The Basel Convention: Controlling the Movement of Hazardous Wastes to Developing Countries

Valentina O. Okaru*
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THE BASEL CONVENTION: CONTROLLING THE MOVEMENT OF HAZARDOUS WASTES TO DEVELOPING COUNTRIES

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INTRODUCTION

SINCE the mid-1980's there has been an upsurge in the shipment of hazardous wastes from industrialized countries to developing countries. The monitoring effort, organized by non-governmental organizations (NGOs), and particularly Greenpeace, identified more than 3.6 million tons of waste shipments from industrialized countries to developing countries between 1986 and 1988.¹ West African countries imported as much as twenty-four million tons of hazardous waste from industrialized countries in 1988 alone.² The United States produces more than 250 million tons of hazardous wastes each year;³ of that, 160,000 tons are exported and the amount is increasing.⁴ The number of United States companies that sought approval from the Environmental Protection Agency (EPA), to export toxic wastes to developing countries increased from twelve in 1980, to 638 in 1988.⁵

* The author is a J.S.D. candidate at the Stanford Law School. M.A. 1990, Tufts University, Fletcher School; L.L.M. 1987, University of London, L.S.E. The author wishes to thank Professor Dinah Shelton and Professor John Barton, Stanford Law School, for their invaluable direction. The author appreciates the emotional support of Mr. and Mrs. Paul Newton Okaru.


4. Id. There is no accurate data on the quantity and quality of wastes that are actually exported to African nations. Additionally, surveys have confirmed that wastes are not only exported to developing countries but also to developed countries. In 1989, 28,000 tons of waste were exported to Mexico from the United States, while 105,000 tons of waste were shipped to Canada from the United States during the same period. Interview with Jim Vincent, Coordinator for Waste Export Enforcement, EPA, in Washington, D.C. (Dec. 12, 1990). Unlike other countries where wastes are exported, Canada and Mexico have entered into bilateral agreements concerning the transboundary movement of hazardous wastes. Agreement Between the Government of the United States and the Government of Canada Concerning the Transboundary Movement of Hazardous Wastes, Oct. 28, 1986, 26 I.L.M. 593 (1987); Agreement of Cooperation between the United States and the United Mexican States regarding the Transboundary Shipments of Hazardous Wastes and Hazardous Substances, Nov. 12, 1986, 26 I.L.M. 25 (1987).

But some officials of the EPA admit that many wastes exported to developing countries are unaccounted for. \(^6\) Some exporters do not seek approval from the agency; in turn, the EPA does not possess a very effective means of monitoring such shipments or ensuring that waste dealers comply with the notification requirements. \(^7\)

In addition, the statistics on waste exports from the United States do not reflect the wastes that have yet to be formally categorized as "hazardous" chemicals subject to regulation. \(^8\) Most developing countries still import banned, cancelled and unregistered chemicals including insecticides at lower costs and in larger quantities from industrialized countries. As a result, there is inaccurate data on the quantity and quality of all the toxic substances exported.

Furthermore, there have been some reported incidents of the exportation of wastes without the formal consent of the importing government to African countries, particularly to Zimbabwe, Nigeria, Guinea, Sierra Leone, Congo, Liberia and Gabon. In 1986, two Americans, Jack and Charles Colbert, were tried and sentenced to thirteen years imprisonment in the United States for fraudulently selling 228 fifty-five gallon drums of toxic chemicals, containing a mixture of recycled chlorine and solvents, at $2.6 dollars per gallon to Chemplex Marketing, a Zimbabwean company, under the guise of dry-cleaning liquid. \(^9\)

In an attempt to escape stringent legal means of protecting the environment in the European Economic Community, on September 24, 1987, an Italian businessman acting on behalf of Messers S.I. Ecomar, an Italian waste disposal company residing in Nigeria, was alleged to have illegally exported 4,000 tons of toxic waste consisting of 150 tons of polychlorinated biphenyls (PCBs) from Italy to Nigeria over an eighteen month period. \(^10\) Thereupon, he made a profit of 4.3 million dollars. \(^11\)

The wastes were brought into the country as industrial chemicals for a

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\(^6\) Congress intended the EPA to work closely with the United States Customs Service, with the belief that a structured waste export monitoring system would be developed. See Robert M. Rosenthal, Comment, Ratification of the Basel Convention: Why the United States Should Adopt the No Less Environmentally Sound Standard, 11 TEMP. ENVTL. L. & TECH. J. 61, 70-71 (1992). However, monitoring procedures have been ineffective as a result of a lack of resources and failure to have a comprehensive training program in place. \(^7\) Id. at 71.

\(^7\) Andrew Portfield & David Weir, The Export of U.S.-Toxic Wastes, THE NATION, Oct. 3, 1987, at 341. The United States Accounting Office concluded that the "EPA does not know whether it is controlling 90% of the existing waste or 10% it does not know if it is controlling wastes that are hazardous." From February to December 1987, the EPA received 274 notifications of toxic waste exports, 143 of which did not show a port of exit. Hearings Before the Subcomm. on Environment, Energy and Natural Resources, 100th Cong., 1st Sess. 22 (1988).

\(^8\) \(\text{id.}\) These wastes include incinerator ash, banned and unregistered pesticides, used batteries and scrap metals exported for recycling and containing hazardous wastes.

\(^9\) MOYERS, supra note 1, at 42.

\(^10\) \(\text{id.}\) at 1.

Nigerian building construction company, Iruekpen. Mislabelling the garbage as fertilizers, the Italian company deceived a retired/illiterate timber worker into agreeing to store the poison in his backyard at the Nigerian river port of Koko for as little as 100 dollars a month. These toxic chemicals were exposed to the hot sun and to children playing nearby. They leaked into the Koko water system resulting in the death of nineteen villagers who ate contaminated rice from a nearby farm. In reacting to the toxic waste export, the Nigerian government severed diplomatic relations with Italy and ordered the seizure of the Danish ship, Danix, which transported the poisonous chemicals into the country. Moreover, the Italian merchant ship, M.V. Piave, was detained though it was not involved in the alleged illegal shipment. Subsequently, diplomatic relations were renewed when the Italian government agreed to reimport the wastes in return for the release of the Piave.

Describing incinerator ash as building materials, in 1988, Gumomar, a company jointly owned by Guinean and Norwegian governments, exported 15,000 tons of the toxic waste from Norway into the island of Kassa in Guinea with the approval of the Guinean government. It was not until trees started dying in the waste-affected areas that government authorities discovered that the materials were actually toxic and immediately requested that the wastes be sent back to Norway. In 1988, 625 bags of falsely labelled toxic substances were dumped near Freetown, the capital of Sierra Leone.

In desperation, some companies have gone to the extent of attempting to lure some African governments to accept toxic wastes by promising some kind of economic reward. For example, an unnamed company had unsuccessfully attempted to export toxic wastes to Liberia by promising to build a hospital and supply drugs worth one million dollars in Liberia if the latter accepted to import such wastes.

In addition to importing hazardous wastes, African countries, particularly Ghana and Nigeria, have unknowingly imported toxic products, including beef contaminated by the Chernobyl nuclear accident in the Soviet Union in 1986.

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15. Id.
The increase in legal and illegal traffic of wastes to African countries is due to a number of reasons including:

- lack of available sites for the installation of toxic waste facilities in industrialized countries;
- increased environmental awareness in industrialized countries resulting primarily in local opposition to toxic waste dump sites in their neighborhoods;
- introduction of stringent government and legal regulations for the disposal and management of toxic wastes in industrialized countries, which measures are lacking in African countries;
- lack of effective means in industrialized countries of monitoring and restricting toxic waste exports, particularly to African countries, and simultaneously a lack of and/or shortage of required technical expertise and infrastructure to inspect and to monitor the toxicity of the wastes imported into Africa;
- economic incentives for foreign companies who are faced with costly means of disposal in industrialized countries as opposed to cheap disposal costs in African countries;
- financial inducement, particularly for those African nations that are faced with heavy debts and are in dire need of foreign exchange;
- geological and demographic factors;
- lack of technical and regulatory means of reducing and preventing the production of toxic waste.

With increased global industrialization, wastes are piling up faster than there are places of disposal, particularly in industrialized countries. The number of available disposal sites decreased from 1,500 in 1984 to 325 in 1988 in the United States, where as much as 500 million tons of wastes are generated each year. The difficulty in finding disposal sites is aggravated by strong public resistance to the dumping of wastes in their backyard or in any backyard. Placement of wastes has become very controversial even in low-income neighborhoods with low property values, where companies believed that it was more economical to dispose of toxic wastes and that residents of such areas were least likely to offer any political resistance.

Similar factors of economics and lack of resistance have influenced the decision of companies to increase their exports to developing countries, particularly to African countries where there is little effective environmental regulation, economic instability, a high demand for foreign ex-

18. MOYERS, supra note 1, at 104.
19. Most residents have prevented the construction of new facilities in their neighborhoods, particularly in the United States. Gregg Easterbrook, Cleaning Up, NEWSWEEK, July 24, 1989, at 27.
change and little or no public awareness of environmental hazards. In addition, the intensified efforts to clean up old dumping sites represent an additional build-up of hazardous wastes to be managed and disposed.

The enactment of U.S. environmental statutes like the Resource Conservation and Recovery Act (RCRA) resulted in a large upsurge in the price to bury and burn waste. Prior to the passage of RCRA, it cost as little as $2.50 to bury a ton of waste and $50 to burn such wastes; subsequently, it increased to $200 to bury and over $2000 to burn.

In African countries however, waste disposal costs for land filling are as little as $2.50 per ton of hazardous waste. Additionally, the costs of administration, packaging, labelling, transportation and insurance are estimated at $100 per ton of waste exported to Africa from industrialized countries, thus creating the economic incentive for companies to export. With little or no effective regulations for management and disposal of wastes, African countries lack the technical expertise to monitor and control the wastes imported into their countries and to determine the toxicity of such wastes. In addition, they lack the infrastructure and technology needed to cope with the treatment and disposal of wastes and have too many of their own hazardous waste problems to be able to cope with importing wastes from other countries.

But with the poor state of economy in African countries, some have admitted that they are sometimes financially induced to accept the shipment of toxic wastes into their territories from the industrialized world. In 1988, European and American waste brokers offered Guinea-Bissau $600 million to import fifteen million tons of industrial waste over a five

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25. The Philadelphia Deputy Commissioner, Bruce Gledhill, expressed the view that there was nothing wrong with the shipment of incinerator ash to Guinea, Africa because it was the best and least costly means of disposal. Kristin Helmore, _Dumping on Africa, West Exports Its Industrial Wastes_, CHRISTIAN SCI. MONITOR, July 1, 1988, at 1.
27. A top government official in Guinea-Bissau justified his country's acceptance to import toxic wastes by stating, "we need the money." Harry Anderson, _The Global Poison Trade_, NEWSWEEK, Nov. 7, 1988, at 66.
year period. The total payment would have represented more than thirty-five times the country's annual export earnings.\(^{28}\) But as a result of pressure from other members of the Organization of African Unity (OAU), Guinea-Bissau, in June 1989, announced its intent to withdraw from all the toxic waste agreements.\(^{29}\)

Similarly, officials in Benin had signed a contract on January 12, 1988, with SESCO, a British company based in Gibraltar to import between one and five million tons of toxic waste at the price of $2.50 a ton.\(^{30}\) In addition, SESCO promised to install a waste treatment plant free of charge in Benin.\(^{31}\) Benin government officials entered into another contract with a French company to dispose of nuclear waste from France. However, during the OAU summit in May 1988, after enormous opposition and strong pressure from African countries, Benin officials canceled their toxic waste contract with both the British and French companies.

Demographic and geological factors have prevented some industrialized countries from building adequate disposal facilities and, as a result, their desire to export to developing countries has increased. For example, Denmark, Greece and Luxembourg cannot afford to build complex waste disposal sites due to their small size. The volume of hazardous wastes are so considerable that such complex facilities are economically inefficient.\(^{32}\) Moreover, the Netherlands bans landfills because of its geological and hydrological conditions, including the high water table.\(^{33}\)

In March 1988, in response to the international outcry concerning the upsurge in hazardous waste movement into developing countries, the United Nations Environmental Programme (UNEP) sponsored the establishment of the Basel conference, consisting of 116 nations, to engage in negotiations on the control of transfrontier movement of such wastes.\(^{34}\) The conference was concluded in Basel, Switzerland in March of 1989 with the adoption of the Basel Convention on the Control of the Transboundary Movement of Hazardous Waste.\(^{35}\) The Convention was the first attempt on a global scale to reach such an agreement. It consists

\(^{28}\) Id.

\(^{29}\) Id.

\(^{30}\) Id.

\(^{31}\) Id.

\(^{32}\) Id.

\(^{33}\) Id.

\(^{34}\) Id.

\(^{35}\) Id.
THE BASEL CONVENTION

of the Final Act, resolutions, several declarations, the preamble and twenty-nine Articles with six Annexes. The Basel Convention entered into force on May 5, 1992.36 Presently, thirty-three countries have ratified and are parties to the agreement.37

UNEP's goals in establishing the Basel Convention were to encourage countries to introduce measures that would lead to major reductions in the generation of wastes and ultimately, to eliminate their movement; to make it difficult to get approval for the movement of hazardous wastes with a view to reducing their transboundary movement; to only permit its movement when it is environmentally sound to dispose of it afar rather than close to where it was generated; and to clarify and enforce measures to control the international trade in wastes.38

The aim of this Article is to discuss how effective the Basel Convention will be in controlling the traffic of toxic wastes to African countries, particularly from the United States. Part I of the Article will examine the content of some of the key provisions of the Basel Convention which may hinder its ability to restrict and to monitor the export of toxic wastes to developing countries, particularly African nations. In determining the impediments to rigorous enforcement and implementation of the Convention, Part II of the Article will analyze the relevant provisions, particularly those dealing with monitoring of the international waste trade, enforcement and implementation. Finally, the Article offers conclusions and recommendations which may further assist in the interpretation of the Basel Convention and the problems associated with waste export.

I. ANALYSIS OF THE SCOPE, DEFINITION AND CONTENT OF THE BASEL CONVENTION

A. Hazardous Wastes

Radioactive wastes39 and garbage which derive from the normal operations of a ship40 are excluded from the scope of the Basel Convention. The Convention defines “hazardous wastes” as all wastes stipulated in


36. The Basel Convention provides that it shall enter into force on the nineteenth day after the date of deposit of the twentieth instrument of ratification, acceptance, approval, formal confirmation or accession. Id. art. 25.

37. The countries include Argentina, Australia, Bahamas, Bahrain, Brazil, Canada, Chile, China, Cyprus, Czechoslovakia, El Salvador, Estonia, Finland, France, Hungary, India, Jordan, Latvia, Liechtenstein, Maldives, Mexico, Monaco, Nigeria, Norway, Panama, Poland, Romania, Saudi Arabia, Sri Lanka, Sweden, Switzerland, Syria, and Uruguay. To enter into force, the Basel Convention requires only 20 countries to ratify the treaty.


39. Basel Convention, supra note 35, art. 1, para. 3.

40. Id. art. 1, para. 4.
Annex 1 and as any other wastes that are considered hazardous by the domestic legislation of the party of export, of import, or of transit. The wide definition was to prevent misunderstandings and contribute to a better control and monitoring system. The Basel Convention was intended to have flexibility to encourage political and scientific evolution of the definition of hazardous waste.

Radioactive wastes were excluded from the scope of the agreement primarily because these wastes are subject to other control systems and international agreements. Furthermore, unregistered, banned and canceled chemicals including DDT (which are still heavily imported into developing countries) do not belong to the category of hazardous wastes that are specified in Annex 1 as “hazardous wastes” for the purposes of the Convention. However, such chemicals could be brought within the scope of the Convention and could be considered “hazardous wastes” for the purposes of the Convention if, in exercising the discretion accorded to them, States enacted and implemented legislation to that effect. However, given the financial incentive to import such poisonous pesticides into Africa, the useful agricultural purposes served by the chemicals and the lack of both knowledge of the toxicity of the pesticides imported and access to alternative environmentally safe pesticides, African countries would not effectively ban or control the importation of such pesticides into their countries.

Moreover, in industrialized countries, particularly the United States, the environmental statutes do not prohibit the exportation of pesticides

41. Wastes enumerated in this annex include pharmaceutical products, biocides, organic solvents, cyanide, polychlorinated biphenyls (PCBs), photographic chemicals and chemical substances arising from research and development activities whose impact on the environment and on the society are unknown.

42. Basel Convention, supra note 35, art. 1, para. 1(b).

43. Id. art. 1, para. 3.

44. Chemicals such as DDT have been banned in most industrialized countries because they are considered poisonous to humans, animals and the environment. Countries that have banned these toxic chemicals include Canada, Japan, Sweden, the United Kingdom and the United States. NIGERIAN ENVIRONMENTAL STUDY/ACTION TEAM (NEST), NIGERIA’S THREATENED ENVIRONMENT, A NATIONAL PROFILE 20 (1991).

45. Basel Convention, supra note 35, art. 1, para. 1(b).

46. In 1984, UNEP’s governing council adopted two principles providing for information exchange between exporting and importing countries of banned and restricted chemicals. Provisional Plan for Information Exchange on Chemicals Recommended by UNEP Council, Int’l Envtl. Rep. (BNA) No. 7, at 180 (June 13, 1984). The first principle required exporting countries to provide notification to importers when significant regulatory action was taken on a chemical, and the second suggested that exporting nations should provide notification on exports following the control action when new information was developed. Similarly, in the United States CERCLA establishes a mechanism to monitor health impacts of hazardous wastes disposal and introduces a citizens “right to know” provision requiring parties manufacturing or using hazardous materials to release publicly any information about risks associated with a particular substance. 42 U.S.C. §§ 9607, 9611, 11001-11050 (1988). Some African countries are partly to blame for importing such chemicals, particularly those who are aware that the chemicals have been banned in industrialized countries.

47. The Federal Insecticide Fungicide and Rodenticide Act (FIFRA) governs the
whose registrations have been revoked, suspended or denied. In 1984, when the United States Congress amended the RCRA to include the regulation of hazardous waste exports to foreign countries, it did not cover poisonous pesticides like DDT and Chlordane that had been banned for use within the United States. Furthermore, other wastes in need of regulation, particularly incinerator ash, infectious waste and municipal garbage, were excluded from the scope of the restrictive definition of the Hazardous and Solid Waste Disposal Act (HSWA). As a result of the narrow definition, a number of cases involving toxic waste exports are not covered by the regulation.

Ironically, the exportation of such poisonous wastes and chemicals to developing countries has a boomerang effect on the environment and human health in developed countries. Statistics prepared by the Food and Drug Administration (FDA) confirm that about 10% of commodities imported into the United States from developing countries contain illegal (banned and unregistered chemicals) residues of pesticides. Accordingly, the United States imports more than two billion dollars worth of agricultural products from other countries including those from developing nations that utilize banned hazardous wastes and pesticides imported from the United States.

There is a strong linkage between the trade in hazardous wastes, and the environment and health of citizens in

registration, use and manufacture of pesticides. 7 U.S.C.A. §§ 136-136y (1988). It is illegal to distribute unregistered pesticides within the United States. Id. § 136j. However, pesticides whose registrations were revoked, denied, suspended or never sought can be exported freely by the manufacturer or distributor without any serious impediments. Id. § 136o(a). The condition that must be satisfied before exporting such unregistered pesticides is labeling, to protect persons that come in contact with the product. Id. § 136o(b). In addition, the exporters of pesticide products that are unregistered in the United States must obtain a statement from the foreign purchaser acknowledging the registration status of the product. Id. § 136o(a). This is an indirect way of informing foreign governments that pesticides which are unregistered are being exported by United States producers.

48. Id. § 136o(c).
50. The differences between RCRA and the Basel Convention have contributed to the reluctance of the United States to ratify the treaty. RCRA defines hazardous waste broadly as solid wastes which may “cause, or significantly contribute to an increase in mortality or serious illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.” 42 U.S.C. § 6903(5) (1988).
52. As early as the year 1979, the General Accounting Office identified that the United States imported commodities (such as bananas, coffee, cacao, sugar and tea) from developing countries (including India, Guatemala, Ecuador and Costa Rica) that indiscriminately used banned and unregistered pesticides imported from the United States. In using the multi-residue tests, the Food and Drug Administration was unable to detect 130 pesticides that were used, allowed and recommended in foreign nations for the cultivation of some crops including bananas, coffee, sugar, tomatoes and tea. GENERAL ACCOUNTING OFFICE, BETTER REGULATION OF PESTICIDE EXPORTS AND PESTICIDE RESIDUES IN IMPORTED FOOD IS ESSENTIAL, H.R. DOC. CED-79-43, 96th Cong., 1st Sess. (1979).
54. Overview of Waste Export Activities: Hearings Before the Subcomm. of Environ-
both developing and developed countries. Therefore, since no country is immune from the health and environmental problems that stem from the indiscriminate export of toxic wastes, chemicals and dangerous pesticides, it should be in the interest of both developing and developed countries to ensure that such wastes and poisonous chemicals are not exported to developing countries without adequate institutional, financial and legal capacity.

B. Disposal in an Environmentally Sound and Efficient Manner

Article 4 of the Basel Convention stipulates that hazardous waste exports will not be permitted if they are not managed in an "environmentally sound manner." With regard to the standards to be applied in ensuring that such wastes are managed in an environmentally sound manner, the Convention defines "environmentally sound management of hazardous wastes" as taking all practical steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes.\(^{55}\) However, ambiguity is created by the failure of the Convention to specify and clarify the meaning of practical steps.\(^{56}\)

Furthermore, the Convention provides that "the obligation of States in which hazardous wastes and other wastes are generated to require that those wastes are managed in an environmentally sound manner may not under any circumstances be transferred to States of import or transit."\(^{57}\) Although the provision clearly infers that the State of export is responsible for safe disposal abroad, Article 4 is not clear as to which country's safety standards should be applied in the country of import.

With inadequate infrastructure and utilities, ineffective regulatory framework and financial incapacity in African countries, companies from industrialized countries are sometimes hindered from rigorously applying stringent standards prevailing in their home countries in African countries. But the practice of exporting wastes to countries with weaker environmental policies and less stringent regulations constitutes a \textit{de facto} double standard. Taking into consideration the differences between environmental standards in industrialized and developing countries, there is a need to question whether such a double standard in environmental protection should be acceptable or tolerable.\(^{58}\) The consequences of applying such a standard include less environmental protection for

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\(^{55}\) Basel Convention, \textit{supra} note 35, art. 4, para. 8.


\(^{57}\) Basel Convention, \textit{supra} note 35, art. 4, para. 10.

those in the country of import resulting primarily in a higher risk of environmental hazards for not only those in the country of import but also those in other parts of the world including the country of export.\textsuperscript{59} The notion of equity refers to the principle of treating all people equally and in a just way despite the varied cultural, social, scientific and economic conditions in various countries.\textsuperscript{60} Furthermore, such unethical acts constitute a violation of Principle 23 of the United Nations Conference on the Human Environment.\textsuperscript{61}

However, there is evidence in international law to support the argument that the United States cannot force a domestic company to comply with American law and standard in a foreign country. In \textit{Fruehauf Corp. v. Massardy},\textsuperscript{62} the court held that an American company doing business in France must honor the contract regardless of the fact that it violated United States Transaction Control Regulations. As a result, it may be argued that U.S. companies involved in the trade with developing countries cannot be forced to apply U.S. environmental regulations in developing countries.

Furthermore, both industrial and developing countries are concerned that if rigorous domestic environmental protection standards are established, production costs will increase and the country that applied such standards will be at a competitive disadvantage vis-a-vis nations with lower standards. Developing countries justify the application of lower standards for lesser developed countries than for highly industrialized countries by asserting that they can hardly afford such environmental services and with the low level of industrialization, they have not exhausted the assimilative capacity of their environment.

But the development of an internationally uniform environmental standard will not eliminate the competitive advantage based on differences among countries in environmental control costs. For example, water quality standards depends on the level of industrial activity, the composition of that activity (dirty or clean processes), the spatial dispersion of the activity and the topographical and climate conditions, all of which vary among countries. Therefore, instead of applying a uniform international standard to all countries or no standards to developing countries, environmental standards should be applied on a case by case basis to industries within each country but based on a threshold established by an international organization.

\textsuperscript{59} See \textit{supra} notes 52-54 and accompanying text.

\textsuperscript{60} \textit{WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE} 8 (1987).

\textsuperscript{61} United Nations Conference on the Human Environment 11 I.L.M. 1416, 1420 (1972). Principle 23 provides that:

\begin{quote}
[It will be essential in all cases to consider the systems of values prevailing in each country and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries.]
\end{quote}

Besides the subject of applicable environmental standards, the question of transfer of technology has been a subject of much controversy between the industrialized and developing countries. Developing countries argue that they do not have access to adequate technology. However, industrialized countries convincingly argue that developing countries can not afford advanced technology or products of advanced technology.

Noting their limited administrative and technical capacities in evaluating, monitoring and controlling the international toxic trade, at the conference several experts from developing countries stressed the need to not only develop their own system of controlling the transboundary movement of toxic wastes, but also to strengthen their capacity to manage locally generated and imported wastes. Consequently, they succeeded in incorporating into the Convention their idea with a view to provide an incentive for reducing the generation of such wastes, and to discourage the international trade in toxic waste and its transfrontier movement, and to ensure the environmentally sound management of such wastes.

Accordingly, the Basel Convention provides that:

- parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes . only be allowed if: (a) The State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question m an environmentally sound and efficient manner.

In addition, the Convention provides that "each party shall take appropriate measures to: "[e]nsure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with environmentally sound and efficient management of such wastes. . ."".

However, ambiguity is created by the use of the word "efficient" in Article 4. For example, the increase in toxic waste dumping in developing countries was a response to the economics of waste disposal because the cost of disposal in industrialized countries increased tremendously. Therefore, the word "efficient" may be interpreted as meaning cheaper or more economical and would be used by some of these States to justify the enormous increase of toxic waste exports to developing countries who are

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65. Basel Convention, supra note 35, art. 4, para. 9(a).
66. Id. art. 4, para. 2(d).
67. Id. art. 4, para. 9(a). This section could be interpreted to mean that countries which have the "technical capacity" such as industrialized nations should not engage in transboundary movement of hazardous waste.
68. Id. art. 4, para. 2(d).
69. See supra notes 25-26 and accompanying text.
not technologically advanced enough to handle them. The provision is paradoxical because it is contrary to one of the motives behind the formulation of the Convention, namely to restrict the transfrontier movements of these wastes, particularly to such developing countries and to ensure proper disposal and management of hazardous wastes.

C. Waste Management versus Waste Prevention

It would appear that the prevention and reduction of the production of toxic waste is far more efficient than the management of such wastes. Evidence from surveys conducted between 1985 and 1986 of U.S. chemical plants by the Office of Technology Assessment revealed that industries have found it beneficial and efficient to reduce the amount of wastes produced. Yet, during the Basel Conference, States focused primarily on waste management and disposal and failed to emphasize the need for the development of scientific research and technical support to reduce and to prevent the generation of toxic wastes and for legal means of preventing the production of such wastes. Furthermore, the Convention is vague as to the degree to which wastes should be reduced and as to the method of garbage reduction. As long as inexpensive means of disposal alternatives are available, there will be little incentive to find and explore new directions, such as reducing wastes at their source. Since it has been determined that the cost of hazardous waste management is often higher than the cost to prevent waste production, policies based solely on waste management are not sustainable. A sustainable hazardous waste program should stress reducing both the volume and toxicity of waste to the minimum level possible and should include programs for recycling and reuse.

From the standpoint of the hard core environmentalist, the optimal level of pollution should be zero. On the other hand, environmental economists convincingly assert that the optimal level of pollution should be determined by comparing the costs associated with pollution with the benefits derived from the commodity whose production causes pollution. The optimal level of pollution occurs when the marginal pollution

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71. Id. at 8. An Ohio company, USS Chemicals which produces a wide range of chemicals was able to save about U.S. $100,000 in raw material costs by reducing air emissions by 400,000 pounds per year. MOYERS, supra note 1, at 110.
72. The Basel Convention addresses the need to decrease waste production by calling on parties to “ensure that the generation of hazardous wastes and other wastes is reduced to a minimum.” Basel Convention, supra note 35, art. 4, para. 2(a).
73. The Convention does not expressly stipulate that increased generation of wastes over the past decade has contributed to environmental degradation and that the trend of unsustainable development should be reversed.
74. Current control strategies are designed to manage the wastes produced rather than to avoid producing such wastes. Joanna D. Underwood, Managing hazardous wastes is not enough, UNEP INDUS. & ENV'T, Jan.-Mar. 1988, at 30.
75. STEPHEN D. CASLER, INTRODUCTION TO ECONOMICS 377 (1992).
costs equals the marginal pollution benefits. Pollution is a by-product of producing certain goods and services that provide utility to and are heavily demanded by consumers. If such goods and services associated with pollution were not heavily demanded by buyers, they would not be produced. Moreover, the prevention and reduction of wastes would entail some changes in the nature of goods and services provided to shoppers. Therefore, without a change in consumption patterns of customers and without the implementation of stringent regulatory measures, some profit making industries and producers would not have a strong incentive to prevent and reduce the production of wastes.

Therefore, in addition to conducting more scientific investigation on alternative waste prevention and reduction techniques, there should be more intensive research on and rigorous implementation of regulatory and economic means of inducing a change in consumption patterns of consumers and of providing economic incentives for companies to reduce and prevent the production of such wastes. While improving their own waste reduction and prevention techniques through scientific investigation, industrialized countries should assist developing countries in technical matters and training related to such techniques.

**D. Sovereign Right to Ban versus Right to Limited Ban**

In emphasizing the gap in disposal technologies and environmental infrastructure between industrial and developing countries, African countries proposed a total ban as opposed to a limited ban recommended by

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76. For example, economic instruments that have been used in inducing consumers to reduce the amount of garbage generated include user charges, disposal charges, production charges, subsidies, deposit refund systems, and a variable garbage rate structure. Deposit refund systems impose special taxes and fees on consumers and are designed to encourage recycling and to prevent pollution. They are often applied to beverage bottles. In the United States, ten States have executed mandatory deposit refund systems. The States that have implemented these deposit systems report that 80% to 95% of deposit containers are returned voluntarily for recycling. The economic incentive, five or ten cents per container, is sufficient to produce the desired consumer behavior. See John L. Moore et al., Using Incentives for Environmental Protection: A Review (Congressional Research Service 1989). Most product charges on waste have applied to nonreturnable containers, lubricant oils, plastic bags, fertilizers, pesticides, beverage containers and car fuels. Finland imposes high fees on non-returnable beverage containers while France charges fees on lubricants. In the United States, and particularly in Seattle, Washington, the “variable garbage waste structure” was implemented in January 1989. The waste reduction program charges residents according to how many garbage cans they fill. When citizens reduce the number of rubbish cans, they are rewarded with a lower solid waste collection bill. The basic rate structure is that one 30-gallon can collected each week costs $13.75 per month and each additional 30-gallon can costs $9.00. Following implementation of the program in 1989, monthly waste collection plummeted by about 30% in comparison with the prior year. See Janis D. Bernstein, Urban Waste Management and Environment, Alternative Approaches to Pollution Control and Waste Management: Regulatory and Economic Instruments 56 (Apr. 1991) (discussion paper, on file with the Fordham Environmental Law Report).
industrialized countries. The knowledge that foreign countries were using African territory as a dumping ground for hazardous wastes generated a strong reaction from African countries. In May 1988, the Organization of African Unity (OAU) adopted a resolution condemning this activity and called for a ban on the importation of wastes into the African continent. Disillusioned with the outcome of the Basel Convention, the OAU drafted the African Convention on the Ban on the Import of All Forms of Hazardous Wastes into Africa and the Control of Transboundary Movements of Such Wastes Generated in Africa. Frustrated by a series of tragic toxic waste incidents in their countries, African countries wanted to focus primarily on the total prohibition of the trade rather than on its regulation because they believed that a limited ban would imply legitimizing and acknowledging the right to engage in such a trade. Moreover, legalizing the business would allow for abuses of that right and would increase the financial inducement of African countries to import such wastes.

In support of the position taken by developing countries, a coalition of NGOs, including the Natural Resources Defense Council, International Organization of Consumers Unions, Greenpeace and the African Network of Environmental NGOs called for an outright worldwide ban on the transboundary toxic trade. Condemning the transfrontier movement of toxic waste to developing countries, and stressing that these countries have had enough difficulties in coping with wastes generated locally that they cannot afford to import, the President of the World Bank stated that the organization would not finance any activities connected with such hazardous waste exports to African nations. However, he also stated, that the World Bank would support developing countries in their effort to strengthen their own institutional capacity and domestic facilities for effective waste management through recycling, recovery and safe disposal.

78. Id. at 527.
79. The OAU members subsequently convened in Bamako, Mali and adopted the Bamako Convention on the Ban of the Import into Africa and the Control of the Transboundary Movement and Management of Hazardous Wastes Within Africa. See Kiss, supra note 77, at 533 n.101. The Bamako Convention is stricter than the Basel Convention, although its provisions are very similar to those in the Basel Convention. Id. at 533. The Bamako Convention prohibits and criminalizes the importation of any waste for any reason into Africa from non-contracting parties. It also provides for the cooperation and the creation of an enforcement mechanism. Id.
82. Id.
Arguing that a complete ban would be difficult, if not impossible to enforce, most industrialized countries proposed a partial prohibition of the toxic trade. Additionally, most delegates from developed countries asserted that an argument based solely on ethical considerations was not sufficient to warrant the total ban of the toxic trade and to prevent a country from engaging in exports, particularly if the country of import voluntarily accepts such wastes. In support of the view expressed by delegates from industrialized countries, Robert Krieps, the Luxembourg Minister of Environment, Justice and Cultural Affairs, addressing the delegates at the Fourth Session of the Ad Hoc Working Group, noted that an effort to stop the shipment of toxic waste overnight through a total ban would not only be fruitless but would lead to an outgrowth of illegal markets. However, he stressed the need to put an end, through a gradual process, to the trade which he candidly classified as "waste colonialism."

In favor of the view that toxic waste exports to developing countries should not be totally prohibited, a chief economist of the World Bank put forth a purely economic argument that the World Bank should encourage larger migration of dirty industries to developing countries because health impairing pollution should be done in the country with the lowest cost and the lowest wages and that the costs of pollution are likely to be non-linear as the initial increase in pollution would most likely have a very low cost, particularly in underpopulated countries in Africa that are under-polluted.

There is a convincing economic argument that a total ban on the toxic trade, like the ban on commodities, may make the wastes more attractive in the international market and consequently result in smuggling. For example, in 1988, when the Nigerian Government introduced a ban on the importation of goods such as rice with a view to improving the agricultural sector, there was an increase in smuggling from neighboring countries like Ghana coupled with elevated prices of such commodities. However, despite this effect that the total prohibition may have on the attractiveness of the toxic trade, African countries are still justified in insisting on being accorded the right to ban such a trade especially as they lack the financial and institutional capacity to monitor such activity. With industrialization and population growth, wastes are piling up faster...
in developing countries and, as such, they have enough difficulties with managing their own locally generated wastes that they can hardly afford to cope with wastes from other countries. Besides, a global ban would put more pressure on industrialized countries to speed up their efforts to develop alternative toxic waste reduction and prevention technology.

Accordingly, the Basel Convention recognizes and incorporates various aspects of dealing with the international toxic trade problem including economic, social, and ethical considerations of both developed and developing countries. African countries succeeded in ensuring the recognition of their right to ban the toxic trade while industrialized countries succeeded in incorporating a limited ban of the trade including the Articles requiring "prior informed consent" and "notification" before exporting such wastes. Each State party to the Convention was granted the sovereign right, recognized by all States, to prohibit the importation of such wastes into their country. Based primarily on a proposal by the African delegates, the Convention prohibits the exportation of toxic wastes to those countries that have prohibited its importation into their territories. It provides that "[p]arties shall prohibit or shall not permit the export of hazardous wastes and other wastes to the parties which have prohibited the import of such wastes."

Concerned about the effect the Basel Convention might have on their regional agreement banning the importation of toxic waste, members of the OAU successfully added provisions to the Convention that would protect regional interests. On banning the importation of wastes, State

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87. Although the Basel Convention prohibits the exportation of hazardous wastes to countries that have banned its importation, it failed to expressly categorize such acts as illegal in accordance with Article 9 which defines illegal traffic. Despite such failure, it can be argued that such acts are illegal, being in contravention of the Convention. See Basel Convention, supra note 35, art. 9(e).

88. Additionally, the trade was made subject to a number of restrictions and controls under the Convention. Id. arts. 4, 6 and 9.

89. Id. art. 4, para. 1(a)-(b).

90. Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Waste, U.N. Environment Programme, 3rd Sess., Agenda Item 6, U.N. Doc. WG.189/3 (1988). The delegates successfully recommended that the movement of hazardous wastes be prohibited to or through the territories of States or regions which had either enacted national laws or adopted regional instruments prohibiting such movements to or through their territories. In addition, they proposed preparing a register, which would be updated periodically, listing the states which have banned the toxic trade. Id. at 5.

91. Basel Convention, supra note 35, art. 4(b).

92. Basel Convention, supra note 35, art. 4, para. 2(e). The Article prohibits: the export of hazardous wastes or other wastes to a State or group of States belonging to an economic or political integration organization that are parties, particularly developing countries, which have prohibited by their legislation all imports, or if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner, according to criteria to be decided on by the Parties at their first meeting.

Id.
parties are required to inform other States\textsuperscript{93} and the Secretariat\textsuperscript{94} about this decision.

Supporting a limited ban on the international trade in toxic wastes, industrialized countries, particularly the United States, successfully pushed for "a prior informed consent" provision\textsuperscript{95} and the "notification" provision\textsuperscript{96} as alternatives to a total ban, primarily because they believed that there was nothing illegal about engaging in the trade if the importing country was fully informed of any hazards.\textsuperscript{97}

Accordingly, the Convention provides:

- that the generator or exporter shall notify in writing the competent authority of the State concerned of any proposed transboundary movements of hazardous wastes. Such notifications shall be in writing in a language acceptable to the State of import.\textsuperscript{98}

Furthermore, the Convention requires that parties "shall prohibit or shall not permit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import."\textsuperscript{99}

The prior informed consent procedure is designed to assure that no wastes are being exported to countries whose governments are unaware of the toxic transaction. The presumption was that if a government of an importing country was aware of the importation, they would ensure safe disposal.

Furthermore, the notification and consent provisions were intended to give the importing government time to halt unwanted shipments, to prevent waste smuggling and to discourage unscrupulous and secretive transfrontier movement of hazardous wastes. Some countries have taken advantage of the prior informed consent rule in bilateral agreements by refusing to import toxic wastes from the United States. The EPA reported that Mexico accepted only 30,000 tons out of 230,000 tons of waste proposed for shipment from the United States in 1987.\textsuperscript{100}

\textbf{E. State Responsibility Under International Law and the Basel Convention}

To ensure effective control and restriction of the trade in the transboundary movement of hazardous wastes, the Basel Convention stipulated that international waste trade would be declared illegal without the satisfaction of a number of conditions. For example, pursuant to the Ba-
sel Convention, a transboundary movement of toxic waste which takes place under any of the following circumstances shall be deemed illegal:

- without notification in accordance with the Convention, to all States concerned;\(^1\)
- without consent obtained from States concerned, through falsification, misrepresentation or fraud;\(^2\)
- that does not conform in a material way with the documents;\(^3\)
- that results in deliberate disposal of hazardous wastes or other wastes in contravention of this Convention and of the general principles of international law.\(^4\)

In addition, the Convention stipulates that any transboundary movement of hazardous wastes contravening the general principles of international law shall be deemed illegal.\(^5\) Illegal traffic is criminal under the Basel Convention.\(^6\)

An indirect approach has been taken in accordance with customary international law and some international agreements whereby States are obliged to take action to prevent persons under their jurisdiction from violating pollution standards. The problem with the indirect approach is that if a State were to exercise “due diligence” in enacting pollution control measures, the State may be seen as having discharged its international obligations, regardless of any “deliberate damage” actually caused by one of its nationals.\(^7\)

A more direct approach imposes State responsibility without the requirement of showing proof of State involvement in the polluting activity, either through an act or an omission. The determination of State responsibility is made simply by reference to observation of an act that violates internationally accepted pollution standards.

To create a solid justification for the doctrine of strict liability in international law, distinguished publicists\(^8\) have turned to the decisions of international tribunals.\(^9\) International jurists have put forth convincing arguments that these cases point to the emergence of strict liability as a principle of public international law.\(^10\) The opinions in these cases recognize the applicability in international law of such related common law

102. *Id.* art. 9(b).
103. *Id.* art. 9(c).
104. *Id.* art. 9(d).
105. *Id.* art. 9(e).
106. *Id.* art. 4, para. 3.
107. CLYDE EAGLETON, THE RESPONSIBILITY OF STATES IN INTERNATIONAL LAW, 213 (1928).
principles as good neighborliness.\textsuperscript{111} Moreover, the cases provide support for the basic rule that a State is responsible for all activities taking place within its territory and may be held liable should damage caused to the interests of other States reach pollution threshold, even if the State has done all it could to prevent the injury. It is illegal for states to use or permit the use of their territories for acts that would constitute harm to persons or to the environment in other countries.\textsuperscript{112} For example, the \textit{Trail Smelter Arbitration} between the United States and Canada held that under the rule of international law and the law of the United States, no State has the right to use or allow the use of its territory in such a manner as to cause injury by fumes to property, or persons in another territory when the case is of serious consequence and when the injury is established.\textsuperscript{113} The holding in the \textit{Corfu Channel} case reinforces the principle in \textit{Trail Smelter} and broadens the doctrine of State responsibility to instances where countries have omitted to act or to prevent the act in their territory.\textsuperscript{114} Similarly, Principle 21 of the United Nations Declaration on the Human Environment provides that States have a sovereign right to exploit their resources in accordance with their environmental policies and the corresponding responsibility to ensure that activities within their jurisdiction do not cause damage to the environment of other States or to areas beyond the limits of national jurisdiction.\textsuperscript{115} Effective implementation of the strict liability rule requires willingness and cooperation on the part of States. The debate over the adoption of Principle 21 revealed that though States agreed in theory to accept the responsibility to prevent extraterritorial damage caused by activities under their control, it was impossible to reach agreement on the content of the responsibility should damage occur.\textsuperscript{116} Many States were not prepared to pay compensation in as many situations as the rule of strict liability would require and some States preferred a form of "fault" standard in which liability would attach only to "negligence of a state, imputable either to inaction or the failure to fulfil specific commitments."\textsuperscript{117} Industrialized states with large investments in polluting industries and developing countries who are anxious to retain maximum control over economic affairs within their respective territories are concerned about attempts to create any general liability regime that requires what may amount to substantial

\textsuperscript{111} \textit{Id.}

\textsuperscript{112} The facts of these cases are not on all fours with the transfrontier movement of hazardous wastes. But like the international traffic in toxic waste, the cases involve acts in one State which injure persons or property in other States. Therefore, the principles laid down in these cases could apply to the international toxic trade.


\textsuperscript{116} \textit{Id.} at 493-94.

\textsuperscript{117} \textit{Id.} at 495.
payments for extraterritorial damage done by activities legally controlled by their respective countries.

Whether or not strict liability has emerged as a general principle of international law in environmental matters, there is some evidence that it is increasingly evident in State practice.\(^{118}\)

Likewise, the Basel Convention seems to impose responsibility on the State of export for acts committed by persons within its jurisdiction or control. For example, the Convention provides that:

> in case of transboundary movement of hazardous wastes deemed to be illegal traffic as a result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are:
> (a) taken back by the exporter or generator or, if necessary by itself into the State of export \(^{119}\)

In addition, the Convention imposes a responsibility on the State of export to re-import if the transboundary movement was illegal \emph{ab initio}.\(^ {120}\)

The provision clarifies the issue of responsibility for illegally exported waste. By requiring that exporters would have the responsibility to recover the wastes rejected elsewhere, Article 9 of the Convention was intended to effectively put pressure on the exporting State to try to police their shores more carefully. This would also help to reduce illegal traffic and to alleviate some of the complications resulting from situations where unsuccessful attempts are made to dump toxic wastes in different territories.\(^ {121}\) An example of this problem was illustrated by the ship “Khian Sea,” which carried 14,000 tons of incinerator ash from Philadelphia. The ship’s cargo was rejected in a number of countries including Honduras, Bahamas, Bermuda, Panama and Guinea-Bissau. Consequently it sailed to Haiti, where it was finally ordered to leave after unloading about 3,000 tons of ash.\(^ {122}\) This was only the beginning of an eighteen month voyage that took the ship across the Atlantic around West Africa and the Pacific. In desperation, the owners, a waste disposal company named the Amalgamated Shipping Corp., changed the ship’s name to “Felicia” in Yugoslavia’s Adriatic coast and sold it to Romo Shipping Inc., a waste disposal and shipping company.\(^ {122}\)

\(^{118}\) Strict liability was adopted in 1969 by the Consultative Assembly of the Council of Europe in a draft convention on water pollution. See \textit{Draft European Convention on the Protection of Fresh Water Against Pollution, Adopted by Recommendation 555 (1969) by the Consultative Assembly of the Council of Europe May 12, 1969 reprint in \textit{International Protection of the Environment} 5748, 5745-55} (Bernd Ruster et al. eds., 1977). Although the draft convention was rejected by European governments, because it permitted private foreign parties to sue States directly, the agreement is a manifestation of the willingness of States to extend the application of strict liability to activities other than those normally termed “ultrahazardous” and is a step towards enhancing the effectiveness of liability regimes.

\(^{119}\) Basel Convention, \textit{supra} note 35, art. 9.

\(^{120}\) \textit{Id.}

\(^{121}\) Helmore, \textit{supra} note 97.

fully attempted to dock in Sri Lanka, Indonesia and the Philippines. The ship was renamed “Pelicano” after which it appeared in Singapore in November 1988, without its poisonous cargo and no one knew exactly where it had dumped its waste.123

The captain denied having dumped the wastes at sea, but refused to say where he had unloaded the cargo.124 Philadelphia (named as the original waste producer) denied legal responsibility, claiming that it entered into a “good faith” contract with the waste disposal firm Joseph Paulino & Sons and submitting that the issue was between that firm and the companies that it hired. The argument, primarily based on ethical grounds, against Philadelphia for contracting with Paulino to dispose of its waste was not sufficient to hold the city responsible — especially if the city acted in good faith. However, following the principle laid down in international law, particularly Corfu Channel, it can be convincingly argued that in knowing how dangerous its toxic waste was and the difficulty it had experienced in attempting to dispose of such wastes, the city of Philadelphia must have foreseen the possibility that the wastes would be disposed of outside Philadelphia and was obliged to ensure that the company dispose of such wastes in an environmentally sound manner. The doctrine of strict liability, if enforced internationally, could be applied to hold the city of Philadelphia liable without fault for wastes exported to developing countries.

Article 9 of the Convention is ambiguous as to whether or not the exporting State should apportion responsibility among participating companies. This uncertainty could allow a State to have the discretion to decide whether it wants to force a liable company to pay compensation for illegal traffic or to do it itself and then seek indemnity.

The Convention provides that the parties shall cooperate with a view to adopting, as soon as practicable, a protocol setting out appropriate rules and procedures in the field of liability and compensation for damage resulting from the transfrontier movement of wastes.125 This provision is consistent with Principle 22 of the United Nations Declaration on Human Environment, which provides that States should cooperate to develop further international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.126

However, the Basel Convention was weakened at the time of its adoption by the failure of State parties to set out such appropriate rules and procedures. Without effective sanctions and provisions for liability, the

123. Moyers, supra note 1.
THE BASEL CONVENTION

Constitution acts more like a code of conduct. In addition, State parties to the Convention failed to adopt a civil liability regime like that of CERCLA. Industrialized countries, particularly the United States, blocked the proposal of developing countries to adopt a strict regulatory regime, such as that of CERCLA, which would have required retrospective liability for companies that had illegally disposed of wastes in African countries. The proposed "international superfund" provision was intended to hold such companies liable to clean up their abandoned waste disposal sites in Africa.

With a view to enhancing the effectiveness of the Convention in controlling the toxic trade, the first working group of Legal and Technical Experts met in Geneva in 1990 to develop elements which might be included in a Protocol on liability and compensation for damage resulting from the transboundary movement of hazardous wastes. Matters to be covered were divided into the following sections: introduction of the scope of the liability protocol, civil liability and compensation and international liability and compensation and procedures.

The liability regime, which is currently being drafted, addresses civil liability for illegal traffic in hazardous wastes. The draft provides for the exclusion of incidents specifically covered by international or regional instruments on liability, and compensation with regard to land, air or maritime transport of hazardous wastes, noxious substances or the dumping of waste at sea.

The proposed draft excludes from within the scope of the liability protocol, claims falling solely within the national jurisdiction of a State party and thereby resulting in a denial of redress under international liability regime to a victim of damage caused by transboundary movement of hazardous wastes. This denial constitutes an injustice to the victim especially in developing countries where procedural delays in courts are very common and the law of torts is not yet developed. Strict liability was made subject to a number of exonerations, including acts of armed conflict and of civil war and unforeseeable natural phenomena of an exceptional character. No exonerations were permitted for illegal traffic under the Convention. Some delegates supported channelling liability as a general rule to the generator except where a disposer duly authorized to

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127. See supra note 22 and accompanying text. The common law courts have interpreted CERCLA's liability scheme to imply that Congress intended to employ the common law concept of joint and several liability. The common law system allows a court to impose joint and several liability on a case-by-case basis where such liability will further the statutory purpose of making available responsible parties financially liable for the entire cleanup. See United States v. Chem-Dyne Corp., 572 F. Supp. 802, 807-08 (S.D. Ohio 1983). CERCLA adopted the polluter pays principle which imposes strict liability on the polluter for all environmental and public health costs associated with a hazardous substance. A polluter is any party that has a financial share in the hazardous substance. ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION LAW, SCIENCE, AND POLICY 41 (1992).

128. See supra note 22 and accompanying text.

129. See supra note 38, at 26-27.
receive the wastes has taken charge of them. Others supported allocating liability to any person responsible for transfrontier movement or disposal of wastes, based on joint and several liability. There is no statute of limitations for filing claims for illegal traffic.

Basel Convention members met again in March 1991 to discuss other elements that might be included in the document, particularly international liability and compensation.\textsuperscript{130} Part two of the draft protocol to the Convention provides that an international liability regime should ensure that resources are available for prompt action in case of damage resulting from illegal traffic and are adequate for compensating the victim to the extent that compensation for such damage for civil liability is inadequate or not available.\textsuperscript{131} The international liability fund was established in accordance with Article 14 of the Convention.\textsuperscript{132} Moreover, the State is to provide compensation for damage to the extent that it (compensation) is inadequate or not available under the civil liability provision and/or from the international liability fund.

Concerned about the limited financial and technical capacity of the international fund to function effectively, the member States proposed the incorporation into the protocol a means to generate operating funds. Member States provided that the international fund should be financed by appropriate levies from persons involved in the generation, transboundary movement and disposal of toxic waste such as generators, exporters, importers, disposers and/or States. In carrying out its study on the financing, operation and management of the fund, the Secretariat was required to address a number of outstanding questions listed in the Annex to the Report of the Ad Hoc Working Group.\textsuperscript{133} The contents of the Annex included the basis on which to determine levies imposed on private parties and on States; who should collect the levies; how collected monies should be held pending transfer to the fund; who should maintain and administer the fund; the accounting system required to run the fund; the cost of administering the fund; how contributions should relate to the amount of compensation to be provided; the expected average cost of an incident covered by the protocol; the mechanisms and standards that could be used to determine how and when funds should be dispensed and the extent to which the fund should collect back the monies expended.\textsuperscript{134} In trying to provide an efficient means of generating funds, States failed to provide a system such as taxation of exports based on the "polluter

\textsuperscript{130} Ad Hoc Working Group of Legal and Technical Experts to Develop Elements Which Might Be Included in a Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movement and Disposal of Hazardous Waste and Other Wastes, U.N. Environment Programme, 2d Sess., U.N. Doc. WG.1/2/3 (1991) [hereafter Working Group of Legal and Technical Experts]. (This discusses the need for a comprehensive international liability regime with or without elements of State liability).

\textsuperscript{131} Id. at 5 n.3.

\textsuperscript{132} Basel Convention, supra note 35, art. 14, para. 2.

\textsuperscript{133} See Working Group of Legal and Technical Experts, supra note 130, at 9.

\textsuperscript{134} Id.
pays” principle which would act as a disincentive to exporters of such wastes. Given the complexity and sensitivity of the subject matter of State liability and compensation, particularly the possibility of imposing strict liability on States for damages resulting from hazardous waste export, it is likely that no final decision will be taken during the conference.

II. ENFORCEMENT AND COMPLIANCE

Fully aware of the limited institutional, financial and technical capacity of developing countries to implement the Basel Convention, member States did not specify the time within which it should be implemented. With limited technical, financial and institutional capacity, implementation at the domestic level, particularly for those in developing countries, involves a gradual process. Varying interpretations and diverging export programs in different countries slows down the pace of an effective implementation process.

The language of the Basel Convention infers that the Secretariat was intended to enhance the implementation of the Convention. It is required, among other things, to act as a coordinator of activities and a mediator. However, its activities are somewhat limited. For example, the Convention states that: “[t]he functions of the Secretariat shall be . . . [t]o assist Parties upon request in their identification of cases of illegal traffic and to circulate immediately to the Parties concerned any information it has received regarding illegal traffic.”

Concerned about the ability of the Secretariat and of developing countries with inadequate technical and financial capacity to monitor and to prevent illegal toxic trade, Nigeria, on behalf of the developing countries, unsuccessfully proposed that State parties should be obliged to cooperate amongst themselves and with non-parties as well as NGOs in the dissemination of information on the movement of vessels carrying such wastes. Unfortunately, most industrialized countries, including the

135. See supra note 127 and accompanying text.
136. For example, in some European countries, the implementation of EEC Directives regulating the waste trade has been slow. Only four countries, Greece, Denmark, Belgium and Italy, have implemented it at the domestic level. See JIM VALLETTE, THE INTERNATIONAL TRADE IN WASTES: A GREENPEACE INVENTORY (1989).
137. Basel Convention, supra note 35, art. 16.
138. Id. In addition, the Secretariat’s functions include assisting the States upon request in such areas as the handling of the notification system, the management of wastes and the monitoring of hazardous wastes and other wastes. Id. The Secretariat was intended to act as a clearing house to receive information on a number of decisions taken by States including steps to limit, ban and consent totally or partially to the transboundary movement of hazardous wastes. But in carrying out its functions, especially its monitoring role, the Secretariat is required to act only on request. The provision would have been more effective if the Secretariat could have acted on its own initiative.
United States, blocked the incorporation of this proposal into the Convention. Therefore, the Convention has a weak implementation mechanism which is aggravated by the failure of States to provide an effective means of enhancing the technical and financial resources of developing countries. Without these resources, the goals of the Convention will justifiably be perceived by States as mere aspirations which cannot be achieved.

Additionally, the enforcement provision through the International Court of Justice is inadequate for failure to provide a mechanism whereby individuals and environmental organizations can have *locus standi* to enforce proceedings.\(^\text{140}\)

Despite the dissatisfaction felt by States during the Basel negotiations, some countries may attempt to comply with its provisions, to the extent that it is consistent with the positions that they adopted during the negotiations, while others might try to take advantage of its weaknesses to justify noncompliance. In addition, noncompliance, like the question of implementation, could also stem from a lack of technical capacity and not from a lack of will on the part of nations. States are sovereign and there are no effective sanctions imposed upon them for failure to abide by their obligations under the Convention. States might subscribe to treaties as a result of a desire to appear cooperative without necessarily intending to comply. Consequently, when it comes to implementing their obligations, countries might find it inconvenient to do so and seek ways of avoidance. However, States may still be motivated by public opinion and moral pressures of the international community and the expectation of reciprocity and comity to ensure compliance and implementation.

**Conclusion**

The Basel Convention is evidence of a positive step forward and the first attempt by the international community to restrict the uncontrolled trade in toxic waste and to ultimately eliminate such international transactions. It has signaled the international resolve to eliminate the danger that hazardous wastes pose to human health and to the environment. The Convention has a number of strengths intended to enable States to achieve the aim of restricting the international toxic trade. The strengths include its provision for the following factors responsible for illegal traffic: recognition of the sovereign right of States to decide whether or not to ban the toxic trade; and the requirement of prior informed consent, notification and response; requirement that the country of export ensure that wastes disposed of are managed in an environmentally sound manner.

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\(^{140}\) The Convention provides that if parties cannot settle their disputes through negotiation or any other means, the dispute, if the parties to the dispute agree, shall be submitted to the International Court of Justice or to arbitration under the conditions set out in Annex VI on arbitration. Basel Convention, *supra* note 35, art. 20.
In addition, the Convention has attempted to accommodate the conflicting interests of both developed countries, in ensuring a limited ban, and of developing nations in incorporating the right to ban the toxic trade.

As illustrated, although a total ban on the toxic trade, like the ban on some commodities, may make the wastes more attractive in the illegal international market and consequently result in smuggling, African countries are justified in insisting on being accorded the right to ban the trade in toxic poisons, especially since they lack the legal, financial, and institutional capacity and technical know-how required to manage and dispose of such wastes. With industrialization and population growth, wastes are piling up fast in developing countries and as such, they have enough difficulties with managing their own locally generated wastes that they can hardly afford to cope with wastes from other countries.

Regardless of its strengths, the Basel Convention is bedeviled by a number of loopholes and ambiguities which may hinder its effective application and the achievement of its aims. Some of the ambiguities may be deliberate. For example, the loophole created by the definition of hazardous wastes was probably built into the Convention to allow for political and scientific evolution of its definition and to allow States some discretion in this area. However, some of the major pitfalls of the Convention stem primarily from the failure of States to effectively deal with some of the major underlying causes of the international toxic trade problem, particularly key issues concerning:

- lack of effective regulatory and economic means of inducing consumers (change in consumption patterns) and industries to reduce and to prevent the quantity of wastes generated;
- inadequate technical and financial resources in developing countries;
- lack of stringent domestic environmental regulations in developing countries;
- inadequate research and technical assistance in industrialized countries, to reduce the production of toxic wastes;
- failure of industrialized countries to provide effective toxic waste export controls;
- lack of environmental awareness in developing countries.

Therefore, the pitfalls of the Convention include the failure to provide an effective information and monitoring system of identifying and keeping track of the quantity and quality of wastes involved in the international waste trade; lack of an effective international civil liability regime; lack of a strong implementation and enforcement mechanism; usage of the word "efficient" could be used by industrialized countries to justify enormous shipment to developing countries thereby defeating the aim of restricting the traffic to third world countries;\textsuperscript{141} failure to provide an effective means by which developing countries can strengthen their finan-

\textsuperscript{141} Basel Convention, \textit{supra} note 35, art.4, para. 2(d), 9(a).
cial, legal, technical and institutional capacity to implement the Convention; omission to define the meaning of “practical steps” with respect to the disposal and management of wastes in an environmentally sound manner; failure to provide an environmental education component particularly for those in developing countries; inadequate financial and technical capacity of the Secretariat whose functions have been restricted; main emphasis on waste management/disposal rather than on the development, promotion and enhancement of waste reduction and prevention techniques; failure of States to require that countries, particularly industrialized nations, provide more research support and devise technical, economic and legal means to reduce waste production and lack of effective means of generating funds for compensating victims of damage resulting from illegal traffic of toxic wastes.

Given the aforementioned pitfalls, countries, particularly African countries, may be hindered from implementing the provisions of the Convention in their decision to ban the toxic trade. Much work remains within States before the ban can be effectively implemented, particularly in African countries. In the meantime, developing countries should introduce the following domestic measures: establish stringent and enforceable environmental regulations within their territories; increase the level of environmental awareness of the public through wider and improved methods of education; develop a sound system of exchanging information and scientific data between developed and developing countries; and enhance institutional and technical capacity to monitor, manage, and reduce the generation of wastes through training programs and workshops organized for local personnel. These measures will be achieved with the financial and technical support of international funding organizations like the World Bank and industrialized countries.

In turn, industrialized countries should introduce tighter regulations to control the export of toxic wastes from their countries, particularly to those countries that have banned its importation. As long as some industries have an easy escape valve, they will continue to make use of it.

Considering the rapid rate at which wastes are being generated not only in industrialized countries but also in developing countries, introducing and implementing tight toxic waste export controls in industrialized countries is not sufficient. The waste problem should be tackled at its source and member States should develop legal, institutional and economic means of inducing waste reduction and prevention, including conducting more research on this subject.

International cooperation in this area of toxic waste trade is vital. An international body consisting of technical experts from industrialized, newly industrialized and developing countries should be established. This body should be involved in the following activities: investigating and providing technical support on issues concerning the establishment of effective regulatory, technical and economic mechanisms of inducing the reduction and prevention of toxic waste produced; monitoring and
keeping track of the quantity and quality of all the wastes involved in the international toxic trade; and tracking down illegal waste dealers and determining the toxicity of the wastes that are exported.

The international liability regime should be modeled after the United States CERCLA provisions. The regime should impose strict liability on generators, transporters and past and present owners or operators of toxic waste sites for the cost of remedial action and for damage resulting from illegal dumping of wastes in developing countries.

To enhance the financial capacity of the recently established international liability fund which is charged with the task of providing resources for compensation in case of damage resulting from illegal waste traffic, an efficient system of generating funds should be introduced including the taxation of waste exports based on the polluter pays principle.