WASTE TRADE AND DISPOSAL IN THE AMERICAS: THE NEED FOR AND BENEFITS OF A REGIONAL RESPONSE

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INTRODUCTION

"One of the major international environmental issues of today is the growing crisis of hazardous waste generation, and their transboundary movement, especially to developing countries."[1] While no exact figures on global hazardous waste generation exist, a 1990 estimate by the United Nations Environment Program (UNEP) stated that 300 to 400 million tonnes or more are generated each year.[2] The member states of the Organization for Economic Cooperation and Development (OECD)[3] generate between ninety and ninety-eight percent of this waste.[4] Every year, millions of tons of hazardous wastes cross national borders.[5]

Although the two dozen most industrialized nations produce almost all the world's hazardous waste, nearly every country in the world has been the recipient or proposed destination of another nation's hazardous waste.[6] The export of hazardous wastes can pose serious health and environmental

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1. GREENPEACE INT'L, ANNOTATIONS BY GREENPEACE INTERNATIONAL ON THE AGENDA OF THE MEETING: PREPARED FOR THE FIRST CONFERENCE OF PARTIES TO THE BASEL CONVENTION 2 (1992). Nongovernmental Organizations (NGOs), particularly Greenpeace, are regarded as a primary source of information on the hazardous waste trade. *See* J. Wylie Donald, *The Bamako Convention as a Solution to the Problem of Hazardous Waste Exports to Less Developed Countries*, 17 COLUM. J. ENVTL. L. 419, 441 & n.120, 455 (1992).

2. *See* GREENPEACE INT'L, *supra* note 1, at 2. Throughout this Article, "ton(s)" refers to the English measurement, while "tonne(s)" refers to the metric measurement. One English ton (2000 pounds) is equal to 1.016 metric tonnes, while one metric tonne (1000 kilograms) equals 0.984 English tons.

3. The OECD's member countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States of America. *See* THE STATESMAN'S YEAR-BOOK 36 (Brian Hunter ed., 133rd ed. 1996-97). Mexico, which joined the OECD relatively recently and is the only developing country within its membership, is not included in any of the statistics in this article on OECD waste generation and exportation.

4. *See* GREENPEACE, LATIN AMERICA: TOXIC DUMPING GROUND? 3 (Oct. 1993); *see also* Jim Puckett, *Dumping on Our World Neighbours: The International Trade in Hazardous Wastes, and the Case for an Immediate Ban on All Hazardous Waste Exports from Industrialized to Less Industrialized Countries*, *in* GREEN GLOBE YEARBOOK 1992 96 (1992).

5. *See* GREENPEACE INT'L, *supra* note 1, at 2.

6. *See* GREENPEACE INT'L, INTERNATIONAL WASTE TRADE 2 (1991).

risks for the receiving nation, particularly when it is a less developed country (LDC).[7] LDCs usually lack the funding, technical capabilities, and infrastructure to dispose of hazardous wastes properly.[8] Improper disposal can damage the local environment's air, water, and other natural resources. This, in turn, can present serious health risks to the local population, including neurological disorders, birth defects, skin ailments, and cancer.[9] LDCs' unique environments may also exacerbate the effects of improper disposal. For example, in LDCs with heavy tropical rains, landfilled wastes can leach into the soil and contaminate the groundwater supply.[10]

Furthermore, human contact with hazardous wastes is more problematic in LDCs, both for waste disposal workers and people living near hazardous waste sites. The mercury waste recycling that occurred in South Africa from the late 1970s until the early 1990s serves as the most acute example.[11] Thor Chemicals, Limited (Thor) in South Africa imported over 1000 tonnes of hazardous waste for mercury recycling from the United Kingdom, the United States, Italy, Brazil, and Indonesia.[12] Thor's workforce "was routinely subjected to unsafe levels of mercury so that chronic mercury poisoning among the workers became epidemic with 28% severely poisoned. . . . Two workers have died from mercury poisoning, another is in hospital comatose and an unknown number are severely impaired."[13] Residents around the Thor plant continued to swim, wash, catch fish, and drink water from rivers containing mercury levels 8,810 times the U.S. standard for hazardous waste.[14] This waste disposal process also caused extensive air pollution.[15] While Thor may be an extreme example of the harms that can accrue from the import of hazardous wastes to an LDC, it is telling nonetheless.

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7. *See* Jennifer R. Kitt, *Waste Exports to the Developing World: A Global Response*, 7 GEO. INT'L ENVTL. L. R. 485, 491 (1995).

8. *See id.* at 486; Donald, *supra* note 1, at 419.

9. *See* Donald, *supra* note 1, at 422-23.

10. *See* C. Russell H. Shearer, *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste*, 23 ENVTL. L. 141, 146 (1993).

11. *See* FRED KOCKOTT, EARTHLIFE AFRICA & GREENPEACE INTERNATIONAL, WASTED LIVES: MERCURY WASTE RECYCLING AT THOR CHEMICALS, WASTE TRADE CASE STUDY NO. 4 3-4 (1994). "This case represents the most horrifying case of international waste trade yet discovered by Greenpeace." *Id.* at 1.

12. *See id.* at 1.

13. *See id.*

14. *See id.* at 1, 4, 18. For U.S. standards on hazardous mercury wastes, see Identification and Listing of Hazardous Waste, 40 C.F.R. § 261, App. IX (1996); National Primary Drinking Water Regulations, 40 C.F.R. § 141.23 (1996); Water Quality Standards 40 C.F.R. § 131.36 (1996).

15. *See* Kockott, *supra* note 11, at 1, 18-19.

The Thor example also may serve to introduce the reasons behind the hazardous waste trade and arguments made by proponents of this trade. The need to dispose of domestically produced wastes outside of one's own borders is a relatively new phenomenon sparked by increased regulation, and thus increased cost, of waste disposal in OECD states.[16] Notwithstanding the dangers this form of disposal may pose for the environment and human health, proponents forward several arguments expressing the benefits of this practice: (1) the trade in hazardous wastes provides developing countries with much needed capital and jobs;[17] (2) hazardous waste recycling in LDCs can provide these countries with energy or manufacturing resources in a manner that benefits the environment;[18] and (3) waste is a type of good and its disposal is a type of service, both of which should be treated like any other good or service in the expanding world of free trade.[19]

All of these points have counter arguments. While trade in hazardous wastes provides jobs and capital, these jobs come at the expense of human health and even lives. The immediate capital received by importing states may fall far short of what is necessary to deal with the long-run social and environmental harms caused by the waste imports.[20] Moreover, hazardous waste recycling may create more problems than proper disposal, especially in nations without the resources or enforced obligation to recycle properly.[21] Finally, it is argued that hazardous waste and its disposal is too harmful to be treated like all other goods and services in the market.[22] These counter arguments, in themselves, demonstrate the need to address hazardous waste disposal issues as an international problem.

While the above shows that the transboundary movement and disposal of hazardous wastes is definitely a global concern, this Article presents the state of waste generation, trading, and disposal throughout the Americas

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16. *See* Kitt, *supra* note 7, at 487; Shearer, *supra* note 10, at 144.

17. *See* B. John Ovink, *Transboundary Shipments of Toxic Waste: The Basel and Bamako Conventions: Do Third World Countries Have a Choice?*, 13 DICK. J. INT'L L. 281, 284 (1995). Hazardous waste imports provide LDCs with "the opportunity to earn substantial amounts of foreign exchange. Such earnings could go far to alleviate poverty and disease, building industries and infrastructure, and helping LDCs to become developed countries." Donald, *supra* note 1, at 447.

18. *See* Donald, *supra* note 1, at 449.

19. *See GATT: Trading Away the Environment*, GREENPEACE FACT SHEET (GREENPEACE).

20. *See* Bernard I. Logan, *An Assessment of the Environmental and Economic Implications of Toxic-Waste Disposal in Sub-Saharan Africa*, 25 J. WORLD TRADE 61 (1991).

21. *See* GREENPEACE, GREENPEACE'S POSITION WITH RESPECT TO THE TRADE IN RECYCLABLE WASTES: ANSWERS TO FREQUENTLY ASKED QUESTIONS, GREENPEACE TOXIC TRADE CAMPAIGN (1994).

22. *See generally* GREENPEACE, *supra* note 19.

(North, Central, and South America, and the Caribbean).[23] After analyzing both the international and the national measures taken to deal with the hazardous waste problem, this Article concludes that this area of environmental regulation needs a more effective and efficient system of control.[24] A possible course of action for the Americas is proposed: the establishment of a regional agreement.[25] This agreement would best serve the specific needs of the entire region, and it may provide the most favorable hope of immediate action and agreement on hazardous waste issues in the Americas.[26]

I. THE CURRENT WASTE GENERATION AND DISPOSAL SITUATION IN THE AMERICAS

A. The United States: The World's Largest Waste Generator

The United States leads the world in the creation of hazardous waste, producing more than all other industrialized nations combined.[27] The United States generates over 200 million tons of hazardous waste each year.[28] While, the United States is not the world's leading waste exporter,[29] because the vast majority of U.S. waste is dealt with domestically,[30] it still ranks among the highest waste exporting nations. This status is the consequence of a number of factors ranging from costs, domestic regulations, and simply the sheer volume of waste produced nationally.[31] The disposal of the tremendous quantity of hazardous waste produced in the United States has affected almost every nation in the Americas.

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23. *See infra* Part II.

24. *See infra* Parts III-IV.

25. *See infra* Part V.

26. *See infra* Part V.

27. *See* Mitchell Zuckoff, *A River of Waste From Rich Nations Flows to the Poor*, BOSTON GLOBE, July 12, 1994, at 10.

28. *See id.*

29. Germany leads the world in exporting hazardous waste. *See* JIM PUCKETT, GREENPEACE, THE BASEL BAN—THE PRIDE OF THE BASEL CONVENTION 5-6 (Sept. 1995).

30. *See* JUDY CHRISTRUP, GREENPEACE, RETURN TO SENDER: CLAMPING DOWN ON THE INTERNATIONAL WASTE TRADE 8 (Nov.-Dec. 1988).

31. *See id.*

1. Disposal Capabilities Within U.S. Territories and the Impact of National Legislation

Even with its massive production of hazardous waste, the United States apparently possesses the physical capabilities to dispose of all its waste within its own borders.[32] According to the Environmental Protection Agency (EPA), the United States already has more than double the incineration capacity needed for the hazardous wastes it now generates.[33] While incineration is not necessarily the only, or the preferred, manner of dealing with hazardous wastes, current incineration capabilities in the United States indicate that U.S. hazardous wastes are not disposed of in other nations out of necessity. Nevertheless, a combination of stricter regulations and rising costs (with the former usually fueling the latter) have led the United States to export millions of tons of hazardous waste.[34]

The U.S. public, increasingly "alarmed at the dangers of ocean dumping, landfilling, and incineration of wastes, has responded . . . by preventing the siting of waste-disposal facilities and operations on their own territory."[35] Public pressures have broadened the definitions and enhanced the monitoring of hazardous wastes. For example, environmental legislation forced the closure of 2700 U.S. landfills in the 1980s alone,[36] banned ocean incineration, and prohibited the landfilling of a large number of wastes in the United States.[37] Therefore, while it is possible that the United States could dispose of all its wastes within its own borders, there may be a disparity between the United States' potential disposal capacity and its available disposal capacity.

Additional laws, imposing more requirements for environmental protection and stricter liability for damages from illegal waste disposal, have greatly increased disposal costs. The cost of landfilling a ton of hazardous waste in the United States jumped from $15 per ton in 1980 to between $300 and $1000 per ton in 1990, while hazardous waste incineration in 1989 cost $1500 per ton.[38]

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32. *See* FERNANDO BEJARANO, GREENPEACE MEXICO, ARGUMENTOS PARA UNA PROHIBICIÓN TOTAL DE LA IMPORTACIÓN DE DESHECHOS PELIGROSOS EN MÉXICO 7 (June 1994). Environmental Protection Agency Administrator Carol Browner has herself made this assertion. *See id.*

33. *See* JOE THORNTON, GREENPEACE, HAZARDOUS WASTE INCINERATION: IMPACTS ON AGRICULTURE, GREENPEACE TOXICS CAMPAIGN 2 (2d ed. 1993).

34. *See* Kitt, *supra* note 7, at 487; *see also* Shearer, *supra* note 10, at 144.

35. PUCKETT, *supra* note 29, at 94.

36. *See id.* at 94-95.

37. *See id.* at 95.

38. *See id.*; *see also* GREENPEACE, *supra* note 4, at 3.

This combination of stricter regulations and rising costs provides the basis for the increase in hazardous waste exports from the United States. Waste generators throughout the world increasingly have turned to "cheap . . . options, such as ocean dumping and exporting hazardous wastes to other nations, especially developing countries."[39] Hazardous waste has been said to follow a "path of least resistance"—both political and economic resistance.[40] For example, this could certainly explain the U.S. steel industry's export of K061 dusts to Mexico.[41] "For the U.S. steel industry, the export of K061 toxic dusts to Mexico represents a savings: it is much cheaper to process the wastes there. . . . Th[e] price is also more than 10 times less expensive than chemical stabilization and landfilling of the toxic waste in the United States."[42]

2. United States' Waste Exports to Mexico and Canada

At least since the mid-1980s, when elaborate waste trade agreements were reached with Mexico and Canada,[43] the United States has sent most of its waste exports to its two border neighbors. Under these waste trade agreements, by 1992 eighty percent of U.S. waste exports went to Canada and Mexico, and by 1994 up to ninety-seven percent of all U.S. hazardous waste exports were destined for those two countries.[44] Mexico requires U.S. waste exporters to obtain its prior written consent before shipping wastes, while Canada assumes consent unless an objection is made.[45]

U.S. hazardous waste shipments to Mexico increased 700% from 1987 to 1992 rising from 10,000 tons to over 70,000 tons.[46] Of the 208 hazardous waste export proposals emanating from the United States from

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39. GREENPEACE INT'L, *supra* note 1, at 3.

40. PUCKETT, *supra* note 29, at 94.

41. K061, an emission control dust from the primary production of steel in electric furnaces, is a listed hazardous waste under the Resource Conservation and Recovery Act (RCRA). *See* 40 C.F.R. § 261.32 (1996).

42. GREENPEACE, *supra* note 4, at 13.

43. *See, e.g.*, Agreement Concerning the Transboundary Movement of Hazardous Waste, Oct. 28, 1986, U.S.-Can., T.I.A.S. No. 11099; Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area, Aug. 14, 1983, U.S.-Mex., 35 U.S.T. 2916; North American Agreement on Environmental Cooperation Between the Government of the United States of America, the Government of Canada, and the Government of the United Mexican States, Sept. 13, 1993, 32 I.L.M. 1480.

44. *See* GREENPEACE, TOXIC TRADE UPDATE NO. 5.2 8 (1992).

45. *See* GREENPEACE, TOXIC TRADE UPDATE NO. 7.1 23 (1994).

46. *See* BEJARANO, *supra* note 32, at 7.

1989 through 1993, fifty-three named Mexico as the receiving nation.[47] Almost none of these proposed shipments were rejected and almost all of them received the EPA's consent.[48] Mexico was the primary destination for waste batteries from the United States, until its importing facility, Alco Pacífico, closed.[49] Before 1994, however, the majority of U.S. wastes shipped to Mexico was KO61 steel dust which was sent to the Zinc Nacional Plant for zinc recycling.[50] Some environmentalists have called this waste trade unnecessary since Mexico is the world's sixth largest producer of zinc.[51] While most of the known U.S. waste exports sent to Mexico under proposals come under a Zinc Nacional type of recycling plan, there have been two relatively recent cases of plain disposal or dumping.[52]

Unlike Mexico, Canada did not experience a large increase in waste shipments from the United States. Instead, Canada consistently has received an amount of U.S. waste that is more or less the same as that currently being received by Mexico.[53] Much of this waste goes to Stablex, a landfill located in Quebec, Canada, which is the largest foreign disposal site for U.S. waste.[54] Canadian law permits Stablex to accept up to 100,000 tons of waste per year.[55] Other recycling or disposal plans for U.S. wastes have been proposed in Canada. For example, a group of companies has proposed constructing an incinerator in Newfoundland that would burn 3500 tons of New York's garbage daily.[56]

3. United States' Waste Exports to Latin America and the Caribbean

Since hazardous waste trading began, the geographically proximate Central and South American regions and the Caribbean region have been easy choices as destinations for U.S. waste. One of the most well-known

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47. *See* PAUL HELLER, GREENPEACE, DATABASE OF KNOWN HAZARDOUS WASTE EXPORTS FROM OECD TO NON-OECD COUNTRIES: 1989-MARCH 1994 II-2, IV-133-42 (1994). A waste trade export scheme is a proposal to dispose of, recycle, or make further use of waste in another country. *See id.* at II-1.

48. *See id.* at IV-133-42.

49. *See* GREENPEACE, LEAD ASTRAY: THE POISONOUS LEAD BATTERY WASTE TRADE 5 (Mar. 1994).

50. *See* HELLER, *supra* note 47, at IV-133-42.

51. *See* BEJARANO, *supra* note 32, at 9.

52. *See* HELLER, *supra* note 47, at IV-142.

53. *See* BEJARANO, *supra* note 32, at 6.

54. *See* GREENPEACE, *supra* note 49, at 17.

55. *See id.* Stablex is said to "routinely exceed[] its annual permitted acceptance of 100,000 tons of waste." *Id.*

56. *See id.*

international waste trading events was "[t]he infamous saga of the *Khian Sea*." The *Khian Sea*, a ship with almost 14,000 tonnes of Philadelphia's toxic municipal incinerator ash, attempted to dispose of its cargo in at least seven countries in the Latin American and Caribbean region.[57] The ship departed from Philadelphia in August 1986 intending to dump its shipload on an island in the Bahamas.[58] After this plan was thwarted, the ship looked for another place in the Caribbean to leave its cargo.[59] On October 26, 1987, Haiti's Department of Commerce issued an import permit to the *Khian Sea* for what it believed was fertilizer.[60] The ash was dumped on a beach, but when the Haitian government discovered the actual nature of the shipment, it ordered the *Khian Sea* to remove the waste.[61] Instead, the ship left 2000 to 4500 tonnes of its shipload on the beach and departed on a year long search for a recipient of its cargo.[62] After being rejected in several other countries, including Bermuda, Chile, Costa Rica, Dominican Republic, Haiti, and Honduras, it is believed that the cargo was finally unloaded somewhere in the Indian Ocean.[63] "As for the ash that was dumped in Haiti, it remains on the Caribbean island, contaminating the air, land and sea each time the wind blows or the rain falls."[64]

Even though the United States' North American neighbors receive the vast majority of U.S. waste exports, the *Khian Sea* is not an isolated incident of U.S. waste trading in the rest of the Americas. From 1989 to 1993, more U.S. waste export proposals were made for Latin America and the Caribbean than for almost all other regions of the world combined.[65] During that period, fifty-six proposals were made for nineteen Central American, South American, and Caribbean countries.[66] Most of these proposals were rejected or abandoned, but several were completed, are on-going, or have yet to be decided upon.[67]

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57. *See* GREENPEACE INT'L, *supra* note 6, at 1-2.

58. *See id.*

59. *See id.*

60. *See id.*

61. *See id.*

62. *See id.* at 12; *see also* PUCKETT, *supra* note 29, at 93.

63. *See* GREENPEACE INT'L, *supra* note 6; *see also* PUCKETT, *supra* note 29, at 93.

64. GREENPEACE INT'L, *supra* note 6, at 2.

65. *See* HELLER, *supra* note 47, at II-6. This includes Mexico. *See id.*

66. *See id.* at IV-117-20, IV-123-28, IV-132, IV-142-45, IV-152-53. These countries include: Argentina, Belize, Bolivia, Brazil, Chile, Columbia, Costa Rica, Domican Republic, Ecuador, El Salvador, Grenada, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Uruguay, and Venezuela. *See id.*

67. *See id.*

One interesting example is the trade in U.S. waste batteries. After Asia, Latin America is the primary destination for lead battery waste coming from the United States.[68] When Mexico's facility for this waste (Alco Pacifico) closed, Brazil quickly began to pick-up where the Mexican company had left off.[69] In 1993 alone, Brazil received over 350,000 tons of scrap batteries.[70] In addition to providing Brazil with needed foreign capital, these shipments might present environmental benefits if properly recycled. Notwithstanding, lead acid batteries are considered to be very hazardous products, and most recipient countries like Brazil do not have adequate workplace and environmental safeguards. Neurological and metabolic disorders can result from acute or chronic exposure to lead, which is processed and released in significant quantities at battery recycling plants.[71] This poses a serious threat to the plants' workers, and can threaten persons and livestock living near such plants.[72] Waste battery processing plants also discharge other toxic contaminants that present additional health and environmental dangers, including arsenic, mercury, polyvinyl chloride, and sulfuric acid.[73]

Another interesting proposal involves the desired disposal of U.S. scrap tires. As of mid-1993, there were over three billion scrap tires stockpiled in dumpsites across the United States.[74] Since 1985, over a dozen proposals have been made for exporting scrap tires to Central American states, including Guatemala, El Salvador, and Honduras.[75] While all these proposals were rejected, this has not stopped U.S. waste exporters from attempting to convince Central American nations to import scrap tires.[76] Scrap tires imported into Central America would likely be incinerated, discharging into the environment noxious contaminants including cancer-causing compounds such as dioxins and furans.[77]

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68. *See* GREENPEACE, *supra* note 49, at 7. A loophole in U.S. law allows used batteries to be exported as a "commodity" and not as a hazardous waste. *See id.* at 6.

69. *See id.* at 5.

70. *See* HELLER, *supra* note 47, at IV-120.

71. *See* GREENPEACE, *supra* note 49, at 3.

72. *See id.*

73. *See id.* at 4.

74. *See* CONNIE MURTAGH & ERWIN GARZONA, GREENPEACE, WHEELS OF MISFORTUNE: A GREENPEACE TOXIC TRADE CAMPAIGN REPORT ON THE PLANNED EXPORT OF TIRE WASTE FROM TEXAS TO HONDURAS 1 (1993).

75. *See id.* at 4.

76. *See id.*; *see also* GREENPEACE, *supra* note 4, at 11-12.

77. *See* MURTAGH & GARZONA, *supra* note 74, at 5.

B. Wastes Generated in Other American States

Excepting the three North American states, the Americas are comprised of non-OECD states, many of which are rather underdeveloped. Reliable statistics on the amount of waste produced in these countries is difficult and often impossible to obtain. Yet, with twenty-four OECD states generating at least ninety percent of the world's hazardous wastes, it is unlikely that Latin America and the Caribbean produce a relatively large amount of such wastes. This is a useful point to remember when reviewing waste production in non-OECD states in the Americas.

1. Canadian and Mexican Hazardous Wastes

As an original member of the OECD, Canada contributes to the increasing production of hazardous wastes worldwide. This is reflected in the significant amount of hazardous waste that Canada has attempted to and has managed to export to other states. From 1989 through 1993, Canada ranked fourth among twenty-four OECD states in number of known hazardous waste export proposals and sixth in tonnes of hazardous wastes exported to non-OECD states.[78] While all of the known Canadian waste exports to non-OECD states went to Asian states, Canada is not obligated to maintain Asia as its choice destination for hazardous wastes. Thus, Canada eventually may export significant quantities of hazardous waste to other countries in the Americas.

Although Mexico joined the OECD in April 1994, raising OECD membership to twenty-five states,[79] Mexico is not included in any of the statistics on OECD waste production or exporting herein. There are no truly reliable statistics on the amount of hazardous waste produced in Mexico, particularly because there is still no national inventory on the wastes produced by Mexican industry.[80] Yet, according to the Mexican National Ecology Institute, an estimated 14,500 tons of hazardous wastes are generated daily in Mexico, resulting in a little more than 5 million tons of hazardous waste per year.[81] According to the most optimistic figures, Mexico has the capability to properly handle only ten percent of this

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78. *See* HELLER, *supra* note 47, at II-2 to 3.

79. *See* Robin Wright, *U.S. Urges OECD to Broaden Its Focus, Mandate Relations: At Annual Meeting in Paris, Mexico Becomes Group's First New Member in 20 Years*, L.A. TIMES, June 9, 1994, at D2.

80. *See* BEJARANO, *supra* note 32, at 1.

81. *See id.*

waste.[82] Most of Mexico's hazardous industrial waste is illegally disposed of in sewage systems, rivers, and desert areas, or by mixing it with solid municipal wastes.[83]

2. The Situation in the Rest of the Americas

There is generally no reliable information on hazardous waste production in Central and South American states and in Caribbean nations.[84] Like Mexico, the countries of these regions have not been able to invest serious resources in their environmental management, as they are predominantly developing nations, though a few are newly industrialized nations. Also, these states generally do not enjoy the ties to highly industrialized nations that Mexico gained through the OECD and the North American Free Trade Agreement (NAFTA). Nevertheless, it has been estimated:

> that 41,000 tons of dangerous industrial wastes are emitted daily in Latin America and that the region does not have the capacity to handle corrosive products and toxic and inflammable reagents which cause gene-altering disease, cancer and a variety of skin ailments. It is further estimated that the rural population disposes of 50 million tons daily of solid refuse and the urban population 180 million tons daily of municipal waste.[85]

The region's newly industrialized countries also may not properly manage the wastes they generate. For example, it is estimated that Brazil sends less than forty-five percent of its waste to controlled sites and landfills, with the majority of Brazilian wastes being disposed, without treatment, in open-air garbage dumps or in rivers and wells.[86] In the industrial Brazilian state of Sao Paulo alone, it is estimated that more than 80,000 tons of solid hazardous wastes are generated each year.[87] However,

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82. *See id.*

83. *See id.*

84. *See* Gonzalo Biggs, *Latin America and the Basel Convention on Hazardous Wastes*, 5 COLO. J. INT'L ENVTL. L. & POL'Y 333, 341 (1994).

85. F. Ortiz Monastero, *Prioridades de Medio Ambiente y Desarrollo en América Latina y el Caribe—Energía y Desarrollo Sostenible*, Report to UNEP, Inter-American Development Bank (Oct. 1989), *cited in Our Own Agenda*, Latin American and Caribbean Commission on Development and Environment, 1990, at 32, *reprinted in* Gonzalo Biggs, *Latin America and the Basel Convention on Hazardous Wastes*, 5 COLO. J. INT'L ENVTL. L. & POL'Y 333, 341 (1994).

86. *See* Biggs, *supra* note 84, at 342.

87. *See id.*

Sao Paulo has only three incinerators with the ability to handle up to 16,000 tons of waste per year.[88]

C. Latin America and the Caribbean as a Dumping Ground for Hazardous Wastes

After the Central and Eastern European region, the Latin American and Caribbean region receives more proposals for hazardous waste exports from OECD states than any other region in the world.[89] From 1989 through 1993, the Latin American and Caribbean region received 148 proposals from OECD states to receive hazardous waste shipments.[90] While over two-thirds of these proposals came from the United States, and many of those proposals were for shipments to Mexico (which was not an OECD member-state at that time), a significant number of proposals came from outside the Americas.[91] OECD states making these proposals included: Austria; Belgium; Denmark; Germany; Italy; Japan; Norway; Switzerland; and the United Kingdom.[92] Eleven of the region's states received these proposals: Argentina; Bolivia; Brazil; Ecuador; Guatemala; Haiti; Mexico; Nicaragua; Panama; Paraguay; and Venezuela.[93] While the majority of these proposals were rejected by the importing country or abandoned by the exporter, at least ten were accepted.[94]

The United Kingdom is the leading exporter to the Latin American and Caribbean region from outside of the Americas.[95] From 1989 through 1993, U.K. wastes were received in Brazil, Bolivia, Ecuador, Mexico, and Venezuela. One example of these U.K. exports was the shipment to Bolivia of 1200 tonnes of filter dusts from scrap tin processing.[96] These dusts also contained lead, zinc, sulfur, and high levels of arsenic.[97]

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88. *See id.*

89. *See* BEJARANO, *supra* note 32, at 2. "Almost every country in the Caribbean and Latin America has been targeted as a waste dumpsite for wastes from industrialized countries." GREENPEACE, supra note 4, at 5.

90. *See* HELLER, *supra* note 47, at II-4. This number may be inflated because it may include proposals which took place in multiple years. *See id.*

91. *See id.* at II-6.

92. *See id.*

93. *See id.* at IV-7, IV-13, IV-23, IV-32, IV-41-42, IV-73, IV-75, IV-77, IV-87,IV-97 to 98, IV-100, IV-106-107, IV-108, IV-116.

94. *See id.*

95. *See id.* at II-6.

96. *See id.* at IV-97; *see also* GREENPEACE, *supra* note 4, at 9-10.

97. *See* GREENPEACE, *supra* note 4, at 9-10.

Pressures from environmentalists and residents near its U.K. plant forced Capper Pass, a British company, to export these wastes rather than processing them domestically.[98]

It is debatable whether the Latin American and Caribbean region is an actual dumping ground for OECD waste, since the region accepted ten waste export proposals only for the purpose of recycling. Further, a majority of the waste import proposals were rejected by the recipient governments. Moreover, receiving wastes for recycling purposes could prove to be both economically and environmentally beneficial for the region. Notwithstanding, the Latin American and Caribbean region has made clear that it believes that there is a "growing threat of [it] becoming a kind of dumping ground for the industrialized countries."[99] This fear is understandable, especially if one considers the large number of proposals the region has already received, and the difficulties governments in many of these economically strained states face in deciding whether to accept these proposals.

II. THE ARRAY OF INTERNATIONAL AGREEMENTS ON WASTE DISPOSAL AND THEIR EFFECTIVENESS IN THE AMERICAS

The international community has taken a multitude of steps to deal with the problems associated with transboundary movements of hazardous wastes and waste disposal. Several treaties on this issue have been formulated, both on a global and on a regional level. The following is an analysis of the treaties addressing waste movements and disposal which have the most relevance to the Americas.

A. The London Dumping Convention

With all but two of the nations in the Americas surrounded or bordered by ocean waters, focusing only on the movement of wastes across land borders would ignore what may be a grave, and far less detectable,

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98. *See id.* at 9-10.

99. *Our Own Agenda*, Latin American and Caribbean Commission on Development and Environment, Inter-American Development Bank, and United Nations Development Programme, *reprinted in* ENVIRONMENT AND DIPLOMACY IN THE AMERICAS 98 (Heraldo Muñoz ed., 1992). The participants at the Seventh Ministerial Meeting on the Environment in Latin America and the Caribbean came to the conclusion that "the risk of receiving undesirable [waste] shipments in the region has increased, and the transit of such wastes . . . through the seas of the region is extremely dangerous." *Action Plan for the Environment in Latin America and the Caribbean*, Seventh Ministerial Meeting on the Environment in Latin America and the Caribbean, Port-of-Spain, Trinidad and Tobago, Oct. 22-23, 1990, *reprinted in* ENVIRONMENT AND DIPLOMACY IN THE AMERICAS 51, 58 (Heraldo Muñoz ed., 1992).

hazardous waste problem: disposal of hazardous wastes at sea. Any consideration of the management of hazardous wastes in the region requires an analysis of measures being taken to deal with this problem. The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, which was formed in London in 1972 and entered into force on August 30, 1975, is a principal global treaty for the prevention of marine pollution.[100] For many years, this Convention was generally referred to as the London Dumping Convention. Yet, in 1992, the contracting parties to the Convention agreed to change this name to the London Convention (LC) to better represent the Convention's move from a framework for controlled dumping to one of dumping prevention.[101]

1. Key Provisions of the Original Convention

In 1972, the contracting parties to the LC believed that immediate international action was needed to control the pollution of the seas due to dumping.[102] To this end, Article I of the Convention states that "Contracting Parties shall individually and collectively promote the effective control of all sources of pollution of the marine environment, and pledge themselves especially to take all practicable steps to prevent the pollution of the sea by the dumping of waste . . . ."[103] However, the 1972 Convention did not define exactly the terms "effective control" and "practicable steps."[104] Thus, the general responsibilities of the parties were left somewhat ambiguous.[105]

Nevertheless, through its three annexes, the Convention specifically laid out three types of pollutants or wastes, and the required method of controlling their disposal in the seas. First, pursuant to Article IV(1)(a),[106] the parties prohibited the marine disposal of chemicals and wastes listed in Annex I. [107] Second, pursuant to Article IV(1)(b),[108] the dumping at sea of

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100. 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 [hereinafter London Convention].

101. *See* Clifton Curtis, The London Convention and Radioactive Waste Dumping at Sea: A Global Treaty Regime in Transition 1 (June 1993) (unpublished manuscript on file with *Vermont Law Review*).

102. *See* London Convention, *supra* note 100, 26 U.S.T. at 2406, 1046 U.N.T.S. at 138.

103. *See id.*

104. *See id.* art III, 26 U.S.T. at 2407, 1046 U.N.T.S. at 140.

105. *See* JOHN H. BATES & CHARLES BENSON, MARINE ENVIRONMENTAL LAW 92 (1993).

106. London Convention, *supra* note 100, 26 U.S.T. at 2408, 1046 U.N.T.S. at 141.

107. The list includes: organohalogen, mercury, and cadmium and their compounds; persistent plastics and other persistent synthetic materials; oils; high-level radio-active wastes; and any materials produced for biological or chemical warfare. *See id.* Annex I, 26 U.S.T. at 2465, 1046 U.N.T.S. at 203.

wastes and substances listed in Annex II requires a "special permit."[109] Finally, the dumping of Annex III wastes and matter requires the receipt of a "general permit."[110] Annex III's general permit provisions include all wastes not covered by Annexes I and II.[111] The Convention called on contracting parties to designate appropriate authorities to assure adherence to the Convention's principles and to manage the permit system.[112]

2. LC Annual Consultative Meetings and the 1993 Amendments

The LC's greatest strength is its ability to change and address the latest issues concerning ocean dumping and the marine environment through annual Consultative Meetings.[113] Eighteen such meetings of the Convention's contracting parties have occurred since its entry into force in 1975.

While LC Consultative Meetings address a range of issues, one issue has taken on great importance: amending the Convention to prohibit the sea disposal of certain, if not eventually all, wastes. Various LC Consultative Meetings passed several resolutions to this end. For example, the Thirteenth Consultative Meeting passed a resolution calling for a ban on industrial waste dumping.[114] At earlier meetings, the parties approved a moratorium on the disposal at sea of radioactive wastes.[115] However, unless the Convention and/or its annexes is amended to include a resolution, this moratorium is not binding on any of the contracting parties.[116]

At the London Convention's Sixteenth Consultative Meeting (LC16), the contracting parties approved this type of binding amendment. The changes to the Convention include bans on the disposal at sea of industrial wastes and low-level radioactive wastes, and on incinerating wastes at

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108. *See id.* 26 U.S.T. at 2408, 1046 U.N.T.S. at 141.

109. The list includes wastes and materials containing significant amounts of the following matters and their compounds: arsenic; lead; copper; zinc; organosilicon; cyanides; fluorides; pseticides and any of their by-products not covered in Annex I; beryllium; chromium; nickel; vanadium; containers, scrap metal, and other bulky wastes; and radioactive wastes not included in Annex I. *See id.* Annex II, 26 U.S.T. at 2466, 1046 U.N.T.S. at 203.

110. *See id.* art. VI(1)(b), 26 U.S.T. at 2409, 1046 U.N.T.S. at 141.

111. *See id.* Annex III, 26 U.S.T. at 2467, 1046 U.N.T.S. 204.

112. *See id.* art. VI(1), 26 U.S.T. at 2409, 1046 U.N.T.S. at 141.

113. *See id.* art. XIV(4)(e), 26 U.S.T. at 2412, 1046 U.N.T.S. 144.

114. *See* Resolution LDC 43(13) (1990).

115. *See* Resolution LDC 35(11) (1988); *see also* Resolution 14(7) (1983).

116. *See* London Convention, *supra* note 100, art. XV(1)(a), 26 U.S.T. at 2413, 1046 U.N.T.S. at 144.

sea.[117] These changes to the Convention are significant in the international community's efforts to protect the marine environment, and it appears that further changes to the Convention may be forthcoming. After the LC16 Meeting, a spokesman for the LC's Secretariat said that at the Convention's 1996 meeting "the whole attitude to dumping as a means of disposal" would be considered.[118]

3. LC Enforcement and its Acceptance and Implementation in the Americas

The LC leaves enforcement to the individual and cooperative efforts of the contracting parties.[119] Enforcement of LC bans could be difficult if support is not widespread and inclusive of developed countries. Developed countries, after all, have more wastes to dispose and have greater resources for monitoring and enforcement. However, no state voted against the bans at LC16, and only the United Kingdom, France, Belgium, Russia, and China abstained.[120] The United States voted for the bans, which the Clinton Administration endorsed prior to LC16.[121]

U.S. support for the LC's provisions to-date is crucial in determining the potential effectiveness of the Convention in the Americas. With the support of the United States, the region's largest waste producer and exporter, it is very likely that the Convention could be successfully implemented in the Americas. Yet, one significant roadblock endangers implementation in the Americas. Although the United States ratified the LC even before the Convention entered into force,[122] only seventeen other states in the Americas have become parties to the Convention.[123] This leaves a large number of Latin American and Caribbean states outside the realm of the LC's commitments and responsibilities. This lack of

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117. *See London Convention Agrees to Ban Dumping of Radioactive Waste at Sea*, Int'l Env't Rep. (BNA) 839 (Nov. 17, 1993) [hereinafter *London Convention Agrees to Ban*].

118. *See id.*

119. *See* London Convention, *supra* note 100, art. VII, 26 U.S.T. at 2409-10, 1046 U.N.T.S. at 142.

120. *See London Convention Agrees to Ban*, *supra* note 117, at 839.

121. *See id.*

122. *See* London Convention, *supra* note 100, 26 U.S.T. at 2403; 1046 U.N.T.S. at 138.

123. *See* TREATIES IN FORCE: A LIST OF TREATIES AND OTHER INTERNATIONAL AGREEMENTS OF THE UNITED STATES IN FORCE ON JAN. 1, 1995, Department of State Publication 9433, July, 1995, at 379 [hereinafter TREATIES IN FORCE]. The eighteen American nations that are parties to the London Convention are: Argentina, Barbados, Belize, Brazil, Canada, Chile, Costa Rica, Cuba, Dominican Republic, Guatemala, Haiti, Honduras, Jamaica, Mexico, Panama, St. Lucia, Suriname, and the United States. *See id.*

overwhelming support for the London Convention weakens its full enforcement and implementation in the region.[124]

4. Regional Agreements Encouraged by the Convention

Article VIII of the London Convention states:

> In order to further the objectives of this Convention, the Contracting Parties with common interests to protect in the marine environment in a given geographical area shall endeavour, taking into account characteristic regional features, to enter into regional agreements consistent with this Convention for the prevention of pollution, especially by dumping.[125]

Thus, the LC clearly encourages pertinent regional agreements. At least two such agreements have been established in the Americas: the Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific (Lima Convention)[126] and the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Agreement).[127]

While some states may believe their membership in these regional conventions is a satisfactory substitute to their becoming parties to the London Convention, this is not what the LC contemplates in encouraging regional agreements. The introductory portion of the LC explicitly encourages nations to enter into regional agreements that are "supplementary" to the Convention.[128] Though states' memberships in independent regional agreements do not likely accomplish the objectives of the LC, two regional agreements affecting the Americas are briefly examined below.

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124. Furthermore, this does not consider the possibility of the Convention's provisions being violated by non-American states that are not parties to the Convention.

125. *See* London Convention, *supra* note 100, art. VIII, 26 U.S.T. at 2410, 1046 U.N.T.S. at 142.

126. Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific *reprinted in* 2 UNEP, SELECTED MULTILATERAL TREATIES IN THE FIELD OF THE ENVIRONMENT 130 (Iwona Rummel-Bulska & Seth Osafo eds., 1991) [hereinafter Lima Convention].

127. 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 [hereinafter Cartagena Agreement].

128. London Convention, *supra* note 100, 26 U.S.T. at 2406, 1046 U.N.T.S. at 140.

B. The Lima Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific

On November 12, 1981, five American states, Chile, Columbia, Ecuador, Panama, and Peru, adopted the Lima Convention.[129] The opening portion of this Convention states that one of the reasons for its formation is "that the various international agreements concerning marine pollution which are in force, despite all the progress achieved, do not cover all types and sources of pollution and do not completely satisfy the needs and requirements of the countries of the region."[130] This Convention goes on to cover a number of matters in its effort to protect a broad geographic expanse of the sea and the coastal area of the South-East Pacific.[131] The Lima Convention seeks to minimize both pollution by dumping and pollution from any other source, including land-based sources, vessels, installations, and accidents.[132]

The enforcement provisions of the Lima Convention, however, do not appear as strong as its other provisions. Article 7 requires that contracting parties establish monitoring programs directly or in collaboration with other international organizations.[133] However, individual parties' participation in international monitoring is left open-ended.[134] This monitoring provision simply asks that parties participate "to the extent feasible" without making any additional specifications.[135] The Convention also does not provide a liability or compensation scheme, but instead states that the contracting parties "shall endeavour" to formulate procedures for determining liability and compensation.[136] Under Article 13, financing for the Convention's Secretariat is also left open for future decision.[137]

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129. *See* Biggs, *supra* note 84, at 361.
130. *See* Lima Convention, *supra* note 126, at 130.
131. *See id.*
132. *See id.* art. 4, at 131.
133. *See id.* art. 7, at 132.
134. *See id.*
135. *See id.*
136. *Id.* art. 11(1), at 133.
137. *See id.* art. 13.

C. The Cartagena Agreement for the Protection and Development of the Marine Environment of the Wider Caribbean Region

Signed in Cartagena, Columbia on March 24, 1983, the Cartagena Agreement went into force on October 11, 1986.[138] Currently, eighteen countries are parties to the Agreement: Venezuela; Columbia; Panama; Guatemala; Mexico; the United States; nine Caribbean island states; and three European nations with territories in the Caribbean.[139]. This still leaves a number of Caribbean island states and states whose coasts lie in the Caribbean Sea outside the terms of the Cartagena Agreement.

It is interesting that many states in the Caribbean region have chosen not to become parties to this agreement, since the Cartagena Agreement, much like the Lima Convention, begins by asserting that "international marine pollution agreements already in existence . . . do not cover all aspects of environmental deterioration and do not entirely meet the special requirements of the wider Caribbean region."[140] The Agreement then directly addresses various sources of marine pollution including pollution from ships, from dumping, from land-based and airborne sources, and from sea-bed activities.[141] The Agreement also includes a protocol on the parties' cooperative efforts in combating and responding to oil spills in the wider Caribbean region.[142] The Agreement designates the United Nations Environment Programme (UNEP) to carry out certain secretariat functions under the Agreement,[143] with expected cooperation of the International Maritime Organization (IMO) under the protocol on oil spills.[144]

Here again, the Agreement sets forth no specific scheme on liability and compensation. [145] Nevertheless, provisions exist for the settlement of

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138. Cartagena Agreement, *supra* note 127, T.I.A.S. No. 11,085 at 1.

139. *See* TREATIES IN FORCE, *supra* note 123, at 380. The nine Caribbean island states that are parties are Antigua & Barbuda, Barbados, Cuba, Dominica, Grenada, Jamaica, St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago. *See id.* The non-American parties include France, the Netherlands, and the United Kingdom, and with their participation the agreement also applies to Aruba, Netherland Antilles, British Virgin Islands, Cayman Islands, and Turks and Caicos Islands. *See id.*

140. Cartagena Agreement, *supra* note 127, T.I.A.S. No. 11,085 at 5, 22 I.L.M. at 227.

141. *See id.* arts. 5-9, T.I.A.S. No. 11,085 at 7-8, 22 I.L.M. at 229.

142. *See* Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region, Mar. 24, 1983, T.I.A.S. No. 11,085, at 60, 22 I.L.M. 240 [hereinafter Protocol].

143. *See* Cartagena Agreement, *supra* note 127, art. 15, T.I.A.S. No. 11,085 at 10-11, 22 I.L.M. at 237.

144. *See* Protocol, *supra* note 142, art. 9, T.I.A.S. No. 11,085 at 64, 22 I.L.M. at 243-44.

145. *See* Cartagena Agreement, *supra* note 127, art. 14, T.I.A.S. No. 11,085 at 10, 22 I.L.M. at 231.

disputes between contracting parties.[146] Moreover, the parties to the Cartagena Agreement contract to cooperate and to assist each other directly in fulfilling their obligations under this Agreement.[147] This includes the assistance of the five OECD states that are parties to the Agreement.[148] The effect of this cooperation or assistance has been uncertain. For example, since 1985, dozens of shipments of nuclear wastes have been shipped between Japan and Europe via the Panama Canal and the Caribbean Sea.[149] These dangerous shipments pose notable environmental risks to the areas through which they travel, and several objections have been raised to these shipments, including a joint declaration by the heads of state of the Caribbean Economic Community.[150] Yet, "[s]hipments of spent nuclear fuel, plutonium, and high level waste are scheduled to increase."[151]

D. The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal

The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (Basel Convention),[152] was drafted under the auspices of UNEP, with the intent of establishing a global convention on transboundary waste movements.[153] The Basel Convention was adopted on March 22, 1989 and entered into force on May 5, 1992.[154] Eighty states are parties to the Basel Convention,[155] and, as a global convention, it is open for accession by any state.[156] The Basel Convention serves as the global response to the growing problems associated with the transboundary movement of hazardous wastes.[157]

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146. *See id.* art. 23, T.I.A.S. No. 11,085 at 14-15, 22 I.L.M. at 234-35; Annex I, T.I.A.S. No. 11,085 at 19-21, 22 I.L.M. at 238-40.

147. *See id.* arts. 4(5), 13, T.I.A.S. No. 11,085 at 7, 9-10, 22 I.L.M. at 228, 230-31.

148. The five OECD states that are parties to the Cartagena Agreement are the United States, Mexico, the United Kingdom, France, and the Netherlands. *See* TREATIES IN FORCE, *supra* note 123, at 380.

149. *See* GREENPEACE, TOXIC TRADE UPDATE NO. 6.2 21 (1993).

150. *See id.* at 22.

151. *Id.*

152. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 28 I.L.M. 657 [hereinafter Basel Convention].

153. *See* U.N. GAOR, 42nd Sess., Supp. No. 25, at 84, U.N. Doc. A/42/25 (1987).

154. *See Mutilateral Treaties Deposited Wtih the Secretary-General: Status as at 31 December 1994*, United Nations Publication, ST/LEG/SER.E/13, New York, 1995, at 937.

155. *See id.*

156. *See* GREENPEACE INT'L, *supra* note 1, at Attachment D, 1.

157. *See id.* at 1.

1. Key Provisions of the Original Convention

The Basel Convention repeatedly seeks to minimize hazardous waste generation and movement. The Preamble to the Basel Convention asks states to "take necessary measures to ensure that the management of hazardous wastes and other wastes including their transboundary movement and disposal is consistent with the protection of human health and the environment."[158] Portions of Article 4 further request parties to ensure that they reduce the generation and transboundary movement of hazardous wastes.[159]

Yet, the primary accomplishment of the original Basel Convention is the establishment of procedures for the international control of the transboundary movement of hazardous wastes.[160] This control of transboundary waste movements is directed through a procedure called "prior informed consent" (PIC).[161] The PIC procedure generally requires a waste exporting nation to provide sufficient information and receive written consent from both the importing state and any transit states before proceeding with a transboundary shipment in hazardous wastes.[162] The Basel Convention contains provisions which soften the PIC requirements, including provisions allowing importing nations to waive the PIC requirements[163] and allowing waste generators or exporters to use a general notification process for certain repeated or ongoing shipments.[164]

Under the Basel Convention, all parties must also require that waste exports be managed in an "environmentally sound manner."[165] If parties have "reason to believe" that the wastes in question will not be managed in an environmentally sound manner, the Basel Convention advises against the import or export of the wastes.[166] However, the Basel Convention establishes no guidelines regarding what should give a party reason to believe that wastes will not be managed in an environmentally sound manner. Moreover, the Basel Convention does not define what constitutes environmentally sound management. Leaving this decision to the

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158. Basel Convention *supra* note 154, Preamble at 657.

159. *See id.* art. 4(2)(a),(d), at 662.

160. *See* Donald, *supra* note 1, at 428.

161. *See* Basel Convention, *supra* note 152, art. 6, at 664. The PIC requirements have been called the "heart" of the Basel Convention. GREENPEACE INT'L, *supra* note 1, at Attachment D, 1.

162. *See* Basel Convention, *supra* note 152, arts. 6-7, at 664-66.

163. *See id.* art. 6(4), at 664-65.

164. *See id.* art. 6(6)-(8), at 665.

165. *Id.* art. 4(8), at 663.

166. *See id.* art. 4(2)(e),(g), at 662.

discretion of the individual parties has been called one of the major shortcomings of the Basel Convention.[167] Although Article 4(8) states that the parties should determine at their first meeting technical guidelines on the environmentally sound management of wastes, this meeting occurred in 1992 and failed to produce an explicit definition for environmentally sound management.[168]

Lastly, the Basel Convention allows parties to impose additional requirements that are consistent with the Basel Convention and international law,[169] and it recognizes every state's sovereign right to completely ban waste imports.[170] Any transboundary waste movements carried out by the parties that are not in accord with the Basel Convention's provisions are considered illegal.[171] The exporter must take back illegally exported wastes unless the exporter deems the return "impracticable."[172] Furthermore, each party is expected to promulgate national legislation to prevent and punish illegal waste traffic.[173] The remainder of the Basel Convention is largely precatory, imposing few strict requirements on the contracting parties.[174]

2. Decision to Ban Hazardous Waste Exports from OECD to Non-OECD States

Article 15(7) of the Basel Convention states that after its entry into force, the contracting parties would, if necessary, consider the adoption of a complete or partial ban on the transboundary movement of hazardous wastes.[175] One type of ban has dominated the agenda of the three meetings held by contracting parties since the Basel Convention went into force. This ban would prohibit all hazardous waste exports, including those destined for recycling or further use, from OECD to non-OECD states.[176]

The first conference of the parties to the Basel Convention approved Decision I/22, requesting that industrialized countries prohibit the export of wastes for final disposal to developing countries, and also requesting

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167. *See* Ovink, *supra* note 16, at 291-2.

168. *See id.* at 292.

169. *See* Basel Convention, *supra* note 152, art. 4(11), at 663.

170. *See id.* Preamble, at 657; art. 4(1)(a), at 661.

171. *See id.* art. 9(1), at 666.

172. *Id.* art. 9(2)(A), at 666-67.

173. *See id.* art. 9(5), at 667.

174. *See* Donald, *supra* note 1, at 428.

175. *See* Basel Convention, *supra* note 152, art. 15(7), at 671.

176. *See* Frances Williams, *Toxic Waste Exporters Face Ban*, FIN. TIMES (London), Sept. 25, 1995, at 2.

developing countries to prohibit such imports.[177] That decision delayed further discussion on a ban until the second conference of the parties. On March 25, 1994, the second conference of the parties adopted by consensus Decision II/12.[178] Under this decision, the contracting parties "recogniz[ed] that transboundary movements of hazardous wastes from OECD to non-OECD States have a high risk of not constituting an environmentally sound management of hazardous wastes as required by the Basel Convention;" and thus, decided:

> 1. . . . to prohibit immediately all transboundary movements of hazardous wastes which are destined for final disposal from OECD to non-OECD States; [and]
> 2. . . . to phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes which are destined for recycling or recovery operations from OECD to non-OECD States.[179]

In September 1995, the third conference of the parties agreed by consensus to amend the Basel Convention to include the Decision II/12 ban.[180]

These decisions came only after considerable debate, due to opposition registered by several countries. Contracting parties have challenged this ban and disagree over exactly what wastes it includes. This is significant because any amendment to the Basel Convention will not become binding international law until three-fourths of the contracting parties ratify it.[181]

a. States Arguing in Favor of and Against the Ban

In general, the main supporters of the Decision II/12 ban are non-OECD states, while the ban's opponents have been OECD members, including the United States, Canada, the United Kingdom, Germany, Japan, Australia, and New Zealand, have opposed the ban.[182]

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177. *See* UNEP/CHW.1/24, Annex II, at 37, *reprinted in* GREENPEACE INT'L, *The Case for Prohibiting Hazardous Waste Exports Including Recycling, from OECD to Non-OECD Countries*, 1994, Annex 1.

178. *See* GREENPEACE INT'L, IMPLEMENTING THE BASEL BAN: THE WAY FORWARD 3, app. I (1995).

179. *Id.* app. at 1. *See generally* Frances Williams, *Exports of Toxic Waste to be Banned*, FIN. TIMES (London), March 26, 1994, at 2.

180. *See* Williams, *supra* note 176, at 2.

181. *See id.*

182. *See* GREENPEACE INT'L, *supra* note 178, at 3; *see also* MARCELO FURTADO, GREENPEACE, BASEL BAN HERE TO STAY, INTERNATIONAL TOXICS INVESTIGATOR NO. 8.1, at 7 (1996).

Nevertheless, over a dozen OECD countries have stated that they support this ban,[183] and more recently, some non-OECD states, including Brazil, India, and South Korea, have objected to the ban.[184] States opposing Decision II/12 challenge the ban and they propose methods by which its scope may be limited.

b. The Debate on Recycling Wastes

The Preamble to the Basel Convention affirms "the need to continue the development and implementation of . . . recycling options . . . with a view to reducing to a minimum the generation of hazardous wastes and other wastes."[185] It is therefore interesting that the parties to the Basel Convention have chosen to include hazardous wastes destined for recycling or further use in their Decision II/12 ban. This may be due to a number of reasons.

Some states may believe that too many waste shipments purportedly destined for recycling are actually fraudulently labeled.[186] Because many recyclers make a majority of their profits by taking in wastes,[187] they often simply dump several of the shipments in the receiving country.[188] For example, in January 1986, 100,000 gallons of recklessly dumped heavy hydrocarbons, asbestos, and other hazardous materials were found in Tecate, Mexico.[189] An unlicensed Mexican recycling company received these toxic wastes from the United States.[190]

Also, states supporting a ban that includes recycling exports may believe that recycling hazardous wastes can present a problem as significant as the disposal of hazardous wastes, particularly for developing countries without the resources to recycle properly.[191] Recycling operations may expose workers and the surrounding environment to toxic emissions and discharges.[192] "In addition, residual hazardous wastes, often

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183. *See* GREENPEACE INT'L, *supra* note 178, app. at 3.

184. *See* FURTADO, *supra* note 182, at 7.

185. Basel Convention, *supra* note 152, Preamble, at 658.

186. *See* GREENPEACE INT'L, *supra* note 177, at 10.

187. *See* Puckett, *supra* note 4, at 101.

188. *See* GREENPEACE INT'L, *supra* note 177, at 10.

189. *See* CHRISTRUP, *supra* note 30, at 9.

190. *See id.* at 9. In this case, "three officials of U.S. Technology and Disposal Services pleaded guilty to felony charges of falsifying import and export documents." *Id.* The bilateral agreements between the three North American nations, discussed earlier, address this type of problem. *See infra* Part I.A.2.

191. *See* GREENPEACE, *supra* note 21, at 1.

192. *See* GREENPEACE INT'L, *supra* note 177, at 10.

even more concentrated toxic waste than the original hazardous waste, is then dumped in the receiving country."[193] The Thor Chemicals mercury waste recycling facility in South Africa provides a stark example of this problem.[194]

With the above concerns in mind, many states may support a ban on exports for recycling because as many as ninety percent of all waste trade proposals come under a proposal of recycling or further use.[195] It has been asserted that "virtually any waste transfer can be justified by some form of recycling pretext."[196] Thus, to ban only wastes destined for final disposal may not address enough of the current waste trade problem.

However, several states oppose a ban on the export of OECD wastes for recycling. These OECD and non-OECD states alike see waste recycling as financially attractive and environmentally sound.[197] They may assert that sham recycling schemes are not the norm and that "to include recyclable wastes in a ban is to threaten a multi-billion dollar industry that eliminates the need to dispose of millions of tons of hazardous wastes."[198]

Recycling may be an acceptable way for developing countries to earn substantial amounts of needed foreign exchange.[199] This income, in the form of payments and jobs, may help a non-OECD state become more developed. Also, "[f]unds from acceptance of hazardous waste could, if properly spent, vastly improve a poor nation's health, with the benefits far outweighing any increase in health risk from the waste."[200]

Furthermore, "from a global perspective, recycling is more desirable than disposal."[201] A ban that includes recyclable wastes will increase disposal needs, and as a U.S. State Department official explained, "it will

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193. *Id.* For examples of some potentially questionable recycling practices in Latin America, see GREENPEACE, *supra* note 4, at 9-14. *See also* JAN RISPENS, GREENPEACE, INDUSTRY'S MYTH OF CLEAN RECYCLING IN NON-OECD COUNTRIES: GERMAN COMPANY POLLUTES KAZAKHSTAN WITH METAL WASTES, WASTE TRADE CASE STUDIES (1995).

194. *See supra* INTRODUCTION.

195. *See* HELLER, *supra* note 47, at II-1; *see also* GREENPEACE INT'L, *supra* note 178, at 1.

196. JIM PUCKETT & HEATHER SPALDING, GREENPEACE INT'L, THE BASEL BAN—THE PRIDE OF THE BASEL CONVENTION 7 (1995).

197. *See* Ovink, *supra* note 17, at 294.

198. Donald, *supra* note 1, at 445. According to the U.S. Chamber of Commerce, "[a] ban on trade in Basel wastes for recycling between OECD and non-OECD countries would affect about $2.2 billion of U.S. trade in such commodities annually." U.S. CHAMBER OF COMMERCE, OPTIONS FOLLOWING THE DECISION OF THE BASEL CONVENTION TO BAN CERTAIN TRADE (May 18, 1994), *reprinted in* GREENPEACE INT'L, *supra* note 178, app. at 4, Leaked Document 5.

199. *See* Donald, *supra* note 1, at 445. The U.S. Chamber of Commerce asserts that waste trading is "a boon to the economies of developing countries," and it accuses opponents of this trade of trying to keep LDCs in poverty. *See* Zuckoff, *supra* note 27, at 2.

200. Jane Shaw, *Toxic Waste and AIDS Reporting*, WASH. TIMES, July 3, 1989, at E4.

201. *See* Donald, *supra* note 1, at 449.

work to increase the need among developing countries for extracting virgin materials, which is not in the overall global environmental interest."[202] A ban on OECD recyclable waste exports may negatively affect resource poor countries.[203] Some non-OECD states, such as South Korea, believe that banning exports for recycling could deprive developing countries of necessary materials.[204]

c. Waste Trading Between Non-OECD States

The Basel ban does not prohibit waste trading between OECD states most likely because they are assumed to have the resources and technology to handle hazardous waste in an environmentally sound manner. Nevertheless, objections have been raised concerning the scope of the ban, which "does not address trade among *non*-OECD countries, where, if anything, the potential for lack of [environmentally sound management] is the greatest."[205] Non-OECD states generate far less hazardous waste than OECD states. However, the transboundary movement and disposal of these wastes between states with little or no environmental regulation poses significant problems. As the U.S. State Department explained: "Under the ban the same substance could be exported from China to India, but not from Spain to India. This raises both environmental and trade concerns."[206] This problem may worsen as newly industrialized countries produce an increasing amount of hazardous waste.

d. Free Trade Issues Raised by the Ban

The Basel ban's restriction on waste trading is opposed both because it may inhibit the international development of environmentally sound recycling capabilities and because it would end the trade in wastes from OECD to non-OECD states that may be capable of environmentally sound

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202. U.S. STATE DEP'T, INTERNAL MEMORANDUM TO THE INTERAGENCY COMMITTEE ON OPTIONS FOR U.S. POSITION FOLLOWING BASEL SECOND CONFERENCE OF PARTIES 6 (June 1994), *reprinted in* GREENPEACE INT'L, *supra* note 178, app. at 4, Leaked Document 3.

203. *See* Allegra Helfenstein, *U.S. Controls on International Disposal of Hazardous Wastes*, 22 INT'L LAW. 775, 788 (1988).

204. *See* Williams, *supra* note 176, at 5.

205. U.S. STATE DEP'T, *supra* note 202, at 6 (emphasis added); *accord* U.S. STATE DEP'T, COMMUNIQUE SENT TO ALL EU COUNTRIES URGING NON-ACCEPTANCE OF DANISH PROPOSAL TO AMEND THE CONVENTION TO FORMALLY TRANSPOSE BAN DECISION (Mar. 8, 1995), *reprinted in* GREENPEACE INT'L, *supra* note 178, app. at 4, Leaked Document 1.

206. U.S. STATE DEP'T, *supra* note 205, at 1.

or even superior management.[207] The ban is also opposed because it is seen as a discriminatory, non-tariff trade barrier, which violates principles concerning the freedom of movement of goods.[208] This argument is based on the belief that waste is a good or commodity, and therefore should be subject to international regulations on free trade.[209]

"The Global Agreement on Tariffs and Trade (GATT) considers commercially disposed hazardous waste and its disposal a commodity. This means that the trade restrictions currently imposed by the Basel Convention could be brought before GATT and challenged."[210] Under a 1991 ruling, the GATT mandates that all its member states "'treat like goods in a like manner.'"[211] Also, GATT rules require all its member states, whether OECD or non-OECD states, to be treated equally in trade terms.[212] These rules present a significant challenge to the Basel decision to ban hazardous waste exports from OECD to non-OECD states. These are problems that could not only be raised under the GATT, but most likely under other free trade arrangements as well, such as the European Free Trade Association and the North American Free Trade Agreement.[213]

Environmentalists may assert that the ban decided upon by the Basel Convention's parties indicates that "hazardous waste is not a 'good' suitable for free trade."[214] Nevertheless, no free trade agreement currently allows the Basel Convention to determine what is or is not a good for the purposes of free trade.[215]

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207. *See id.*

208. *See* Puckett, *supra* note 4, at 102.

209. *See id.* at 102-03

210. *See* GREENPEACE, *supra* note 45, at 15.

211. *Id.*

212. *See id.* GATT Articles I and III generally set forth obligations of non-discriminatory treatment. General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. pt. 5, at A3, 55 U.N.T.S. 194 (*entered into force* Jan. 1, 1948), arts. I and III.

213. *See* Puckett, *supra* note 4, at 102-03.

214. GREENPEACE, *supra* note 45, at 2.

215. U.S. domestic law provides a noteworthy parallel here. Since Philiadelphia v. New Jersey, 437 U.S. 617, 628 (1976), the U.S. Supreme Court has consistently held that solid waste, including hazardous waste, is an "article of commerce," and, thus, states' ability to regulate such wastes is subject to dormant Commerce Clause restraints. It has accordingly been held that states cannot discriminate in their regulation of out-of-state wastes. *See id.; see also* C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383 (1994); Chemical Waste Management v. Hunt, 504 U.S. 334 (1992); Fort Gratiot Sanitary Landfill v. Michigan Dep't of Natural Resources, 504 U.S. 353 (1992).

e. Avoiding the Ban: Definitions of Hazardous Waste and Article 11 Agreements

In addition to the objections raised against the Basel ban decision, several states are suggesting methods by which the ban might be circumvented, even if it is included by amendment in the Basel Convention. These methods include defining hazardous waste in a manner that leaves current waste trading unaffected by a ban, and entering into bilateral agreements under Article 11 of the Basel Convention to avoid the ban.

Annex I of the Basel Convention lists categories of wastes to be controlled under the Basel Convention.[216] These wastes are considered hazardous wastes under the Basel Convention unless they do not possess any of the characteristics listed in Annex III.[217] These are some of the wastes that would fall under the ban on hazardous waste exports from OECD to non-OECD states. To avoid the ban's affects on certain waste trading, Annex I wastes may be directly or indirectly delisted.

The most notable example of this is the OECD "'red, amber, and green' listing system for wastes" destined for recycling facilities.[218] Under this three-tiered regulatory system, anything which appears on the "green" list may be exported within OECD states without any environmental controls whatsoever.[219] This is problematic because several of these "green" listed wastes also appear on Annex I of the Basel Convention and are likely to contain Annex III characteristics.[220] This system is therefore in conflict with the Basel Convention's definition and regulation of hazardous wastes.[221] Nevertheless, many OECD states, which are parties to the Basel Convention, have adopted this system.[222] Environmentalists believe the greater strategy of certain OECD states is to make this "red, amber and green" listing apply to non-OECD states. In this manner, exports of hazardous materials such as lead and cadmium can move to non-OECD states with no control whatsoever, in defiance of the ban and in defiance of the provisions of the Basel Convention.[223]

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216. *See* Basel Convention, *supra* note 152, Annex I, at 678.

217. *See id.* art. 1(a), at 659. These Annex III characteristics include "explosive," "flamable," "spontaneously combustible," "oxidizing," "poisonous," "infectious," "corrosive[]," "toxic, (delayed or chronic)," and "ecotoxic." *Id.* Annex III, at 679-80.

218. OECD Council Decision (C(92)39/Final).

219. *See* GREENPEACE, *supra* note 45, at 10.

220. *See* GREENPEACE INT'L, *supra* note 178, app. at 2.

221. *See id.* at 5.

222. *See* GREENPEACE, *supra* note 45, at 10.

223. *See id.*

The other method by which states have been seeking to avoid the Basel ban is through Article 11 of the Basel Convention itself. Under Article 11, parties are permitted to enter into bilateral, multilateral, and regional agreements on waste trading with other states as long as these agreements stipulate provisions that are at least as environmentally sound as those provided for in the Basel Convention, especially with respect to developing nations.[224] While environmentalists assert that using Article 11 to circumvent the ban is "legally ludicrous," industry organizations and states have indicated otherwise.[225] For example, the U.S. Chamber of Commerce has urged the U.S. government to quickly "begin negotiating bilateral agreements with Basel parties that are not members of the OECD from whom [U.S. companies] import or to whom [U.S. companies] export commodities that are arguably Basel wastes."[226] The U.S. Chamber of Commerce believes that these bilateral agreements would allow the United States to export recyclable wastes: to non-OECD states until the December 31, 1997 ban date; after that date if the ban is reversed or not ratified by enough parties; or after that date even if the Basel Convention is legally amended to include the ban, if these bilateral agreements are interpreted as superseding the ban decision.[227] Australia and Germany, both of which have bilateral waste trade agreements with non-OECD states, have asserted that these agreements will be acceptable even after the ban's commencement date.[228]

3. Basel's Enforcement and the Convention's Acceptance and Implementation in the Americas

The Basel Convention lacks effective provisions to enforce its principles and standards.[229] Each individual party is requested to introduce national legislation and "take appropriate legal, administrative and other measures to implement and enforce the provisions of this Basel Convention, including measures to prevent and punish conduct in contravention of the Basel Convention."[230] While Article 12 states that the parties will adopt a liability and compensation protocol under the Basel

224. *See* Basel Convention, *supra* note 152, art. 11, at 668.

225. *See* GREENPEACE, *supra* note 45, at 10.

226. *See* U.S. CHAMBER OF COMMERCE, *supra* note 198, at 2.

227. *See id.*

228. *See* GREENPEACE, *supra* note 45, at 10.

229. *See* Kitt, *supra* note 7, at 500.

230. Basel Convention, *supra* note 152, art. 4(4), at 662; *see also* art. 9(5), at 667.

Convention "as soon as practicable,"[231] this has yet to occur, despite UNEP's establishment of an ad hoc working group on this matter.[232] An international compensation fund has been proposed for emergency response measures, but this still remains simply a proposal.[233] Finally, the Basel Secretariat has no investigatory or enforcement powers, and is limited largely to administrative duties, some of which only come at the request of one of the parties.[234]

Even if the Basel Convention had more specific enforcement provisions, it is questionable whether the Basel Convention would be well implemented in the Americas. The Basel Convention is legally binding only on the states that have become parties to it. In the Americas, only sixteen states have become parties to the Basel Convention.[235] Five other states have signed the Basel Convention, but many have not even taken this step.[236]

The Decision II/12 ban may create additional difficulties in the acceptance and implementation of the Basel Convention in the Americas. While support for such a ban in the Latin American region can be found in the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), significant opposition to this ban comes from states that are members of the ECLAC as well.[237] Not only have Canada and Brazil registered their objections to the ban, but so has the region's largest waste generator and exporter, the United States.[238] In 1993, a U.S. EPA official stated: "The United States does not agree that hazardous waste

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231. *Id.* art. 12, at 668

232. *See* GREENPEACE INT'L, *supra* note 1, at 4.

233. *See* Kitt, *supra* note 7, at 500.

234. *See* Basel Convention, *supra* note 152, art. 16, at 671-73.

235. The American states that are parties to the Basel Convention are: Antigua & Barbuda, Argentina, Bahamas, Brazil, Canada, Chile, Cuba, Ecuador, El Salvador, Mexico, Panama, Peru, St. Kitts & Nevis, Saint Lucia, Trinidad & Tobago, and Uruguay. *See Mutilateral Treaties Deposited Wtih the Secretary-General*, *supra* note 154, at 937-38.

236. The five American states which have only signed the Basel Convention are: Columbia, Guatemala, Haiti, United States, and Venezuela. *See id.*

237. In a meeting in Santiago, Chile in November 1993, the members of the ECLAC agreed to start drafting a agreement banning the import of all hazardous waste into the region. *See* GREENPEACE, TOXIC TRADE UPDATE NO. 6.4 5 (1993). The member countries of the ECLAC are: Antigua & Barbuda, Argentina, Aruba (assoc. member), Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands (assoc. member), Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, France, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat (assoc. member), Netherlands, Netherlands Antilles (assoc. member), Nicaragua, Panama, Paraguay, Peru, Portugal, Puerto Rico, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Spain, Surinam, Trinidad & Tobago, United Kingdom, United States, Uruguay, Venezuela, and Virgin Islands (assoc. members). *See id.*

238. *See* GREENPEACE INT'L, *supra* note 178, at 3; *see also* FURTADO, *supra* note 182, at 7.

exports should be minimized under the Basel Convention. We should be allowed to export hazardous wastes to countries with lower standards, even when a practice has been banned in the U.S."[239] Since the ban decision, the United States has asserted that this "categorical ban" does not promote the environmental objective of the Basel Convention.[240] For this reason, the United States has indicated that it will not ratify the Basel Convention.[241]

Instead of implementing the current ban, the Clinton Administration proposes:

> banning exports of hazardous waste for both disposal and recycling outside North America, except under extremely limited environmentally sound circumstances . . . . While it is unlikely, at least in the short term, that a non-OECD country would meet the requirements of the exception, the [Administration's] principles deliberately do not preclude the export of wastes to a non-OECD country.[242]

Under the current Basel ban, waste trading in North America is unregulated, since Canada, the United States, and Mexico are all OECD states. With up to ninety-seven percent of U.S. waste exports staying in North America, only under limited circumstances may U.S. wastes leave the North American region. Therefore, the above proposal by the United States would basically maintain the status quo with respect to U.S. waste trading. Furthermore, while the current Basel ban does not address the significant waste trade in North America and any possible waste trade between Latin American nations, it leaves open the possibility of expanding waste trading in the Americas if more of the region's newly industrialized countries join the OECD.[243]

The importance of U.S. objections to the Basel ban is that it will be difficult to implement the provisions of the Basel Convention in the Americas as long as the United States remains a non-party to the Basel

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239. GREENPEACE, TOXIC TRADE UPDATE NO. 6.2, at 6 (1993) (quoting David Brussard of the U.S. Environmental Protection Agency).

240. U.S. STATE DEP'T, *supra* note 202, at 4.

241. *See* PUCKETT & SPALDING, *supra* note 196, at 3.

242. U.S. STATE DEP'T, *supra* note 202, at 2.

243. Then U.S. Secretary of State Warren Christopher called on the OECD to expand its membership into the Latin American region. *See* Wright, *supra* note 63 at D2. Argentina is an example of one of the region's states which has sought OECD membership more than once. *See Argentina Seeks Membership in Organization for Economic Cooperation and Development (OECD)*, CHRON. LATIN AM. ECON. AFF., Sept. 10, 1992; Daniel Victor Sosa, *Argentina—Economy: Argentina to Join OECD*, Inter Press Service, Jan. 11, 1996, *available in* LEXIS, Nexis Library, INPRES File.

Convention. After all, "[w]ithout the people and funds to implement a comprehensive hazardous waste control program, rules such as those in the [Basel] Convention attempting such control will be mere empty words."[244]

4. Regional Agreements Encouraged by the Convention

Like Article VIII of the London Convention, Article 11 of the Basel Convention allows parties to enter into bilateral, multilateral, and regional agreements.[245] Parties and non-parties may enter into agreements, but they must follow environmentally sound management practices concerning hazardous wastes.[246] Several of these agreements have been formed. The following are examples of such agreements that concern and involve states in the Americas.

E. The Central American Agreement

In December 1989, the presidents of Costa Rica, Honduras, El Salvador, Guatemala, and Nicaragua signed an agreement to establish the Central American Commission for the Environment and Development.[247] One of the purposes of this agreement was "[t]o determine the priority areas of action, including . . . the importation and management of toxic and hazardous materials."[248]

Three years later, these five nations and Panama signed the Agreement on Transboundary Movement of Hazardous Wastes in the Central American Region (Central American Agreement).[249] The Central American Agreement "bans importation, transport, ocean dumping, and ocean incineration of hazardous wastes in the Central American region," giving local authorities the power to prosecute offenders.[250] Yet, the Central American Agreement does allow the trading of certain wastes under particular circumstances, and some hazardous wastes, such as radioactive wastes, are not included in the agreement.[251] Also, although

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244. Donald, *supra* note 1, at 452-53.

245. *See* Basel Convention, *supra* note 152, art. 11, at 668.

246. *See id.*

247. Central American Agreement for the Protection of the Environment, *reprinted in* ENVIRONMENT AND DIPLOMACY IN THE AMERICAS 114 (Heraldo Muñoz ed., 1992).

248. *Id.* art. II, at 115.

249. *See* GREENPEACE, TOXIC TRADE UPDATE NO. 6.1, at 5 (1993).

250. *Id.*

251. *See id.*

envisioned as an agreement for the entire Central American region, Belize has never been a signatory or party to this agreement.

It is questionable how effective this ban agreement will be. In addition to the weaknesses in this agreement, many U.S. waste exporters continue to propose dumping wastes in Central America, as if no ban existed.[252] Also, possibly showing the inadequacy of the Central American ban, an El Salvadorian representative in support of a more global ban, like Decision II/12, said: "[W]e cannot allow this situation that requires us to be alert to continue."[253]

F. The Lome IV Convention

On December 15, 1989, the African, Caribbean, and Pacific States (ACP) and the European Economic Community (EEC) signed the Lome IV Convention.[254] The Lome IV Convention bans the export of all hazardous wastes from EEC states to ACP states, and prohibits ACP states from importing hazardous wastes from any country.[255] For purposes of this prohibition, "hazardous wastes" are those wastes listed in the Annexes of the Basel Convention.[256] The parties are to quickly adopt any national legislation needed to implement this ban and are to strictly monitor the implementation of this ban.[257]

The strength of this Convention is uncertain. Fourteen American nations that are ACP states signed this Convention.[258] While this is a significant number, it does not include all the nations of the Caribbean region. Moreover, a few years after Lome IV was signed, the EEC adopted the OECD "red, amber, green" system of hazardous waste export regulation.[259] This system basically deregulates several wastes identified as hazardous by Basel and Lome IV whenever recycling is involved.[260] Even though the "red, amber, green" system was originally only applicable within the OECD, the EEC extended this system of waste trade

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252. *See* GREENPEACE, *supra* note 149, at 6.

253. GREENPEACE, *supra* note 45, at 3.

254. Fourth African, Caribbean and Pacific States-European Economic Community Convention of Lome, Dec. 15, 1989, 29 I.L.M. 809.

255. *See id.* Title I, art. 39(1), at 819.

256. *Id.* art. 39(3), at 820.

257. *See id.* art. 39(1)-(2), at 819.

258. These states are: Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago. *See id.* at 809.

259. *See* GREENPEACE, supra note 249, at 10.

260. *See id.*

to the entire world, thereby seriously weakening the strength of Lome IV.[261]

G. Action Plan for the Environment in Latin America and the Caribbean

The Action Plan for the Environment in Latin America and the Caribbean (Action Plan) was formulated by the UNEP in response to a request made at the Sixth Ministerial Meeting on the Environment in Latin America and the Caribbean.[262] This Action Plan was approved in 1990 at the Seventh Ministerial Meeting on the Environment in Latin America and the Caribbean.[263] The Action Plan is an instrument designed to strengthen regional cooperation on environmental issues.[264]

One of the strategic principles of the Action Plan is "[t]o protect the region by prohibiting, under any circumstances, the entry of all types of hazardous, toxic, harmful and radioactive wastes; and to put into operation regional monitoring and control mechanisms for the safe transport, treatment and disposal of wastes produced within the region."[265] Nevertheless, the current waste trade situation in the Americas shows that this principle has yet to be implemented. This priority of the Action Plan may not have been implemented because of a lack of resources, to which many of the Action Plan's priorities were subject.[266]

H. Additional Declarations and Proposals: Amazon Declaration, Tlateloco Platform, Rio Declaration, and ECLAC Proposal

In addition to the above agreements that affect waste movements and disposal in the Americas, several declarations have been made which directly or indirectly address this issue. Among them are the Amazon Declaration,[267] the Tlateloco Platform,[268] and the Rio Declaration.[269]

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261. *See id.*

262. *See* Action Plan for the Environment in Latin America and the Caribbean [hereinafter Action Plan], *reprinted in* ENVIRONMENT AND DIPLOMACY IN THE AMERICAS 51 (Heraldo Muñoz ed., 1992); *see also* Declaration of Brasilia, Sixth Ministerial Meeting on the Environment in Latin America and the Caribbean, March 31, 1989, UN Doc. A/44/25 (1989), *reprinted in* UN GAOR, 44th Sess., Supp. No. 25 at 135-38.

263. *See* Action Plan, *supra* note 262, at 51.

264. *See id.*

265. *Id.* at 64.

266. *See id.* at 75.

267. The Amazon Declaration, May 6, 1989, *reprinted in* ENVIRONMENT AND DIPLOMACY IN THE AMERICAS 48 (Heraldo Muñoz ed., 1992).

Principle 14 of the Rio Declaration is typical of the advisory statements on waste trading made in these declarations.[270] That principle says: "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."[271] ECLAC has also proposed to draft an agreement that would ban hazardous waste imports into the Latin American and Caribbean region;[272] however, no such agreement yet has been adopted.

III. THE INSUFFICIENCY OF NATIONAL LEGISLATION AND BILATERAL AGREEMENTS

A. United States Law and Policy on Waste Disposal

1. The Resource Conservation and Recovery Act and Domestic Waste Treatment, Storage, and Disposal

The U.S. Congress' response to hazardous waste problems was the enactment of a "comprehensive, complex scheme of direct regulation" known as the Resource Conservation and Recovery Act (RCRA).[273] RCRA became law in October 1976 and was significantly amended in 1984 by the Hazardous and Solid Waste Amendments.[274] The regulations on domestic hazardous waste disposal are extensive, while the regulations on exporting hazardous waste are far simpler.

"Touted as a comprehensive, closed cradle to grave system, RCRA [, at the domestic level,] provides for the formal identification of wastes as hazardous, written manifests tracking all waste shipments, and certification, through a permit system, that performance standards for safe treatment, storage, and disposal are being met."[275] Regulators may only

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268. The Tlateloco Platform, March 1991, *reprinted in* ENVIRONMENT AND DIPLOMACY IN THE AMERICAS 118 (Heraldo Muñoz ed., 1992).

269. UNCED Rio Declaration on Environment and Development, June 13, 1992, 31 I.L.M. 876 (1992).

270. *See id.* Principle 14, at 878.

271. *Id.*

272. *See* GREENPEACE, *supra* note 237, at 5.

273. FREDERICK R. ANDERSON ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY 604 (2d ed. 1990).

274. *See id.* RCRA is codified at 42 U.S.C. §§ 6901-6991(I) (1994).

275. ANDERSON ET AL., *supra* note 273, at 604.

take action once a waste is formally designated as "hazardous."[276] Environmentalists assert that "the main problem with the law is that RCRA exempts many hazardous wastes from [its listing]," including incinerator ash, sewage sludge, used tires, plastic scrap, and lead batteries.[277] Despite this problem, the EPA has listed hundreds of specific hazardous substances in addition to a multitude of hazardous waste streams and generating processes for RCRA regulation.[278]

Waste transporting is addressed under section 3003, which places every hazardous waste shipment on a tracking system that requires the waste generator to select and specify its certified waste transporter and ultimate waste processor.[279] Rigorous requirements are also laid out for transporters.[280] Most significant are the provisions that establish the permit system for the treatment, storage, and disposal of hazardous wastes.[281] "To obtain a permit, a facility operator must comply with detailed regulations for incineration, landfills, chemical treatment, liquids restrictions, site location . . . , groundwater and leachate monitoring, fencing and warning signs, special employee training and emergency procedures, and final site closure."[282] The 1984 Amendments added substantial requirements to the already existing RCRA, such as efforts to reduce the generation and toxicity of wastes;[283] the prohibition of landfilling noncontainerized liquid hazardous waste;[284] the requirement, with possible modifications, that all new landfills have double liners;[285] and the regulation of underground storage tanks.[286]

RCRA also provides measures to enforce its provisions. The EPA can seek temporary or permanent injunctions, criminal penalties, and civil penalties.[287] The criminal penalties range from two to ten years in prison.[288] The criminal and civil fines range from flat fines of $250,000

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276. *See id.*

277. KOCKOTT, *supra* note 11, at 3; *see also* GREENPEACE, TOXIC TRADE UPDATE NO. 6.3, at 3 (1993).

278. *See* ANDERSON ET AL., *supra* note 273, at 605.

279. *See id.* at 605.

280. *See id.*

281. *See id.*

282. *See id.*

283. *See* 42 U.S.C. § 6922(b).

284. *See id.* § 6924(c).

285. *See id.* § 6924(o)(2).

286. *See id.* § 6991.

287. *See* ANDERSON ET. AL., *supra* note 273, at 609.

288. *See id.*

to $1 million, to per-day-of-violation fines of $25,000 to $100,000.[289] The EPA also imposes extensive insurance requirements under RCRA, with all figures beginning in the millions of dollars.[290]

2. Current and Proposed Laws on Waste Exports

The 1984 RCRA amendments added a provision regulating the export of hazardous wastes.[291] The provision "provides that no person may export hazardous wastes to another country unless the government of that country has agreed to accept them or the shipment complies with the terms of an agreement between the United States and that country regarding the export of hazardous waste."[292] The exporter must obtain a permit through this receiving country approval process, which is commonly known as "prior informed consent" (PIC), only if the waste is a RCRA designated hazardous waste.[293] If a waste is not listed as hazardous, it may be freely exported under U.S. law.[294] Also, once the government of the receiving country gives consent to the hazardous waste import, the EPA cannot stop this waste export even if it believes the waste will not be handled in an environmentally sound fashion.[295]

While several changes to this current state of the law have been proposed, they have either failed to receive ample support or they have been delayed. In early 1994, the Clinton Administration announced that it was considering a plan to ban the export of hazardous wastes from the United States.[296] This proposed ban, however, was laden with exceptions that only increased over time. Recyclable materials would be exempted for at least five years and the ban would not apply to exports destined for OECD states and Mexico.[297] In addition, the administration considered limiting the ban to wastes that could not be considered "commodity

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289. *See id.*

290. *See id.* at 610.

291. *See* 42 U.S.C. § 6938.

292. ANDERSON ET AL., *supra* note 273, at 605 (discussing 42 U.S.C. § 6938(a)).

293. *See* KOCKOTT, *supra* note 11, at 31.

294. *See* GREENPEACE, *supra* note 277, at 3.

295. *See EPA's Program on Hazardous Waste Exports Needs Improvements, Inspector General Says*, Int'l Env't. Rep. (BNA) 434 (Aug. 10, 1988).

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

297. *See id.*; *see also* KOCKOTT, *supra* note 11, at 32. Mexico had not yet joined the OECD. *See* GREENPEACE, *supra* note 45, at 2. With Canada and Mexico already receiving up to 97% of U.S. wastes, this ban might have applied to only three percent of U.S. waste exports, possibly "rendering the grandiose proclamation meaningless." *Id.* at 23.

like."[298] Another proposal would prohibit the export of hazardous wastes for disposal to all countries except Canada, and would allow wastes destined for recycling to be shipped only to OECD states and Mexico.[299] Finally, other alternatives have been introduced to Congress such as the Waste Export and Import Prohibition Act,[300] and its predecessor, the Waste Export and Import Control Act of 1994.[301] These measures, in general, sought to amend the Solid Waste Disposal Act to prohibit, in varying degrees, the international export and import of certain solid waste. Yet, none of these measures have received congressional approval.

3. The "Not In My Backyard" Movement and its Effects on U.S. Policy

As was stated earlier, increasing public awareness and resistance to hazardous waste disposal in several industrialized countries, including the United States, has forced the adoption of increasingly strict and expensive regulations for domestic waste disposal.[302] This public reaction is often characterized as the "Not In My Backyard" or "NIMBY" movement.[303] Many environmentalists disapprove of the term NIMBY, believing it to be a condescending way to refer to the grassroots efforts of local residents and concerned citizens who oppose the nearby siting of waste disposal facilities.[304] Nevertheless, as was shown above,[305] domestic pressures have been much more evident and successful in establishing strict regulations of waste disposal in the United States, but domestic pressures have been less successful in the regulation of wastes leaving the United States for someone else's "backyard."

NIMBY raises an interesting question and possible discrepancy in U.S. foreign policy. Throughout the Cold War, keeping Latin America and the Caribbean free of communism was a top priority of the U.S. government. This policy received much of its public support because the United States feared communism in its "backyard." Ironically, the effects

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298. KOCKOTT, *supra* note 11, at 32.

299. *See* GREENPEACE, *supra* note 277, at 3.

300. Waste Export and Import Prohibition Act, H.R. 3893, 104th Cong. (1996).

301. Waste Export and Import Control Act of 1994, H.R. 3965, 103d Cong. (1994).

302. *See* Puckett, *supra* note 4, at 94; *supra* notes 35-42, and accompanying text.

303. *See id.*

304. *See id.*; *see also* JUDY CHRISTRUP & ROBERT SCHAEFFER, GREENPEACE, NOT IN ANYONE'S BACKYARD (Jan.-Feb. 1990).

305. *See supra* notes 35-42, and accompanying text.

of communism spreading into what was considered to be the United States' backyard, for purposes of political ideology, might have been much less likely to spread to the United States than the effects of hazardous waste that was disposed in neighboring nations.

Proof that Latin America and the Caribbean are in the United States' backyard when it comes to hazardous waste disposal manifests itself in at least a couple of manners. First, if hazardous waste is not properly treated, used, or disposed in the importing nation, the waste could return to the exporting nation in something as commonplace as its food supply. For example, when a U.S. municipality ships its sewage sludge to Caribbean states for use as crop fertilizer, the waste often contains heavy metals and toxic pesticides that could enter plants' root systems.[306] The United States imports large quantities of food and agricultural products from the Caribbean, yet the Food and Drug Administration can only inspect small amounts of these imports.[307] Thus, contaminated food products could reach a significant number of U.S. consumers.[308] Scenarios like this have been described as a "circle of poison," because the dangerous effects of hazardous waste disposal come back to haunt the exporting nation.[309]

Second, LDCs often lack the resources and enforced legal obligations to handle hazardous wastes properly,[310] thus creating the possibility of an international environmental disaster.[311] For example, a large amount of U.S. hazardous waste is sent Mexico, where regulations are neither as strict nor as prescribed as they are in the United States. Furthermore, facilities operators in Mexico are likely less experienced in handling

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306. *See* Hugh J. Marbury, *Hazardous Waste Exportation: The Global Manifestation of Environmental Racism*, 28 VAND. J. TRANSNAT'L L. 251, 260 (1995). This example was presented by Wendy Greider, an official in the EPA's Office of International Activities. *See id.* at 260 n.58.

307. *See id.* at 260.

308. *See id.*

309. *International Export of U.S. Waste, 1988: Hearings Before the Subcomm. on Env't, Energy, and Natural Resources of the House Comm. on Gov't Operations*, 100th Cong. 374 (1988) (statement of Bonnie Ram).

310. This assertion could be made for LDC's ability to handle both recyclable *and new* toxic chemicals. New toxic chemicals are used as raw inputs in manufacturing processes in LDCs, with no broad international regulation. This may be because it would violate rights of sovereignty (and also be somewhat paternalistic) to prohibit struggling LDCs from using the same raw toxic inputs that developed nations use. Thus, it is at least arguable that recycled toxic inputs should not be distinguished from raw toxic inputs in international export and import regulations. In fact, recycled toxic inputs may, if anything, deserve the distinction of being environmentally and economically more desirable.

311. *See* Peter Abstler, *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); *see also* Helfenstein, *supra* note 203, at 788.

hazardous wastes. The toxic emissions and other effects of an accident, such as an explosion at a Mexican hazardous waste recycling or incinerating plant, could certainly affect the United States.

For these and other environmental and human health reasons, U.S. citizens and policy makers may wish to treat all of the Americas as their "backyard" for the purpose of hazardous waste disposal. This perception, however, may not be realized until the danger of something like the "circle of poison" or an international environmental disaster is experienced within the United States.

B. National Legislation in Other American Nations

Before analyzing national environmental law and policy in Latin America, one should understand of the situation in this region in the 1980s, which is now referred to as the "lost decade."[312] The severe debt crisis of that decade forced extensive economic and social sacrifices within most of these states. The need to focus on economic recovery and growth virtually eliminated any national environmental agencies and programs that previously existed in these states.[313] Until recently, one could accurately describe most Latin American countries as having "no legislation governing the production, handling, and disposal of toxic wastes."[314] However, at the Seventh Ministerial Meeting on the Environment in Latin America and the Caribbean, the participating governments set a national objective:

> The strengthening of environmental administrations in each of the countries of the region, the formulation of national environmental policies, the development of environmental legislation, the establishment of interinstitutional co-ordination mechanisms within the country, the promotion of environmental education and awareness campaigns, and other activities designed to safeguard the environment.[315]

Of interest here is whether any of the states in the Americas, besides the United States, ban or limit hazardous waste exports or imports through their own national laws. Currently, no state in the Americas appears to ban the export of hazardous wastes, with the exception of Canada, whose

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312. Biggs, *supra* note 84, at 340.

313. *See id.* at 341.

314. *Id.* (quoting WORLD RESOURCES INSTITUTE, WORLD RESOURCES 1987, 211 (1987)).

315. Action Plan, *supra* note 262, at 62.

export ban only applies to polychlorinated biphenyls (PCBs).[316] This is not surprising since Canada and the United States generate far more hazardous waste than the rest of the Americas.

The legislative situation is not the same for national import bans. Thirty-two Latin American and Caribbean states have some sort of prohibition on the import of hazardous waste into their territories.[317] Twelve of these states have bans by way of national legislation, constitution, or policy statements, while the remaining states' bans are derived from participation in international agreements.[318] The prohibition on hazardous waste imports in Argentina, Ecuador, Mexico, Peru, Uruguay, and Venezuela does not include hazardous wastes destined for recycling.[319] While this recycling exception leaves these countries open to most of the waste trade, such a policy may be justified. As discussed earlier, waste recycling is a growing global industry that provides cheaper inputs for domestic industries than raw inputs which may be equally if not more hazardous and which must be acquired with often scarce foreign exchange dollars.[320]

C. Bilateral Agreements Between Latin American States

In addition to the above referenced agreements on waste trading between the United States, Canada, and Mexico, [321] at least two bilateral agreements covering wastes exist between Latin American states. Argentina and Chile entered into an agreement in August 1991 aimed at coordinating their environmental protection efforts, including policies concerning hazardous wastes.[322] A year later, Brazil and Uruguay also entered into a bilateral agreement that addressed the treatment of wastes.[323]

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316. *See* GREENPEACE, *supra* note 277, at 2.

317. *See* GREENPEACE INT'L, *supra* note 178, app. at 3.

318. *See id.*; *see also* GREENPEACE, *supra* note 4, at 33. Argentina, Brazil, Chile, Columbia, Dominican Republic, Ecuador, Haiti, Mexico, Paraguay, Peru, Uruguay, and Venezuela have some type of national ban, while the states that derive their bans from international agreements include: Antigua & Barbuda, Bahamas, Barbados, Belize, Costa Rica, Dominica, El Salvador, Grenada, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Panama, St. Kitts & Nevis, St. Lucia, St. Vincent & Grenadines, Surinam, and Trinidad & Tobago. *See id.*; *see also* BEJARANO, *supra* note 32, Introduction. In addition to having a national ban, Haiti is also party to an international agreement containing a ban. *See* GREENPEACE INT'L, *supra* note 178, app. at 3.

319. *See* GREENPEACE, *supra* note 4, at 33.

320. *See* discussion *supra* Part III.D.2.b.

321. *See supra* Part II.

322. *See* Biggs, *supra* note 84, at 352.

323. *See id.* at 352-53.

Both of these agreements raise the possibility of establishing an administrative structure to execute the provisions of the agreements.[324]

D. The Failure of National Laws and Agreements in the Latin American and Caribbean Region

1. Empty Laws: Lack of Enforcement of Existing Environmental Regulations

Despite recent regulations to control hazardous waste movements and disposal in Latin America and the Caribbean, "a law is only as effective as its enforcement."[325] Often in Latin American and Caribbean countries, as in most LDCs, the administrative and political infrastructure needed to enforce environmental laws simply does not exist.[326] With forty-six percent of their population living below the poverty line in 1992, the Latin American and Caribbean states have not been able to allocate adequate resources to the development and enforcement of environmental regulations.[327]

There are ample demonstrations of the disparity between law and reality on hazardous waste trading. A recent Brazilian regulation issued by the National Commission for Environment purported to ban the import of wastes "of all sorts, all forms and for any purposes including recycling."[328] Yet, Brazil continues to import lead battery waste from the United Kingdom and the United States.[329] In the beginning of 1992, Guatemala supposedly made its existing waste import ban even more strict. Later that year, however, its own Mercantile Registry of the Ministry of Economics began to consider "yet another waste trade deal," in direct violation of regulations.[330] While Honduras and Nicaragua completely ban the import of hazardous wastes, including tire wastes, both countries have considered several proposals to import such wastes from the United States.[331]

The above examples are all government supported waste trade plans that fly in the face of national or international bans. There is also an

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324. *See id.*

325. CHRISTRUP, *supra* note 30, at 9.

326. *See* Kitt, *supra* note 7, at 488.

327. *See* Biggs, *supra* note 84, at 342.

328. GREENPEACE, *supra* note 45, at 20.

329. *See id.* at 36-37; *see also* GREENPEACE, *supra* note 49, at 4-5.

330. GREENPEACE, *supra* note 44, at 16.

331. *See* MURTAGH & GARZONA, *supra* note 74, at 4.

unascertained amount of illegally exported and imported waste in the Americas, carried by what are referred to as "midnight haulers."[332] This is a noted problem between the United States and Mexico,[333] but it may be, or it may become, just as prevalent among other states in the Americas, especially where a newly industrialized state borders a less developed country. Outside of North America, there is no country in the region with an established system, like PIC, to regulate wastes leaving its territory. Yet, until the enforcement of environmental laws becomes a priority in Latin American and Caribbean states,[334] comprehensive environmental regulations will remain empty rhetoric.

2. Exporting Industries and Their Wastes to LDCs

More lax environmental requirements for both production and waste disposal, and other financial benefits such as cheap labor and lower taxes, have drawn many production plants out of OECD states and into LDCs.[335] In a sense, this is an indirect form of waste trading. These operations left OECD states because their waste generating and disposal processes were too costly or simply prohibited in these developed states. While these plants bring jobs and capital to LDCs, in many cases, these exported industries and their wastes create an environmental and health disaster.[336]

. "Maquiladoras," the Spanish word for U.S. plants that have established themselves on the Mexican side of the border, are a vivid example of this problem. In the last twenty-five years, approximately 2000 maquiladoras have been set up.[337] These plants generate considerable amounts of toxic pollution and waste, most of which enter the air or the water unchecked. "Mexico does not have enough sites to properly treat

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332. Zuckoff, *supra* note 27, at 10. EPA estimates indicate that up to eight times as much hazarous waste may be exported from the United States than is actually reported. *See* Biggs, *supra* note 84, at 355.

333. *See* Zuckoff, supra note 27, at 10; *see also* CHRISTRUP, *supra* note 30, at 9.

334. *See* Kitt, *supra* note 7, at 489.

335. *See* EBAN S. GOODSTEIN, ECONOMICS AND THE ENVIRONMENT 118 (1995). While some manufacturing plants have closed in the United States primarily as a result of environmental regulations, this problem may be largely overstated. There are economists who assert that "there is little evidence to support claims of an economy-wide, jobs-environment trade-off." *Id.*; *accord* Calvin Sandborn Vansun, *Pollution Prevention Pays Off: Protecting the Environment Does Not Put Jobs at Risk*, VANCOUVER SUN, Editorial, Jan. 25, 1992, at B5; Alina Tugend, *Air Quality: Laws Drive Away Few Firms*, ORANGE COUNTY REG., Jan. 27, 1991, at B5. Nevertheless, even these economists note Mexican maquiladoras as an exception to their conclusion. *See* GOODSTEIN, *supra*, at 118.

336. *See* Diego Ribadeneira, *On Mexico's Border, "Prosperity" has an Ugly Side*, BOSTON GLOBE, July 12, 1994, at 10.

337. *See id.*

hazardous waste, and unlike the United States, does not place limits on the amount of toxins that can be dumped into sewers, nor does it require industries to disclose the kind and quantity of hazardous waste they are creating."[338] The wind and the water around these maquiladoras flow north. Thus, whatever pollution occurs on the Mexican side flows into the United States.[339] This is another example of the "circle of poison."

The maquiladoras situation also exemplifies the lack of environmental regulatory enforcement in much of Latin America. Although maquiladoras are in theory required to meet U.S. environmental standards, in practice the Mexican government does not have the resources to ensure that these laws are followed.[340] A 1992 report by the U.S. General Accounting Office (GAO), Congress' investigative arm, found that none of the maquiladoras surveyed in a random sample were in compliance with Mexican environmental laws.[341] About half of the maquiladoras produce hazardous waste, according to the Mexican government.[342] The GAO study found that only five percent of the maquiladoras returned hazardous waste to the United States for treatment as required by law.[343]

IV. A REGIONAL AGREEMENT ON WASTE DISPOSAL ENCOMPASSING NORTH, CENTRAL, AND SOUTH AMERICA, AND THE CARIBBEAN: THE MOST IMMEDIATE AND EFFECTIVE OPTION

A. The Need for a Regional Response to Waste Generation and Disposal

1. Summary of the Effectiveness of the Current State of Affairs

The transboundary movement and disposal of hazardous wastes is a genuine issue of concern throughout the Americas. Hazardous waste production is increasing throughout the region, which is only exacerbating old disposal problems. There is not only a great deal of hazardous waste trading between American nations, but there is also a significant amount of waste traffic in the Americas by non-American nations.

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338. *Id.*
339. *See id.*
340. *See* GOODSTEIN, *supra* note 335, at 121.
341. *See* Ribadeneira, *supra* note 336, at 10.
342. *See id.*
343. *See id.*

The response to this situation is hardly uniform. The region includes: three OECD member states,[344] at least two newly industrialized nations, a large number of LDCs, the world's largest waste generator,[345] the world's second greatest waste exporter,[346] and some of the world's most common destinations for hazardous wastes.[347] This variety of positions held by the Americas region states has produced an equally large variety of viewpoints, policies, and national and international legal measures dealing with the transboundary movement and disposal of hazardous waste in the Americas. There is little or no uniformity in the Americas regarding the national laws that deal with the transboundary movement and diposal of hazardous wastes.[348] Moreover, there is not one international arrangement to which all, or even close to all, the states in the Americas are parties. This creates the possibility of a semi-chaotic situation, in which almost any type of transboundary movement and disposal of hazardous waste remains possible in the Americas.

2. Why the Americas Should Not Rely Solely on Existing International Agreements and the Advantages of an Americas Agreement

The global community has definitely been active in trying to deal with issues surrounding hazardous waste trading and disposal.[349] The Americas' participation in these activities has been significant. Nevertheless, from the 1972 London Convention to the 1994 Basel Convention Decision II/12, it appears that "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."[350] It is astounding that despite all the treaties discussed in Part III, one could still assert that "[t]here is no international system to monitor toxic exports."[351] Thus, American nations will not solve their problems by relying on existing international and subregional agreements.

These international and regional agreements may show that global and subregional responses to this issue are inadequate for the American region. American nations may be best served by making an agreement with the

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344. *See supra* note 3, and accompanying text.
345. *See supra* note 27, and accompanying text.
346. *See supra* note 29, and accompanying text.
347. *See supra* notes 43-45, 94, and accompanying text.
348. *See supra* Part III.A-B.
349. *See supra* Part III.
350. Marbury, *supra* note 306, at 251.
351. Zuckoff, *supra* note 27, at 10.

nations of the Americas, and not making agreements with their immediate neighbors, the European Community, or the entire world. In general, global conventions on this issue seem to fall far short of global agreement and participation, rendering them somewhat ineffective. Meanwhile, the Latin American and Caribbean subregional agreements have implementation and enforcement problems.[352] These problems are usually the consequence of resource and funding scarcities, because, even collectively, LDCs may be too economically constrained to make a subregional agreement work. Without the resources and the funds to implement a comprehensive hazardous waste control program, any treaty establishing such a program will simply be empty words.[353]

An Americas agreement, on the other hand, could avoid many of these problems faced by currently existing agreements. A regional agreement that includes only the nations in the Americas could be more manageable than a global convention. It would not only be simpler to implement and enforce, but it would also be easier to quantify the results and successes of such an agreement. Most importantly, an Americas agreement would be cheaper and easier to fund than a global effort. Also, it may be easier to collect funds from all parties, including the ones most able to contribute, because the use of the funds will be more apparent. For example, it may be easier to justify and secure U.S. funding for an Americas agreement than it would be under the Basel Convention, where one might argue that a majority of U.S. contributions would be funding problems between Europe, Australia, Asia, and Africa.

3. Involving the United States in its Own "Backyard"

As the region's major producer and exporter of hazardous wastes, the United States may be reluctant to enter into any agreement constricting its waste trade. Nevertheless, considerable incentives may exist to bring the United States into an agreement that focuses on the Americas. These incentives go beyond any moral arguments that might be made regarding what U.S. policy on this issue should entail.[354]

First, Latin America and the Caribbean are in the United States' "backyard" for the purposes of environmental issues like hazardous waste management.[355] This is demonstrated by the "circle of poison" problem

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352. *See supra* Part III.D.1.

353. *See* Donald, *supra* note 1, at 452-53.

354. There are obvious moral arguments to be made against the United States using any of its American neighbors as a "backyard dumpsite." MURTAGH & GARZONA, *supra* note 74, at 7.

355. *See supra* Part III.A.3.

involving imported food products consumed in the United States or the possibility of an environmental disaster that occurs in Latin America or the Caribbean, but whose negative impacts are also felt in the United States.

Second, the United States may need to be more cooperative or compromising on the issue of hazardous waste trading and disposal with its American neighbors if it wants to receive their cooperation on other issues. For example, there are several important issues for the United States in which Latin American and Caribbean states may be reluctant to participate or assert responsibility. In the Tlateloco Platform, established by the ECLAC, Latin American and Caribbean states asserted their "limited responsibility in the generation of such environmental problems" including: harms to the atmosphere, climate change, and pollution of the oceans.[356] These issues, as well as other environmental concerns such as deforestation and protection of biodiversity, are U.S. concerns that may require more sacrifices on the part of Latin American and Caribbean countries than they initially might be willing to make. In short, to receive their cooperation on these matters,[357] the United States may need to be more cooperative in the Americas regarding hazardous waste trading and disposal.

Third, the United States may reach agreement with its less developed American neighbors, at least on the issue of importing recyclable U.S. wastes, by aiding the establishment of environmentally and occupationally safe recycling facilities in receiving states. This option could provide environmental and economic benefits for the entire region. The United States could thereby continue to export certain wastes, which in turn would be safely reused by countries who would otherwise have to use scarce resources to purchase or extract new inputs for themselves.

Lastly, if the United States is indifferent to issues involving hazardous waste trading and disposal, at least within the Americas, it may find itself having to live with or irresponsibly condone other nations' violation of international laws with which it disagrees. For example, if the Decision II/12 ban is amended into the Basel Convention or the ECLAC approves a total ban for hazardous waste imports in Latin America and the Caribbean, even though neither decision may be binding on the United States, the United States will have to respect such acts as international law for its regional neighbors. The United States would then have to hope that a receptive state in the region remains outside the legal scope of either of these decisions or it would have to find what would likely be more

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356. The Tlateloco Platform, *supra* note 268, at 121-24.

357. *See, e.g.*, Edward Parsons, *Protecting the Ozone Layer*, *in* INSTITUTIONS FOR THE EARTH: SOURCES OF EFFECTIVE INTERNATIONAL ENVIRONMENTAL PROTECTION 27 (Peter M. Haas et al. eds., 1995).

difficult alternatives to its current practices. Its only other alternative in such situations would be to entice the parties to these treaties to disregard their responsibilities and violate international law.

B. Lessons to be Learned from the Bamako Convention

Before the Basel Convention was signed, African nations expressed serious doubts about its effectiveness, based on the Basel Convention's limited ban on hazardous waste exports, the lack of a powerful Secretariat, and its ambiguous provisions on liability for damage caused by hazardous waste disposal.[358] The Organization of African Unity (OAU) rejected the Basel framework and asked its member states to agree on a "common African position for ameliorating the inadequacies contained in the draft [Basel] convention."[359] This common African position, entitled the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa (Bamako Convention) was adopted on January 29, 1991.[360] The key difference of the Bamako Convention, as opposed to the original Basel Convention, is that it prohibits "the import of all hazardous wastes, for any reason, into Africa from non-Contracting Parties."[361] Any violation of this strict import ban is "illegal and a criminal act" under the Convention.[362]

The Bamako Convention has been deemed "extremely effective in reducing the risk and incidence of hazardous waste dumping in Africa."[363] The evidence given for this effectiveness is the decrease in the number of hazardous waste trade proposals made to Africa after the Bamako Convention was adopted. From May 1988 until January 1991, sixteen waste trade proposals were made to OAU nations, but from the 1991 adoption of the Convention until October 1993, only four such proposals were made.[364]

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358. *See* Ovink *supra* note 17, at 285; *see also* Donald, *supra* note 1, at 430.

359. *Resolution on a Global Convention for the Control of Transboundary Movement of Hazardous Wastes*, OAU Resolution 1199, Feb. 25, 1989, *reprinted in* U.N. GAOR, 44th Sess. at 31-2, U.N. Doc. A/44/291 (1989).

360. Organization of African Unity: Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, done at Bamako, Mali, Jan. 29, 1991, 30 I.L.M. 773 (1991) [hereinafter Bamako Convention].

361. *Id.* art. 4(1), at 780.

362. *Id.*

363. GREENPEACE, *supra* note 4, at 15.

364. *See id.*

Nevertheless, it is not certain that this decline in waste trading to Africa can be entirely, or even primarily, attributed to the Bamako Convention's ban. The main exporters of wastes to Africa were the industrialized European countries located to the north of Africa.[365] As the Bamako Convention's ban was being drafted and adopted, the Iron Curtain was falling and Eastern Europe was opening up to industrialized Europe's waste. For example, waste export proposals to the Baltics and Eastern/Central Europe rose from 32 in 1989 to 113 in 1992, making that part of the world the number one choice for hazardous waste exporters.[366] Almost all of these export proposals came from Western European nations.[367] With Eastern Europe being closer to and easily reached by train from Western Europe, Africa may simply have fallen out of favor as a convenient destination for Western European waste exports.

Notwithstanding, the Bamako Convention remains the most comprehensive and widely applied regional agreement on the transboundary movement and disposal of hazardous wastes. As such, it can provide ideas and lessons from which the drafters of an agreement for the Americas can learn.

1. The Ban on Recyclable Wastes

Because it bans the import of all hazardous wastes *for any reason*, the Bamako Convention's prohibition includes all types of recycling and further use activities that come from waste imports. The issues discussed earlier, on the debate surrounding recycling and waste trade bans, are certainly applicable here.[368] The broad Bamako prohibition may be necessary to close a large loophole in waste trading that would be difficult for an underfunded convention and resource poor region to control. At the same time, however, this ban has been called "shortsighted," because it "limits the development of African industry to uses of traditional raw materials, and over-looks the importance that recycling and reclamation will play in the emerging world environmental order."[369]

An Americas agreement will have to give significant attention to waste recycling issues. It is unlikely that the United States, Canada, Mexico, and Brazil will accept a ban that includes all types of recycling and further use of wastes imports. Many countries in the Americas,

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365. *See* HELLER, *supra* note 47, at II-6.

366. *See id.* at II-4.

367. *See id.* at II-6.

368. *See supra* Part II.D.2.b.

369. Shearer, *supra* note 10, at 175.

however, may believe the recycling option leaves the door open for almost all types of waste imports and methods of handling wastes. Nevertheless, a comprehensive agreement that thoroughly addresses this issue, including measures to prohibit sham recycling and require environmentally sound recycling, could be acceptable to all states in the Americas. Clearly, it is important to explicitly define "environmentally sound management," in any Americas agreement.

2. Inter-African Waste Trading and the Environmentally Sound Management of Hazardous Wastes

Like the Basel Convention, the Bamako Convention fails to define the "environmentally sound management" of hazardous wastes.[370] However, because Bamako completely bans hazardous waste imports, issues surrounding the environmentally sound management of hazardous wastes only arise with regard to wastes generated and traded within Africa. Although the Convention lacks any clear definition of the environmentally sound management of hazardous wastes, it is quite thorough in its treatment of transboundary movements of hazardous wastes within Africa.

"Rules restricting types of notification, limiting ports of entry, and requiring consent from transit countries, make it more difficult to ship waste legally, but easier to monitor waste shipments" under the Bamako Convention compared to the Basel Convention.[371] Rules similar to these should be included in an Americas agreement to provide additional safeguards for waste movements within American states, the majority of which are LDCs. These rules should be acceptable to all parties, especially the United States, which has expressed concerns over the environmental dangers involved in waste movements between LDCs.[372] In addition to these rules, specific guidelines on the environmentally sound management of hazardous wastes should be included in an Americas agreement, thereby avoiding one of the main flaws in the Basel and Bamako Conventions.

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370. Ovink, *supra* note 17, at 291-92.

371. Donald, *supra* note 1, at 436.

372. *See* U.S. STATE DEP'T, *supra* note 202, at 6; *see also* U.S. STATE DEP'T, *supra* note 205, app. at 4.

3. Enforcement of the Bamako Convention

The primary criticism of the Bamako Convention is that it failed to effectively address two essential issues: enforcement and funding.[373] If a convention is not enforced, it serves few purposes other than to make a mockery of international law and the nations that instituted it. At the same time, the ability to enforce a convention's provisions is almost always dependent on the level of funding that convention enjoys. These two issues must be adequately addressed to make an Americas agreement viable.

The Bamako Convention requires its contracting parties to promulgate national laws that impose "sufficiently high" criminal penalties on anyone who planned, committed, or assisted in illegal traffic in hazardous wastes.[374] The Convention leaves open the formation of rules and procedures for liability and compensation from damages caused by the transboundary movement of hazardous wastes.[375] Thus, like the various waste conventions analyzed above, the Bamako Convention itself provides little guidance in the area of liability and penalties. There is no apparent reason why an agreement for the Americas should not address these issues immediately. Rules on liability, compensation for damages, and even criminal penalties could be set forth in this agreement. If parties to the agreement find these provisions too lenient, they could be given the right to institute harsher remedies. Nevertheless, a foundation should be laid within the original agreement on issues of liability, damages, and penalties.

The Bamako Convention directs its contracting parties to establish considerable bureaucracies to "facilitate the implementation" of the Convention.[376] Included here is the appointment in each member state of a national body to act as a "Dumpwatch."[377] Nevertheless, the role of the Dumpwatch is never clearly explained, and the Convention merely requires it to coordinate with concerned governmental and nongovernmental bodies.[378] Yet, the concept of a Dumpwatch in each American state may work well towards the implementation of an Americas agreement, which

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373. *See* Ovink, *supra* note 17, at 294.

374. Bamako Convention, *supra* note 360, art. 9(2), at 788. The Bamako Convention, however, "makes no provision for instances where fault for illegal traffic cannot be ascertained." Shearer, *supra* note 10, at 177.

375. *See* Bamako Convention, *supra* note 360, art. 12, at 790.

376. *Id.* art. 5, at 784.

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

378. *See id.*

should be much more explicit as to the function of each nation's Dumpwatch.

An aspect of the Bamako Convention that an Americas agreement should attempt to imitate is the role of the Secretariat. Unlike either the Basel Convention or other conventions examined above, the Bamako Convention has a relatively active Secretariat.[379] The Bamako Secretariat is expected to communicate with all contracting parties, their respective Dumpwatches, and intergovernmental and nongovernmental organizations.[380] It is also expected to produce an audit of hazardous waste generation in Africa,[381] and to provide the parties, without request, with reports on its activities and other relevant information.[382] Finally, the Secretariat must verify any alleged violation of the Convention and submit a report to all the Bamako parties on the matter.[383]

The enforceability of the provisions themselves may be more important than steps the Bamako Convention takes to enforce its provisions. It has been argued that "the Bamako Convention is so stringent that its ambitious provisions may threaten its enforceability."[384] This point could be very instructive in an Americas agreement. While a total ban on waste imports from outside of the Americas may be feasible, the application of a complete ban on waste imports from within the Americas may realistically be unenforceable. Industrialized nations within the Americas will likely not support such a ban, leaving the region's LDCs to implement and fund this strict agreement. As one must ask with respect to the Bamako Convention, "how are the parties to simultaneously reduce waste, introduce new technology, maintain a productive infrastructure, and provide an attractive business climate while the regulatory scheme becomes as complex and expensive as in developed nations? Furthermore, who is to provide the funding for all of this to take place?"[385]

4. Funding Problems and Possible Solutions for an Agreement in the Americas

An agreement with provisions as comprehensive and ambitious as the Bamako Convention's provisions raise immediate questions of funding.

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379. *See* Donald, *supra* note 1, at 440.

380. *See id.* at 440-41.

381. *See* Bamako Convention, *supra* note 360, art. 4(3)(a), at 781.

382. *See id.* art. 16, at 793.

383. *See id.* art. 19, at 797.

384. Shearer, *supra* note 10, at 174-75.

385. *Id.* at 177.

This is especially true where, as with the Bamako Convention, the contracting parties come from one of the poorest regions in the world. Unlike other conventions, which can receive funding from developed nations and international organizations such as the United Nations and the International Maritime Organization, the Bamako Convention has no developed nation even as a potential party. Further, the only organization to which it is officially affiliated is the OAU, which has the same limited funding sources as the Bamako Convention.[386] While the Convention lays out how its budget shall be prepared and from where contributions will come from,[387] there is little it can do to create the appropriate level of funding to meet its budget. This leaves questions as to whether the ambitious goals set by the Bamako Convention can truly be met.

This problem could be avoided in an agreement between all the nations in the Americas. Unlike the subregional Central American Agreement, which depends completely on funding from financially constrained LDCs, an agreement including all American nations would involve two of the world's wealthier nations, the United States and Canada, as well a few newly industrialized nations. Thus, in terms of funding, high standards may be achievable with an Americas agreement. However, this will likely mean some of the region's LDCs will have to compromise on the types of provisions in this agreement in order to give the region's developed countries the incentive to become parties to the agreement.

C. Issues Involved in a Regional Agreement on the Transboundary Movement, Treatment, and Disposal of Wastes in the Americas

In drafting an agreement for the Americas on the transboundary movement, treatment, and disposal of wastes in the Americas, the region will obviously have the successes and failures of several other agreements on which to build. As was noted above,[388] special attention must be paid to issues of recycling, environmentally sound management, enforcement, and funding. What will likely be the most difficult point of agreement will be the type and scope of waste trading ban included in this treaty.

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386. *See id.* at 177-78.

387. *See* Bamako Convention, *supra* note 360, art. 14, at 792.

388. *See supra* Part IV.B.

1. A Restrictive, but not Complete Ban on Waste Trading

While many American LDCs might desire a complete ban on waste trading in the Americas, this is not likely to receive the support of some of the region's most powerful nations. It will be important to include these nations in an Americas agreement if it is to be successfully implemented and enforced. Otherwise, any complete ban adopted in the Americas will likely be subject to illegal trading not only from American nations, but also from non-American states.

One type of complete ban that this agreement may include is a prohibition on the import of any wastes generated outside of the Americas. Such a ban may require compromising with nations in the region, like Brazil, that wish to develop recycling industries that stand to benefit from non-American, recyclable waste imports. Nevertheless, this type of ban will substantially decrease the potential amount of waste trading that could occur in the Americas. In addition, it will make the Americas agreement easier to implement, as the only type of waste trading to be regulated will be wastes from within the region. This will also make enforcement more manageable, because the number of participants and potentially liable parties will be significantly reduced.

A ban on the trade of all wastes for final disposal in American non-OECD states should be acceptable to all states, but such a ban on recyclable wastes will not receive the same support. The region's OECD states will likely disagree with such a ban, as might a few of the region's non-OECD states. While almost all of the region's non-OECD states would support such a ban, it is not clear that it would serve their best interests. An agreement that permits only the well-defined, environmentally sound management of recyclable wastes could continue to provide American non-OECD states with the benefits of recycling processes, without many of the harms that they currently fear. In accepting such provisions on recyclable waste trading, these non-OECD states will be in a far better position to demand technology transfers, resources, and funding for recycling and other environmental processes. Indeed, the satisfaction of these demands, which have been made repeatedly by American non-OECD states,[389] can be assured by including provisions for such in the Americas agreement.

389. *See, e.g.*, The Tlateloco Platform, *supra* note 268; *see also* The Amazon Declaration, *supra* note 267.

2. Involving Existing International Organizations in the Implementation of this Proposed Americas Agreement

While an essential ingredient to the success of an Americas agreement will be securing adequate funding, this does not mean that an entirely new bureaucracy needs to be established to implement this agreement. The administration of this agreement could reasonably fit into an existing inter-American bureaucracy such as the Organization of American States (OAS). With roots dating back to 1890, the OAS was founded to foster cooperation among the nations of the Americas.[390] The OAS Charter allows for specialized conferences to develop inter-American cooperation on specific matters and specialized intergovernmental organizations to accomplish the objectives of multilateral agreements.[391] Thus, the formation and administration of an inter-American agreement on the transboundary movement, treatment, and disposal of hazardous wastes, would fit within the OAS' purpose and functions.

3. Securing Full Participation Amongst American Nations

Critical to the success of this Americas agreement will be the full participation of all the nations in the region. The failure to include even one state could be detrimental to the implementation of a comprehensive regulatory system in the region. The need for participation applies to an OECD state like the United States, who produces and exports substantial amounts of waste and whose financial and political influence will be necessary to implement this agreement, and non-OECD states whose non-participation could be just as detrimental. For example, if a non-OECD state chose not to participate in an Americas agreement, that state could easily become the destination for all the waste in the world that wanted a dumping ground in the Americas. This includes both legal and illegal waste shipments, since that nation would not have the enforcement mechanisms of the Americas agreement to ward off such trade.

Thus, the participation of every American state must be encouraged and achieved. This might be accomplished not only through the meetings and negotiations between the states, but also through the provisions of the agreement itself. The agreement could, for example, prohibit its parties from importing or exporting any types of wastes to or from non-parties within the region and from providing assistance on any such related matter.

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390. *See* THE STATESMAN'S YEAR-BOOK, *supra* note 3, at 54.

391. *See id.* at 54-55.

CONCLUSION

The problems emanating from the transboundary movement, treatment, and disposal of hazardous wastes present difficult challenges for the entire world. The Americas are no exception. However, the possibility for a quick and effective answer to many of these problems in the Americas may lie in a comprehensive regional agreement. Like all international agreements, this one will only be reached through compromise, and may have unfavorable elements for all the parties. Yet, as long as hazardous wastes continue to be generated, and domestic disposal methods prove inadequate, a consensus on exactly how to deal with these wastes is unlikely. Nevertheless, an Americas agreement will be a new and potentially successful way of confronting this international problem. This proposal's success will require "an unprecedented level of cooperation among countries" and "[a] commitment to hemispheric solidarity."[392]

392. Action Plan, *supra* note 262, at 78-79.