hazardous recyclable materials would be temporarily exempted, but that exemption would terminate after five years.[177] Safe recyclable wastes like paper, plastics, and textiles, however, would be exempted entirely, as would waste exports to Canada and Mexico.[178] Even with these exemptions, the Clinton ban would still be one of the world's most restrictive bans.[179]

Reuter European Business Report, Mar. 1, 1994, *available in* LEXIS, News Library, Curnws File.

170. *Id. See also* Handley, *Exports of Waste*, *supra* note 25, at 10,061 (eighty-five percent of U.S. hazardous waste exports are to Canada).

171. The Basel Convention received the advice and consent of the United States Senate in 1992. However, the Convention cannot be officially ratified until the United States enacts the appropriate legislation to meet the requirements of the Basel Convention. *Hazardous Waste, U.S. Exports to OECD for Recycling Would Continue Under Swift-Synar Bill*, Daily Rep. for Executives (BNA) No. 42 d29, at A42 (Mar. 4, 1994) [hereinafter *Exports to OECD*].

172. *See* Freedberg, *supra* note 26.

173. *Id.*

174. *Id.*

175. The OECD was organized to help coordinate the trade policies of its member states: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. *See* Convention on the Organization for Economic Co-operation and Development, Dec. 14, 1960, 12 U.S.T. 1728, 888 U.N.T.S. 179. *DOJ Hits Borden Chemicals with Charges of RCRA, Right-to-Know, Air Act Violations*, Chem. Reg. Daily (BNA) (Oct. 31, 1994).

176. *See* Allen, *supra* note 169. With a ban on hazardous waste exporting, waste generators will be forced to turn to the recycling industry as an alternative method of disposal. *Id.*

177. The exemption applies to OECD member states. *Id.*

178. *Id.*

179. Freedberg, *supra* note 26, at A4.

On March 7, 1994, U.S. Representatives Mike Synar (D-Okla.) and Al Swift (D-Wa.) presented a bill, entitled the Waste Export and Import Control Act of 1994, in the United States House of Representatives as an alternative to the ban proposed by the Clinton administration.[180] The Synar-Swift bill also would have satisfied Basel Convention standards and allowed for the official ratification of the Convention by the United States.[181] However, the March 25 decision by the parties to the Basel Convention to ban all hazardous waste exports from OECD nations to non-OECD nations caused the U.S. Chamber of Commerce to withdraw its support for ratification of the Basel Convention, thereby eliminating any momentum that the Swift-Synar bill may have had to pass.[182] United States industry forces and the U.S. Chamber of Commerce withdrew their support because they viewed the March 25 decision as "contrary to . . . the goals of open world trade;" "the convention cannot be viewed as the same document the United States originally signed."[183] The major challenge of the Basel Convention was to reconcile the interests of developing nations, which wanted to limit or remove

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180. The Waste Export and Import Control Act of 1994, H.R. 3965, 103d Cong., 2d Sess. (1994) [hereinafter Synar-Swift Bill]. *Greenpeace Claims U.S. Auto Batteries Source of Worker Lead Poisoning Overseas*, Nat'l Envtl. Daily (BNA) (Mar. 11, 1994).

181. *Exports to OECD, supra* note 171, at A42.

182. *"Wait-and-See," supra* note 108. The November 1994 general elections in the United States have created more confusion over the United States policy on hazardous waste exporting. Representative Mike Synar lost his seat in the U.S. House of Representatives in the primary elections. *US Failure to Ratify Basel Treaty Seen As Environmental Justice Issue*, Nat'l Envtl. Daily (BNA) (Oct. 26, 1994). Representative Al Swift retired from his seat as chairman of the House Energy and Commerce Subcommittee on Transportation and Hazardous Materials, which is responsible for ratifying the Basel Convention. *Id.* Furthermore, the Environment and Public Works Subcommittee on Superfund, Recycling, and Solid Waste Management—the Senate panel responsible for ratifying the Basel Convention—received a new chairman when the Republican Party gained a majority and took control of the Senate. Given the complicated issues and the unresolved matters relating to the March 25 decision, any action on the Basel Convention will be delayed until the new chairmen familiarize themselves with the issues. *Id.*

183. The U.S. Chamber of Commerce thought that the goal of the Basel Convention was to "address trade and environmental protection" at the same time. The Chamber of Commerce believed that the United States annual $2.2 billion in commodities trading would be adversely affected by the March 25 decision because it would extend the Convention to recoverable scrap metals, which are actively traded in the commodities market. Morgan E. Goodwin, *Chamber Reverses Basel Position; U.S. Chamber of Commerce no Longer Endorses Basel Convention on Hazardous Waste Transportation and Disposal*, AM. METAL MARKET, June 1, 1994, at 9.

the export market, with the interests of industrialized nations, which wanted the export markets to remain viable.[184] By prohibiting the export of waste to non-OECD states, the March 25 decision has alienated industrialized nations, such as the United States, that want the markets to remain open.

The proposed legislation regarding the Basel Convention should contain incentives for United States industry to reduce its generation of hazardous waste. Under the Clinton proposal, industry is given five years to retrofit its equipment to prepare for the complete ban proposed by the President.[185] The technology to reduce the generation of hazardous waste is already available,[186] but industry lacks the incentive to make this important and expensive change. Two possible incentives for industries to install the new technology are extending liability for hazardous waste generators extraterritorially and providing tax breaks for businesses that retrofit their plants.[187] As politically unpalatable as incentives might be, achieving the Basel Convention's goal of reducing hazardous waste generation requires that any proposed legislation contain incentives for United States industry to achieve these reductions.[188]

IV. THE PROBLEM OF ENVIRONMENTAL RACISM

A. *Overview*

The United States, one of the world's largest industrialized nations, generates several hundred million metric tons of

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184. Obstler, *supra* note 42, at 94.

185. Allen, *supra* note 169.

186. The U.S. Office of Technology Assessment reported in 1986 that the United States could cut its hazardous waste generation in half in five years. Unfortunately, the generation of hazardous waste has continued to grow steadily at the rate of five percent a year. Fogel, *supra* note 20, at 19.

187. Peter Obstler argues that the extraterritorial application of CERCLA liability would solve the problem of hazardous waste exporting. Obstler, *supra* note 42, at 103; *see supra* notes 49-50 and accompanying text (noting that CERCLA liability does not extend extraterritorially). Using the same reasoning, industries would reduce their hazardous waste generation if their exposure to liability for improper disposal extended outside of the United States.

188. In order to achieve the reduction in hazardous waste generation called for by the Basel Convention, U.S. industry, as the number one generator of hazardous wastes in the world, will have to install new technology to reduce the hazardous waste. Legislation requiring such technology will be unpopular with U.S. industries because it will require them to invest some of their resources in environmental controls.

hazardous waste each year.[189] Yet in 1992, only around 145,000 tons were exported from the United States, less than one percent of all the waste generated that year.[190] As a result, the United States must find domestic sites for the disposal of over ninety-nine percent of the waste generated each year. Hazardous waste disposal sites have become increasingly scarce, however, as many existing sites are filled to capacity or closed because of dangerous storage practices.[191]

Hazardous waste disposal sites near residential communities are often deemed "locally undesirable land uses," or LULUs.[192] Such disposal sites are called LULUs because the costs of the sites are borne locally, while the rest of society enjoys the benefits.[193] The people living closest to the sites often suffer increased health problems, pollution and congestion, declining property values, and community stigmatization.[194] Meanwhile, society as a whole enjoys the benefit of the removal and disposal of its hazardous waste. The complaints of those disproportionately affected by LULUs have become so common that they are often referred to as the "not in my backyard," or NIMBY, opposition.[195] Given current industry practices and technology levels, however, the waste must be placed somewhere.

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189. A conservative estimate of the amount of hazardous waste generated by the United States annually is 238 million tons. Zuckoff, *Waste Letter, supra* note 21.

190. Allen, *supra* note 169. According to Carol Browner, Administrator of the EPA, "The U.S. exports only a fraction of a percent of our hazardous waste, but that fraction adds up to a significant amount. The current policy puts people in other countries at risk of dangerous exposures to toxic materials. That has to stop." *Id.*

191. *See* Handley, *Hazardous Waste Exports, supra* note 22, at 10,172.

192. Vicki Been, *What's Fairness Got to Do With It? Environmental Justice and the Siting of Locally Undesirable Land Uses*, 78 CORNELL L. REV. 1001 (1993).

193. *Id.* at 1001-02. Some commentators argue that local communities will benefit from the siting of hazardous waste facilities nearby because of new jobs. Increased employment opportunities in these situations are often illusory, however. Westinghouse, which owns and operates a waste-to-steam facility in Chester City, Pennsylvania, presented a similar argument in support of its waste facility. A brief look at the 100 employees at the Westinghouse facility reveals that only thirty-eight percent of the maintenance jobs and twenty percent of the management jobs at the plant were held by residents of Chester City. The facility has failed to make any real impact on the unemployment rate in Chester City. Matthew P. Weinstock, *Tired of Being Dumped On—Environmental Justice*, 56 OCCUPATIONAL HAZARDS 4, 48 (1994).

194. *See* MICHAEL R. EDELSTEIN, CONTAMINATED COMMUNITIES: THE SOCIAL AND PSYCHOLOGICAL IMPACTS OF RESIDENTIAL TOXIC EXPOSURE 17-117 (1988).

195. Stephen C. Jones, *Inequities of Industrial Siting Addressed*, NAT'L L.J., Aug. 16, 1993, at 20.

The problem of environmental racism[196] arises when decisionmakers choose disposal sites based on factors other than the equal distribution of the site's benefits and burdens. Often, a location for a site is chosen solely on the basis of which neighborhood is the least likely to present effective opposition to its selection as a disposal site.[197] Empirical evidence suggests that such neighborhoods typically are comprised largely of minorities and the poor.[198] Thus, the cause of environmental justice has been undertaken on behalf of those people historically without political power.

B. *The Warren County PCB Protests*

The environmental justice movement first gained attention throughout the United States in 1982 in Warren County, North

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196. The Reverend Benjamin Chavis, who first coined this phrase in 1987 while Executive Director of the United Church of Christ's Commission on Racial Justice, defines environmental racism as "racial discrimination in policymaking, the unequal enforcement of environmental regulations and laws, the deliberate targeting of communities of people of color for toxic waste facilities and the official sanctioning of the life-threatening presence of poisons in minority communities." HARRIS DEVILLE & ASSOCIATES, *Catch Word or Catch 22,* 9 LA. IND. ENVTL. ADVISOR 6 (1994).

In April 1993 the Reverend Chavis, the most vocal proponent of the environmental racism movement, was named Executive Director of the National Association for the Advancement of Colored People (NAACP), the oldest civil rights organization in the United States. However, Chavis' tenure as Executive Director was brief and much of his term at the NAACP was dominated by issues unrelated to environmental racism. Amid controversy, the NAACP asked Reverend Chavis to step down from his position on August 20, 1994. Reverend Chavis continues to be an active participant in the environmental racism movement, however. Marianne Lavelle, *Greens and Companies Lose Leader; Did NAACP's Ben Chavis Switch Sides, or Work to Bring Opponents Together?,* NAT'L L.J., Sept. 5, 1994, at A1.

197. The following excerpt came from a report on the siting of incinerators in the Los Angeles area:

> Certain types of people are likely to participate in politics, either by virtue of their issue awareness or their financial resources, or both. Members of middle or higher-socioeconomic strata . . . are more likely to organize into effective groups to express their political interests and views. All socioeconomic groupings tend to resent the nearby siting of major facilities, but the middle and upper-socioeconomic strata possess better resources to effectuate their opposition. Middle and higher-socioeconomic strata neighborhoods should not fall at least within the one mile and five mile radii of the proposed site.

J. Stephen Powell, Cerrell Associates, *Political Difficulties Facing Waste to Energy Conversion Plant Siting,* Report to the California Waste Management Board 42-43 (1984).

198. Been, *supra* note 192, at 1002-03.

Carolina.[199] The state government of North Carolina decided to place a polychlorinated biphenyl (PCB)[200] landfill in Warren County, whose residents were predominantly poor and black.[201] The state planned to deposit over 6,000 truckloads of cancer-causing, PCB-saturated soil in rural Warren County.[202] The truckloads were to contain 40,000 cubic yards of soil tainted by the illegal dumping of PCB-saturated oil on North Carolina roadsides in the 1970s.[203] In an attempt to prevent the placement of the hazardous waste site in Warren County, the United Church of Christ's Commission for Racial Justice helped organize a nonviolent, civil disobedience rally.[204] The Warren County rally culminated in over 500 arrests[205] and is recognized as the first national protest by African-Americans regarding the siting of a hazardous waste landfill.[206] Although the PCB landfill was ultimately located in Warren County, the protests succeeded in keeping other hazardous waste out of the area.[207] The Governor of North Carolina established a two-year moratorium on the siting of hazardous waste landfills in North Carolina, and

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199. *NIMBY*, *supra* note 2.

200. Polychlorinated biphenyls, or PCBs, are oil-based chemicals used by utilities as coolants in their transformers and other electrical equipment. In 1977, the EPA banned the manufacture and use of PCBs when it was determined that PCBs may cause cancer. Jim Ritter, *Edison Removes Most PCBs from Neighborhoods*, CHI. SUN TIMES, Dec. 5, 1994, at 11.

Recent studies conducted under the auspices of the National Academy of Sciences have found that PCBs actually are much more hazardous to human health than previously realized. Studies of fish caught in the PCB-contaminated waters of Puget Sound found 1000 times as many alterations in the fish's DNA as in the fish from clean water off the Oregon coast. Researchers believe that the greater the damage to the DNA, the more likely the organism will develop cancer. Jane Kay, *Stronger DNA Link to Cancer Uncovered; PCBs Can Inflict Serious Damage, Study Finds*, S.F. EXAMINER, Dec. 19, 1994, at A1.

201. THE UNITED CHURCH OF CHRIST COMMISSION FOR RACIAL JUSTICE, TOXIC WASTES AND RACE IN THE UNITED STATES: A NATIONAL REPORT ON THE RACIAL AND SOCIAL-ECONOMIC CHARACTERISTICS OF COMMUNITIES SURROUNDING HAZARDOUS WASTE SITES xi (1987) [hereinafter CRJ REPORT].

202. Craig Fluorney, *In the War for Justice, There's No Shortage of Environmental Fights*, DALLAS MORNING NEWS, July 3, 1994, at 8J.

203. William Woltz, *Citizens Push for Landfill Detoxification Legislation*, HERALD-SUN (Durham, NC), Nov. 19, 1994, at A11.

204. *Id.*

205. CRJ REPORT, *supra* note 201.

206. *NIMBY*, *supra* note 2.

207. Pamela Duncan, *Environmental Racism: Recognition, Litigation, and Alleviation*, 6 TUL. ENV'T L.J. 317, 328 (1993).

Warren County has not been targeted for future hazardous waste disposal.[208]

Perhaps more importantly, the demonstrations in Warren County provided the impetus for the first U.S. General Accounting Office (GAO) study of the racial and socio-economic composition of communities surrounding hazardous waste disposal sites.[209] Congressman Walter E. Fauntroy (D-D.C.), one of 500 protesters arrested in Warren County, and then-Congressman Jim Florio (D-N.J.) called for the GAO to study the connection between racial and economic characteristics and the location of hazardous waste facilities in the South.[210] Although the GAO study only focused on a small region in the South, it represented the first effort by the United States government to address the issue of hazardous waste landfill siting and the racial and socio-economic demographics of the surrounding communities.[211]

C. *The 1983 General Accounting Office Study*

In 1983, as a result of political pressure from the Warren County PCB Protests, the General Accounting Office (GAO) commissioned a study of four hazardous waste landfills in the southeastern United States to examine the racial and socio-economic characteristics of the residents in the surrounding communities.[212] The purpose of the regional study was to test the contention of the growing environmental racism movement that hazardous waste facilities were disproportionately located in poor, African-American neighborhoods.[213]

The GAO study examined the racial and socio-economic characteristics of the communities surrounding four landfill sites in Environmental Protection Agency (EPA) Region IV.[214] In three

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208. Jane Perkins, *Recognizing and Attacking Environmental Racism*, 26 CLEARINGHOUSE REV. 389, 391 (1992).

209. CRJ REPORT, *supra* note 201.

210. Kenneth J. Hollenbeck & Stephen J. Hudik, *Green Justice: Should the Poor Inherit the Polluted?*, N.J.L.J., June 6, 1994, at 10.

211. *Id.*

212. The four sites were Chemical Waste Management in Sumter County, Alabama; Industrial Chemical Company in Chester County, South Carolina; SA Services in Sumter County, South Carolina; and the Warren County PCB landfill in Warren County, North Carolina. U.S. General Accounting Office, *Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities*, GAO Pub. No. B-2111461, at 2 (1983) [hereinafter *Landfill Siting*].

213. *Id.*

214. The EPA has divided the United States into ten different regions. Richard Severo, *Method to Destroy Toxic PCB's is Tentatively Approved by U.S.*, N.Y. TIMES, May 27, 1981, at A15. The GAO study was limited to Region IV,

of the four communities, African-Americans comprised between fifty-two and ninety percent of the population, while African-Americans only accounted for twelve percent of the total U.S. population at that time.[215] At the fourth landfill site, African-Americans accounted for only thirty-eight percent of the population within one mile of the site.[216] However, when the radius of the study was expanded to include the population within four miles of the site, the percentage of African-Americans increased precipitously to between sixty-nine and ninety-two percent of the population.[217] Thus, the GAO study clearly established a link between race and the siting of landfills.

An examination of the economic characteristics of the surrounding communities revealed that between twenty-six and forty-two percent of the people residing near the four landfills were living on incomes below the poverty line.[218] Because fewer than sixteen percent of all U.S. citizens fall below the poverty line, the study established a second link between income and the siting of landfills. The 1983 GAO study supported Representative Fauntroy's contention that hazardous waste landfills tend to be located in communities with disproportionately large low-income, African-American populations.

Although the statistics uncovered by the GAO study were significant, commentators have claimed that the study was flawed because it looked at only four landfill sites in Alabama, North Carolina, and South Carolina.[219] Commentators note that the limited scope of the study precluded a showing of either a regional or a national pattern of inequitable siting.[220] However, the GAO study was never intended to establish a national or regional pattern of disproportionate siting.[221] Rather, it was a response to

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which covers the states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. *EPA: Agency Announces Appointments of Two Regional Administrators,* Daily Rep. for Executives (BNA) No. 232 d32 (Dec. 6, 1993).

215. *Landfill Siting, supra* note 212, at 4.

216. *Id.*

217. *Id.* at 3, app. 1.

218. In 1993, the poverty line for a family of four in the United States was $14,763. Approximately fifteen percent of all Americans had incomes below the poverty line in 1993. *Regarding Uruguay Round Implementing Legislation, 1994: Hearings before Senate Comm. on Commerce, Science and Transportation,* FED. NEWS SERV., Oct. 14, 1994 (prepared statement of Thomas R. Donahue, Secretary-Treasurer of the AFL-CIO).

219. Duncan, *supra* note 207, at 328 n.40.

220. *Id.*

221. "[The GAO study] was not designed to examine the relationship between the location of hazardous waste facilities *throughout the United States* and

a call from the Warren County PCB protests to look for a link between race, income, and the location of hazardous waste landfills. Although the GAO study did not bring about major changes in the selection of future landfill sites, the report successfully raised the issue of the disproportionate placement of hazardous waste sites and encouraged further study of the issue.[222]

D. *The Commission for Racial Justice Report*

In 1987, the United Church of Christ's Commission for Racial Justice (CRJ or Commission) became the next organization to study the relationship between race and the location of hazardous waste sites. Aware of the flaws in the GAO study that limited its utility,[223] the Commission sought to present "a comprehensive national analysis of the relationship between hazardous wastes and racial and ethnic communities."[224] Armed with EPA data and its own research, the Commission presented its report, *Toxic Wastes and Race in the United States.*[225] The report concluded that race was *the most significant factor* in the location of hazardous waste facilities.[226]

The CRJ report analyzed both off-site commercial hazardous waste facilities and uncontrolled toxic waste sites.[227] An off-site commercial hazardous waste facility is any facility that accepts hazardous waste from a third party for money, including landfills and incinerators.[228] Uncontrolled toxic waste sites are abandoned or closed sites that the EPA believes pose a health threat, and may include closed and abandoned dumps,

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the racial and socio-economic characteristics of persons residing near them." CRJ REPORT, *supra* note 201, at 3 (emphasis added).

222. Duncan, *supra* note 207, at 328 & n.40. "The GAO study was unique as one of the only studies to date on the relationship between race and toxics. . . ." The GAO study was also the predecessor to the 1987 Commission for Racial Justice Report. Charles Lee, *Toxic Waste and Race in the United States, in* RACE AND THE INCIDENCE OF ENVIRONMENTAL HAZARDS 12 (Bunyan Bryant & Paul Mohai eds., 1992) [hereinafter Bryant & Mohai].

223. "Nor, prior to our current report, had there been a study to ascertain whether the GAO finding was indicative of any national patterns. This report attempts to fill that void by presenting, for the first time, a comprehensive national analysis of the relationship between hazardous wastes and racial and ethnic communities." CRJ REPORT, *supra* note 201, at 3.

224. *Id.*

225. *Id.*

226. *Id.* at xv.

227. *Id.* at 9.

228. *Id.* at xii.

warehouses, and accidental spills.[229] The CRJ report examined the racial and socio-economic composition of those communities with off-site commercial hazardous waste sites and compared them to communities without hazardous waste sites.[230] The report concluded that "race was consistently a more prominent factor in the location of commercial hazardous waste facilities than any other factor examined."[231] Minorities were five times more likely to live in a community with an off-site commercial hazardous waste facility than to live in a community without one.[232]

With respect to uncontrolled hazardous waste sites, the CRJ report again found that race was the most significant factor in the location of those sites.[233] Four times as many minorities lived in communities with uncontrolled toxic waste sites than in communities without uncontrolled toxic sites.[234] Moreover, three out of every five African-Americans and Hispanic-Americans were shown to have lived in a community with an uncontrolled toxic waste site.[235] Therefore, not only are African-American communities selected more often for commercial facilities, but African-Americans also suffer a disparate impact from the placement of uncontrolled toxic waste sites.[236]

The CRJ report recognized several factors related to racial composition that were important in the siting decisions for hazardous waste facilities.[237] Three factors acknowledged by the Commission were: the surplus of inexpensive land in minority communities; minorities' lack of political organization and resources to oppose the facilities; and the immobility caused by poverty and discrimination that prevents minorities from moving away from hazardous waste facilities.[238] These factors, in

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229. *Id.* at 3-4.

230. Been, *supra* note 192, at 1010.

231. CRJ REPORT, *supra* note 201, at 15.

232. Edward P. Boyle, Note, *It's Not Easy Bein' Green: The Psychology of Racism, Environmental Discrimination, and the Argument for Modernizing Equal Protection Analysis*, 46 VAND. L. REV. 937, 969 (1993).

233. CRJ REPORT, *supra* note 201, at 18.

234. Boyle, *supra* note 232, at 968-69.

235. CRJ REPORT, *supra* note 201, at 13.

236. Duncan, *supra* note 207, at 332.

237. Paul Mohai & Bunyan Bryant, *Environmental Racism: Reviewing the Evidence*, *in* Bryant & Mohai, *supra* note 222, at 163.

238. *Id.* at 164. *See also* Robert W. Collin, *Environmental Equity: A Law and Planning Approach to Environmental Racism*, 11 VA. ENVTL. L.J. 495, 506-18 (1992).

addition to race, combine to create the phenomenon[239] known as "environmental racism."[240]

E. *The* National Law Journal *Report*

After the Commission for Racial Justice released *Toxic Wastes and Race in the United States*, a debate ensued as to whether the placement of hazardous waste sites was strictly a race issue or an economic one.[241] The 1983 GAO report had addressed both race and income in its four limited situations, but the 1987 CRJ report only looked at the racial composition of the communities surrounding hazardous waste sites in the United States. Another five years elapsed before a comprehensive report by the *National Law Journal* (*NLJ*) examined both race and income as they relate to hazardous waste disposal in the United States.[242]

In 1992, the *NLJ* issued a report that analyzed the EPA's record on nationwide enforcement of environmental laws.[243] This report was the first to focus on the role of the federal government in the areas of race and the environment.[244] In a "Special Investigation Issue," the *NLJ* reviewed every U.S. environmental lawsuit over a seven-year period and concluded that fines levied in white areas were significantly higher than those in minority neighborhoods.[245] First, comparing hazardous waste sites with the greatest surrounding white and minority populations, fines by the EPA were 500 percent higher in the white neighborhoods.[246] Second, fines assessed under the federal air, water, and waste pollution laws in white areas were found to be forty-six percent higher than in minority neighborhoods.[247] Under every type of U.S. environmental law, violations in minority neighborhoods consistently incurred significantly lower average penalties than violations in predominantly white areas.[248] Thus, minority

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239. Steven Keeva, *A Breath of Justice*, ABA J., Feb. 1994, at 91.

240. *Id.* at 90.

241. Duncan, *supra* note 207, at 334.

242. *See* Marianne Lavelle & Marcia Coyle, *Unequal Protection; The Racial Divide in Environmental Law*, NAT'L L.J., Sept. 21, 1992, at S1.

243. *NIMBY*, *supra* note 2, at 27-28.

244. John C. Chambers & Alyssa Senzel, *Our Racist Environment; Discrimination Leaves Mark in Site Choices*, LEGAL TIMES, Sept. 12, 1994, at S27.

245. Lavelle & Coyle, *supra* note 242, at S1 (in the *NLJ*'s "Special Investigation" Issue).

246. *Id.* Penalties in white areas averaged $335,565, while penalties in minority areas averaged only $55,318. *Id.*

247. *Id.*

248. Duncan, *supra* note 207, at 336.

communities are not receiving the same legal protection in the form of civil and criminal sanctions as white communities.[249]

After examining every toxic waste site in the twelve-year history of CERCLA,[250] the *NLJ* report also determined that the EPA takes more time and uses less effective methods to clean up hazardous waste sites in minority communities than in largely white communities.[251] The study showed that the EPA takes twenty percent longer to place on the National Priorities List (NPL) abandoned hazardous waste sites in minority communities than to do the same for abandoned sites in white neighborhoods.[252] Because of this delay, in more than half of the EPA regions across the country, CERCLA clean ups in minority neighborhoods begin twelve to forty-two percent later than they do in white communities.[253]

Moreover, once a CERCLA clean up begins, a disparity exists in the methods employed by the EPA.[254] The EPA can use either "containment" or "treatment" to deal with a hazardous waste site.[255] Treatment entails the removal or elimination of the hazardous waste from the site, which is the preferred course of

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249. Because fines are used to deter future violations, Robert Bullard, a legal scholar in environmental racism, argues that lower fines in minority communities may actually drive hazardous waste disposers into minority neighborhoods and allow violators to view these penalties as "a cost of doing business." Lavelle & Coyle, *supra* note 242, at S2.

250. CERCLA, or Superfund, has recently been accused of being slow and ineffective. Of the 1,292 "worst" hazardous waste sites on the Superfund National Priorities List (NPL), which the EPA has identified over the last fourteen years, only 237 of these sites (approximately eighteen percent) have been completely cleaned up. Of these 237 cleaned up sites, only sixty have been permanently removed from the NPL. Thus far, $10.8 billion of the Superfund has been spent and estimates project that the NPL will grow to include between 2,100 to 10,000 sites, thereby increasing costs exponentially. John Shanahan, *Superfund Status Quo: Why the Reauthorization Bills Won't Fix Superfund's Fatal Flaws,* HERITAGE FOUND. REP., No. 204, Oct. 3, 1994.

251. Lavelle & Coyle, *supra* note 242.

252. *Id.* Under CERCLA, the EPA ranks hazardous waste sites across the nation and prioritizes them according to the level of threat they pose to human health. Until a site is placed on the NPL, no action can be undertaken by the EPA to clean up the location. Accordingly, the longer it takes for a hazardous waste site to be placed on the NPL, the longer it takes for the site to be cleaned up under CERCLA. *See* ROGER W. FINDLEY & DANIEL A. FARBER, ENVIRONMENTAL LAW 534-35 (3d ed. 1991).

253. Lavelle & Coyle, *supra* note 242.

254. *Id.* The EPA has almost unfettered discretion with regard to which cleanup method will be used. This determination is entirely fact-based and varies from case to case. *See generally* CERCLA, *supra* note 49.

255. Lavelle & Coyle, *supra* note 242.

action under CERCLA.[256] Containment, on the other hand, only strives to confine or cap the hazardous waste.[257] The *NLJ* report discovered that in minority communities, the EPA chose containment procedures more frequently than treatment procedures, even though containment is the less preferred clean up method under the statute.[258] Conversely, in white communities, the EPA chose treatment much more frequently than containment.[259] Overall, the *NLJ* report showed a twenty-nine percent disparity in the clean up method relating to the racial composition of the neighborhood.[260]

Finally, the *NLJ* report concluded that race, not income, influenced the sanction selected by the EPA under hazardous waste laws.[261] Analyzing the correlation between average fines and annual income, the report found that the average penalties imposed by the EPA were actually three percent higher in the neighborhoods with the lowest median income.[262] While the *NLJ* report concluded that income does affect siting, penalties, and clean up methods, the report clearly demonstrates that race is the more important factor in these decisions.[263] As a result of the report, the environmental justice movement gained momentum and federal legislation was presented to deal with disproportionate siting of hazardous waste facilities.

F. *Current United States Policy*

After years of inaction, the United States government has begun to address environmental racism. On February 11, 1993, President Clinton issued Executive Order No. 12,898 on Environmental Justice, which was drafted with the guidance of

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256. Subsection 121(b) of CERCLA and the legislative history for the SARA Amendments express a "'preference' for 'permanent' solutions." (Superfund Amendments and Reauthorization Act (SARA), Pub. L. 99-499, 99th Cong., 2d Sess. (1986)). WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 735-36 (2d ed. 1994).

257. Lavelle & Coyle, *supra* note 242.

258. *Id.* Containment was chosen seven percent more frequently than treatment in minority communities. Containment is a less preferable remedial solution because the waste is not actually removed or neutralized, so it still poses a potential threat to the surrounding community. *Id.*

259. *Id.* Treatment was chosen twenty-two percent more frequently than containment when the EPA cleaned up sites in white neighborhoods. *Id.*

260. This disparity was calculated by adding the percentage differences between the techniques used in white and minority communities.

261. *Id.*

262. *Id.* The report revealed that areas with the lowest median income had average fines of $113,491, while neighborhoods with the highest median incomes had average fines of $109,606. *Id.*

263. Duncan, *supra* note 207, at 337.

the EPA.[264] The Executive Order on Environmental Justice requires all federal agencies to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States."[265] To achieve this end, the Executive Order creates a timetable by which each federal agency must create an "environmental justice strategy" designed to rectify agency programs or policies that cause a disproportionate impact on poor and minority communities.[266]

Specifically, the Executive Order creates an Interagency Working Group on Environmental Justice, led by the EPA Administrator. The Working Group is composed of the heads of several key departments, including the Departments of Defense, Labor, Health and Human Services, Housing and Urban Development, Justice, Interior, and Energy.[267] The goal of the Working Group is to assist the federal agencies in developing their "environmental justice strategies," to coordinate research and data collection among the various departments, and to hold public hearings to increase public access to the information gathered by the agencies.[268] These measures should prevent future incidents of environmental racism.

In addition to the executive branch,[269] the legislative branch has also reacted to the call for environmental equity. In the last

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264. Exec. Order No. 12,898, 59 Fed. Reg. 7629 (1994).

265. *Id.* § 1-101.

266. *Id.* § 103(a).

267. *Id.* § 1-102(a). Federal agencies have six months from the date of the Executive Order to submit an outline of their strategies and twelve months to submit a final draft of their respective strategies to the Working Group. During that twelve-month period, the agencies must also "identify several specific projects that can be promptly undertaken to address particular concerns identified during the development of the proposed environmental justice strategy. . . ." *Id.* §§ 1-103(a)-(e).

268. *Id.* § 1-102(b).

269. Prior to the Executive Order on Environmental Justice, Carol Browner, the administrator of the EPA, had already stated that environmental racism was one of her top priorities. Stephen C. Jones, *EPA Targets Environmental Racism*, NAT'L L.J., Aug. 9, 1993, at 28. She promised to "weave environmental justice concerns throughout all aspects of EPA policy and decision-making." EPA Administrator Carol M. Browner, Address at the District of Columbia Bar Association Luncheon, National Press Club (June 25, 1993). There have also been proposals to raise the EPA to a Cabinet position, increasing its importance in the administration. In light of this trend, the Clinton Administration appears to be actively involved in the environmental justice movement. Keeva, *supra* note 239, at 88.

year, at least nine different bills were presented to Congress addressing the issue of environmental racism.[270] The two most significant bills were the Environmental Justice Act of 1993 and the Department of Environmental Protection Act. The Environmental Justice Act of 1993[271] proposed an in-depth analysis to rank the nation's 100 most contaminated regions.[272] The bill then would provide technical assistance grants for groups in those communities, require comprehensive health surveys, mandate more detailed inspections of existing hazardous waste facilities, and create a moratorium on new sources of pollution in those areas.[273] This legislation would go a long way toward protecting those communities already affected from further harm. However, these measures would do little to protect presently uncontaminated neighborhoods from environmental racism.

The second important bill, the Department of Environmental Protection Act, was approved by the Senate on May 4, 1993.[274] In approving the Act, the Senate created the Office of Environmental Justice.[275] The Office of Environmental Justice must identify those regions subject to the greatest quantities of hazardous waste and designate those regions as "environmental high impact areas" (EHIA).[276] The Act also mandates further studies of the correlation between environmental risk and race.[277] Nevertheless, this Act suffers from the same reactive thinking that limits the effectiveness of the Environmental Justice Act. Instead of preventing future harm, the Department of Environmental Protection Act focuses on redressing past injustices. Although it is important to rectify those past harms, preventing future harms is equally important. Without preventive measures aimed toward all communities, not just those already contaminated, the problem of environmental racism will not be remedied.

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270. Rhona J. Kisch, *Putting Environmental Racism on the National Agenda?*, 24 ENVTL. L. 1171, 1182 n.51 (1994).

271. This Act was originally submitted in 1992 by then-Senator Albert Gore (D-Tenn.) and Representative John Lewis (D-Ga.). S. 2806, 102d Cong., 2d Sess. (1992); H.R. 5326, 102d Cong., 2d Sess. (1992). Jones, *supra* note 195, at 20 n.13. Congress did not pass the bill in 1992, and Representative Lewis reintroduced it in 1993. H.R. 2105, 103d Cong., 1st Sess. (1993). Chambers & Senzel, *supra* note 244. Senator Max Baucus (D-Mont.) has proposed the Senate version of this bill. S. 1161, 103d Cong., 2d Sess. (1994).

272. *NIMBY*, *supra* note 2, at 28.

273. *Id.*

274. S. 171, 103d Cong., 1st Sess. (1993).

275. Jones, *supra* note 195, at 20.

276. *Id.*

277. *Id.*

Commentators also have offered a variety of measures to alleviate the inequitable distribution of hazardous waste. These solutions include re-working and re-applying constitutional equal protection theory to remedy the problem;[278] applying Title VI of the Civil Rights Act of 1964[279] to prevent the discriminatory siting of landfills;[280] and expanding the Resource Conservation and Recovery Act (RCRA)[281] to ensure that future hazardous waste facilities are located more equitably.[282] However, other commentators contend that laws are ineffective tools for the task at hand and that we must find other means to combat environmental racism.[283]

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278. Boyle, *supra* note 232, at 938-40. As equal protection jurisprudence now stands, a plaintiff must show a disparate impact from the government's act—siting facilities only in minority neighborhoods—*and* a discriminatory intent on the part of the government—intentionally locating the site in an African-American neighborhood. *Id.* at 938. Because a plaintiff in an environmental racism case probably will not be able to prove the second prong of the test, Mr. Boyle suggest that equal protection analysis should be modified and expanded to include environmental racism cases. *Id.* at 940.

279. Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." 42 U.S.C. § 2000(d) (1988).

280. Jones, *supra* note 195, at 20. Title VI gives environmental racism plaintiffs the advantage of not requiring a showing of discriminatory intent, which is required under Equal Protection analysis. *Id.* In March 1993, Dr. Clarice Gaylord, the Director of the EPA's Office for Environmental Equity, may have opened the door for Title VI claims by stating that there is no legal precedent nor any EPA policy that would bar application of civil rights laws to the EPA. *Id.*

281. 42 U.S.C. §§ 6901-6991 (1988). Prompted by the "Love Canal" incident, the Resource Conservation and Recovery Act (RCRA) was enacted by Congress in 1976 in response to widespread concerns about the improper disposal of hazardous waste. 42 U.S.C. §§ 3251-3254(f), 3256-3259 (1988). Rachel D. Godsil, Note, *Remedying Environmental Racism*, 90 MICH. L. REV. 394, 401 (1991). RCRA creates a system based on permits and documentation to ensure that the enormous amount of hazardous waste generated each year in the United States is properly disposed. *See* FINDLEY & FARBER, *supra* note 252, at 231-39.

282. Godsil, *supra* note 281, at 424. Presently, RCRA only requires states to protect health and the environment. *Id.* Ms. Godsil suggests an amendment to RCRA that would require a national policy of environmental equity and state programs to ameliorate disproportionate siting. *See id.*

283. Luke W. Cole, Letter, *Remedies for Environmental Racism: A View from the Field*, 90 MICH. L. REV. 1991, 1996-97 (1992). Mr. Cole, a noted environmental racism attorney and activist, suggests that U.S. laws will never help the underrepresented poor and minority communities because they are only designed to work for the politically potent. *Id.* at 1995-96. Mr. Cole suggests that the solution to the problem of environmental racism is "grassroots activism," and

The variety and disparity of possible solutions suggest that no consensus exists on how to deal with the problem of environmental racism. The important first step of raising the issue publicly has already been accomplished. The government must now move forward to effectuate a change. The government must recognize that reactive measures will only prolong the problem of environmental racism. As evidenced by the long delays under the CERCLA framework, resolving hazardous waste problems takes a very long time once they exist. Proactive steps must be taken to ensure that the disproportionate siting that occurred in the past does not continue. The Clinton Administration's Executive Order on Environmental Justice is a step in the right direction, but enforcement of such an order will be difficult without supporting legislation from Congress. Congress, therefore, must enact proactive legislation if the problem of environmental racism is to be remedied.

V. ENVIRONMENTAL RACISM AS A MICROCOSM OF HAZARDOUS WASTE EXPORTATION

The problem of environmental racism may be viewed as a microcosm[284] of the problem of hazardous waste exporting. Hazardous waste exporting is just environmental racism on a global scale. The main similarity between the two is who shoulders the burden of living near and with the hazardous waste. Under each regime, the poor are forced to shoulder a disproportionate amount of national and global burdens. With the notable exception of Canada, the targets of hazardous waste exporting have been poor and developing nations,[285] primarily because disposal in these developing nations is less expensive as a result of less stringent, or non-existent, environmental regulations. Strict environmental regulations and a shrinking supply of landfill sites in the United States push the price of domestic disposal so high that it is cheaper to dispose of the waste in developing nations. As a result, the world's hazardous

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resort to the U.S. legal system should become a secondary strategy. *Id.* at 1996-97.

284. A microcosm is defined as: "1: a little world: a miniature universe . . .; 2: man or human nature believed to be an epitome of the world or the universe . . .; 3: *a community, institution, or other unity believed to be an epitome of a larger unity.*" WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1427 (1993) (emphasis added).

285. Porterfield & Weir, *supra* note 21, at 325.

waste rushes toward poor, developing nations, "[l]ike water running downhill."[286]

Domestically, studies have shown that poor communities in the United States suffer a disproportionate share of the national burden of hazardous waste. In a sense, the United States has been "exporting" its hazardous waste to its poor neighborhoods, just as industrialized nations have been exporting their waste to the poor and developing nations in Africa and the Caribbean.

Minorities constitute a second group that shoulders a disproportionate share of the pollution burden domestically and internationally. African nations were the original dumping grounds for industrialized nations until they took affirmative steps to ban hazardous waste imports in the Lome IV and Bamako Conventions.[287] The Organization for African Unity clearly viewed hazardous waste exporting as a racial issue when it called the transport of waste into Africa "a crime against Africa and African people."[288]

In the United States, several studies have reported a correlation between race and the location of hazardous waste sites. The GAO report in 1982 found that African-Americans constituted from fifty-two to ninety percent of the population surrounding three of the four landfills studied.[289] The Commission for Racial Justice report in 1987 found that race was the most significant factor in deciding the location of hazardous waste facilities.[290] Furthermore, the *National Law Journal* report in 1992 revealed that in minority neighborhoods, fines for improper disposal were lower and the EPA was slower to clean up the waste site.[291] Because the correlation between race and the location of hazardous waste sites is supported by stronger statistics than the correlation between income and the location of hazardous waste sites, many commentators have ignored the economic side of the problem. However, this conscious ignorance would be a mistake in light of the memorandum leaked from the World Bank,[292] which illustrates that income levels clearly have an effect on the location of hazardous waste facilities.

The other similarity between hazardous waste exporting and environmental racism is that both require the same remedies.

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286. *Id.* (quoting then-Representative James Florio).
287. *See* Brooke, *supra* note 30.
288. Shabecoff, *supra* note 125.
289. Landfill Siting, *supra* note 212, at 4.
290. CRJ REPORT, *supra* note 201, at xv.
291. Lavelle & Coyle, *supra* note 242, at S1.
292. *See supra* notes 4-13 and accompanying text.

The reduction of the overall generation of hazardous waste is clearly the most effective remedy for hazardous waste exporting. The preamble to the Basel Convention explicitly calls for a worldwide reduction in the generation of hazardous waste,[293] and later conventions build upon that premise. Similarly, the problem of environmental racism would be significantly reduced if the United States decreased its production of hazardous waste. Fewer landfill sites would be required, and fewer communities would be forced to live with hazardous waste in their neighborhoods. Given that it is technologically feasible to reduce waste generation in the United States by fifty percent over a period of five years,[294] the government must now supply the necessary incentives to induce industry to make the change. Indeed, the cost of these technological changes will be passed on to the consumer. However, they are costs that we cannot ethically avoid.

Reducing the amount of hazardous waste generated will not solve all of these problems, however. In order to ensure the equitable location of hazardous waste sites, generators must be forced to dispose of their hazardous waste where it is generated, if it is possible to do so in an environmentally sound manner. The Bamako Convention imposes such a restriction on the movement of hazardous waste within Africa.[295] A similar legislative restriction within the United States may reduce the exposure of poor and minority communities to off-site commercial hazardous waste disposal facilities. Restricted interstate movement will not prevent exposure to the generating facilities themselves, but the reduced transportation will limit exposure to accidental spills and landfills.

VI. CONCLUSION

Hazardous waste exporting constitutes environmental racism on a global scale. The only difference between the two problems is the final destination of the hazardous waste. Both hazardous waste exporting and environmental racism place a disproportionate burden on the poor and minorities, and both have similar remedies. The combined effect of the reduction in the generation of hazardous waste with the disposal of wastes

293. Basel Convention, *supra* note 69, at 675.
294. Fogel, *supra* note 20, at 19.
295. Shearer, *supra* note 18, at 153.

where they are generated will significantly alleviate, if not solve, both problems.

The recognition that environmental racism is the national embodiment of the global problem of hazardous waste exporting is crucial to the solution of both problems. In each situation, people are exploited because they are politically powerless. However, once they recognize the similarity of their causes, parties from both movements will be able to join together to capture more political power. Together, both movements will be able to end the disparity in the location of hazardous wastes in poor and minority communities.[296]

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296. *See id.* at 183.