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COMMENT

The Controls on the Transfrontier Movement of Hazardous Waste From Developed to Developing Nations: The Goal of a "Level Playing Field"

I. INTRODUCTION

In the 1970s, the United States Congress began passing national environmental legislation. One reason for such legislation was to "level the playing field" among the fifty states so that economic advantage did not accrue to one state at the expense of environmental quality and public health.¹ The world now faces a similar need for environmental legislation on an international level.

Environmental laws of individual nations have become more and more divergent as developed countries, such as the United States, enact tougher environmental laws, while less developed nations fail to enact any environmental regulations. The variant standards of these environmental laws have encouraged companies in industrialized nations to take advantage of the developing countries' lax environmental regulations, thereby enhancing their economic competitiveness at the cost of human health and environmental quality in less developed nations.

This situation has resulted in a growing international trade in industrial hazardous waste.² As developed nations increasingly export hazardous wastes to developing nations, the need for international

¹ Barnes, *The Growing International Dimension to Environmental Issues*, 13 COLUM. J. ENV'T'L. L. 389, 394 (1988).

² "Hazardous waste" refers to the unused by-product of the industrial process resulting from the manufacture of goods and services. It becomes necessary, however, to refer to the "legal" definition of hazardous waste in determining exactly which wastes are regulated under specific environmental regulations. Such "legal" definitions are given throughout this Comment.

environmental legislation which will "level the global playing field" becomes apparent.³

Part II of this Comment explains why occurrences of transfrontier movements of hazardous waste are increasing and why this presents a problem. Part III summarizes the United States' attempt to regulate the export of hazardous waste and briefly summarizes two previous international regulatory efforts to control the transfrontier flow of hazardous waste. Part IV outlines and explains some of the major provisions of the most recent international regulatory attempt to control transfrontier hazardous waste movement, the United Nations Environment Programme Convention ("UNEP Convention"). Part V of this Comment compares the UNEP Convention with the growing call to ban all transfrontier movement of hazardous waste. This section also discusses the ability of the UNEP Convention and a ban on transfrontier hazardous waste movement to provide a solution to the problems herein presented. This Comment concludes that compliance with the UNEP Convention best achieves the ultimate goal of a "level playing field."

II. SCOPE OF THE PROBLEM

In the past, most transfrontier movement of hazardous waste occurred between developed nations.⁴ Increasingly, however, the movement is shifting toward less developed nations.⁵ The first of a number of highly publicized events, involving the transfrontier movement of hazardous waste to developing nations, came in 1980 when the President of Sierra Leone rejected a twenty-five million dollar offer from Nedlog

³ The ultimate goal of a "level playing field" would be furthered if all nations adopted substantially similar regulations governing hazardous waste disposal and had the ability to enforce such laws. Thus, companies in industrialized nations would have little incentive to ship their waste to developing countries or to open up manufacturing plants in these countries in order to avoid stricter environmental regulations at home. In addition, companies located in countries which currently have strict disposal laws would not suffer an economic disadvantage by complying with such laws. Developing countries must also develop the information and technology necessary to handle hazardous waste before the playing field will be truly level.

⁴ Traditionally, the United States has exported the majority of its toxic waste to Canada where regulations are less stringent. Porterfield & Weir, *The Export of U.S. Toxic Wastes*, THE NATION, Oct. 3, 1987, at 341. The United States signed a bilateral agreement with Canada in October 1986. Under this agreement export of hazardous waste is allowed if no objection is heard within thirty days of receipt of notification of the shipment. Rublack, *Controlling Transboundary Movements of Hazardous Waste: The Evolution of a Global Convention*, 13 THE FLETCHER FORUM 113, 116 (1989). In addition to the bilateral agreement with Canada, the United States signed one with Mexico in November 1986. Under this agreement only recyclable waste can legally be exported to Mexico, and only with the explicit consent of the Mexican government. *Id.*

⁵ Porterfield & Weir, *supra* note 4, at 341. Although most transfrontier movement of hazardous waste still occurs between industrialized nations, this paper focuses solely on movements from developed to developing countries.

Technologies Group, Inc., a Colorado Company, to ship hazardous chemical wastes to his country for processing and disposal.⁶

Since 1986, United States and European companies have exported waste to at least eleven developing nations,⁷ while several other nations have been proposed as dumpsites.⁸ More than fifty plans to ship waste from the United States and Europe to developing nations were recorded from mid-1987 to mid-1988 alone.⁹ The trend toward using developing nations as disposal sites appears to be a result of both the economic and legal positions of the world's nations.¹⁰

Developing nations have had little contact with industrial hazardous wastes because they have few production facilities which generate them.¹¹ Thus, in the past it proved unnecessary for developing countries to enact laws dealing with such wastes.¹² Contrarily, increased public consciousness of the environment within industrialized nations has led to the passage of stricter legislation regarding the disposal of hazardous wastes.¹³

As hazardous waste storage and disposal regulatory standards in the United States and other industrialized nations become more stringent, disposal sites become more scarce¹⁴ and costs of compliance rose.¹⁵

⁶ Rublack, *supra* note 4, at 114.

⁷ These countries include Brazil, Guinea, Haiti, Lebanon, Mexico, Nigeria, Sierra Leone, South Africa, Syria, Venezuela, and Zimbabwe. *Greenpeace Calls for World Ban on International Traffic in Waste*, 11 Int'l Env't. Rep. (BNA) 433 (Aug. 10, 1988) [hereinafter *Greenpeace Calls for World Ban*]. For example, in March 1988, hazardous waste was left on the beaches of a Guinean resort island by a Norwegian company. The waste was later discovered to be incinerator ash from the United States. Nanda & Bailey, *Export of Hazardous Wastes and Hazardous Technology: Challenges for International Environmental Law*, 17 DEN. J. INT'L L. & POL'Y 155, 157 (1988). In May 1988, an Italian construction firm shipped 4,000 tons of toxic industrial waste to the port of Koko, Nigeria. The cargo was stored in a vacant lot in a residential area for \$100 a month. The Italian firm had applied to import "non-explosive, non-radioactive and non-self-combusting" industrial chemicals. When the scheme became public, fifteen people were arrested and Nigeria has since threatened execution for anyone found importing toxic waste for profit. *Id.*

⁸ *Greenpeace Calls for World Ban*, *supra* note 7, at 433. Caribbean and Latin American countries rejecting waste include Bahamas, Belize, Bermuda, Costa Rica, Dominican Republic, Guatemala, Haiti, Honduras, Martinique, Mexico, Netherland Antilles, Panama and Venezuela. *Id.* at 433-434.

⁹ Helmore, *Dumping on Africa: West Exports Its Industrial Wastes*, The Christian Science Monitor, July 1, 1988, at 8, col. 1. It is likely that actual shipments were much greater since many companies do not report plans to export hazardous waste.

¹⁰ See Handley, *Hazardous Waste Exports: A Leak in the System of International Legal Controls*, 19 ENVTL. L. REP. 10171 (1989).

¹¹ *Id.*

¹² *Id.*

¹³ Nanda & Bailey, *supra* note 7, at 155.

¹⁴ For example, the Hazardous and Solid Waste Amendments of 1984 gave facilities that handle hazardous waste until November 8, 1985 to apply for a final permit (certifying that they were in compliance with certain interim requirements). By April 1986, the Environmental Protection

Companies generating such wastes thus face rising manufacturing costs resulting from the need to comply with increasingly tougher disposal laws.¹⁶ As a result of high compliance costs,¹⁷ companies located in developed nations find it increasingly difficult to compete in the world market.

When the cost of exportation and disposal of hazardous waste in a foreign location is lower than the cost of disposal at home, companies will export their hazardous waste.¹⁸ A company's exportation of hazardous waste to developing nations often drastically reduces disposal costs and thus enhances competitiveness on both a national and international level.¹⁹ As the legal and technical standards of disposal rise, and as liability costs in industrialized nations increase, more and more companies will likely seek the more economical choice to export their waste to developing countries.

On the other side, developing nations see toxic waste trade as a source of much needed revenue.²⁰ For example, although the agreement was aborted, if Guinea-Bissau had accepted toxic wastes from the United States company Lindaco, Guinea-Bissau would have received \$120 million a year, an amount close to its gross national product.²¹ Thus, the business of hazardous waste import is considered to have great financial

Agency's Office of Waste Programs Enforcement reported that two-thirds of land disposal facilities had lost their interim status. Thus, even though most of these facilities remained in operation to dispose of non-hazardous wastes, the number of facilities handling hazardous waste declined greatly. *International Export of U.S. Waste: Hearing Before A Subcommittee of the Committee of Government Operations House of Representatives*, 100th Cong., 2d Sess., 18-19 (1988) [hereinafter *International Export Hearing*].

¹⁵ Average toxic disposal costs in United States' landfills rose from \$15 a ton in 1980 to \$250 a ton in 1988. Brooke, *African Nations Barring Foreign Toxic Waste*, The New York Times, Sept. 25, 1988, at 18, col. 1. Disposal is more costly not only because disposal sites are scarce, but also because the regulations are harder to meet. For example, many hazardous wastes that could have been disposed of in landfills in the past are now required to be destroyed by incineration. ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES 8 (1985) [hereinafter OECD].

¹⁶ *Id.*

¹⁷ For example, incinerator ash can cost upwards of \$1,000 a ton to dispose of in the United States. Incineration of polychlorinated biphenyls (PCBs) can cost up to \$2,000 a ton in Western Europe. Ertugrul, *EC Faces Uphill Struggle To Clean Up Toxic Waste Exports*, The Reuter Library Report, Aug. 4, 1988.

¹⁸ OECD, *supra* note 15, at 8. Cost includes such factors as time and potential liability. Many companies, now operating exclusively as transporters of hazardous waste, have reaped substantial profits by helping other companies reduce such cost factors.

¹⁹ It has been estimated that dumping in developing nations results in savings of approximately seventy-five dollars a ton. *Id.* at 9. This figure does not include the additional savings from possible avoidance of Superfund liability.

²⁰ Millman, *Exporting Hazardous Waste: From Developed to Third World Nations*, 92 TECH. REV. 6 (1989).

²¹ *Id.*

potential.²² Unfortunately, this need for scarce revenue leads to bargain-basement contracts whereby developing countries agree to import hazardous waste at prices drastically below those the exporting companies would have experienced for disposal at home.²³

Economically this seems an ideal market situation. Companies in developed countries enter the hazardous waste market to buy waste disposal services, while developing countries enter the market to sell such services. Under the economic model, the market should dictate the price received and all parties should be happy with the resultant transaction. Several problems arise from such transactions.

Unlike the economic model that assumes perfect information, developing countries accept hazardous waste shipments with little understanding of the health and environmental dangers such wastes present.²⁴ Current United States regulations are structured in a manner which allows companies to avoid providing complete information regarding the wastes they export.²⁵ In addition, developing countries may not know what wastes they receive due to mislabeling and the deliberate mixing of harmless material with hazardous waste.²⁶ For example, hazardous substances have been misrepresented as cleaning fluid, fertilizer and construction material.²⁷ Thus, even if developing countries have a full understanding of the problems of hazardous waste disposal, they often cannot be sure of which wastes they receive and will therefore be unable to treat them in an environmentally-safe manner.

To complicate matters further, in almost 100% of the cases, developing nations do not possess adequate facilities to properly dispose of much of the hazardous waste they receive.²⁸ United Nations experts know of no developing country which possesses an incinerator capable of safely destroying hazardous waste.²⁹ Almost all developing countries

²² Hiltzik, *West's Waste Dumping Stirs African Controversy*, Los Angeles Times, June 19, 1988, at 9, col. 1.

²³ *Id.*

²⁴ Schierholz, *U.S. Resists Limits on International Toxic Wastes Trade*, The Christian Science Monitor, Nov. 7, 1988, at 8.

²⁵ See *infra* text accompanying notes 54-64.

²⁶ *The Global Poison Trade*, Newsweek, Nov. 7, 1988, at 67.

²⁷ In 1985, two Americans were jailed in the United States for exporting toxic waste to Zimbabwe. These wastes were labeled as cleaning fluid. Helmore, *supra* note 9, at 8, col 1. A ship, the Khian Sea, unloaded 3,000 tons of incinerator ash labeled as fertilizer on a beach in Haiti and incinerator ash left on Guinea's Kassa Island was labeled as construction material. *Greenpeace Calls for World Ban*, *supra* note 7, at 433.

²⁸ Ertugrul, *supra* note 17.

²⁹ Bollag, *Developing Countries Win Support for Curbs On Toxic Dumping*, The New York Times, Nov. 22, 1988, at C4, col. 2.

dispose of such wastes in landfills.³⁰ Experts have concluded that landfills can never provide a safe means of hazardous waste disposal because the heavy metals and other toxic materials contained in them will eventually dissolve and wash out.³¹ Additionally, developing countries do not possess adequate administrative structures to control the risks of hazardous waste disposal.³² Corrupt officials are often paid off by exporters seeking a cheap and easy means of disposal for their hazardous waste.³³ Several contracts between United States and European companies and African governments contained kickbacks to the officials who approved them.³⁴

Thus, the public health and environmental quality in developing nations are being sacrificed so that companies in developed nations can maintain economic competitiveness or gain an economic advantage over their competitors in both domestic and foreign markets. The problem, as explained, has its basis in the economic underpinnings of the world economy and in the industrial, political and legal development (or lack of development) of the world's nations. It thus seems logical that an adequate solution to the hazardous waste problem must address these issues.

III. EFFORTS TO CONTROL WASTE DISPOSAL

The realization that the export of hazardous wastes to developing nations presents a serious problem is not a new one. Both individual countries and international organizations have made several attempts to control the transfrontier movement of hazardous waste. Unfortunately, these efforts have failed to protect the interests of developing nations because they are neither fully implemented nor adequately enforced. Further, such regulations do not address the reasons companies in industrialized countries export such wastes. Thus, such efforts have failed to provide a "level playing field" in the world of hazardous waste disposal.

A. United States Regulation

In the United States, the Resource Conservation and Recovery Act³⁵ ("RCRA") governs the entire hazardous waste cycle from production to disposal and exists as the main regulatory scheme dealing with

³⁰ Bollag, *Hazardous Waste is a Foreign Matter*, Chemical Week, Dec. 7, 1988, at 45.

³¹ Bollag, *supra* note 29, at C4, col. 2.

³² Rublack, *supra* note 4, at 115.

³³ *International Export Hearing*, *supra* note 14, at 9.

³⁴ Nanda & Bailey, *supra* note 7, at 157.

³⁵ 42 U.S.C. § 6901 *et seq.*

hazardous waste.³⁶ Initially, RCRA contained no provisions which dealt with exporting hazardous waste outside of the United States.³⁷ In November 1984, Congress adopted the Hazardous and Solid Waste Amendments of 1984 ("HSWA").³⁸ Under HSWA, export of hazardous waste is prohibited unless the exporter notifies the EPA Administrator of its intent to export,³⁹ and the receiving country's government consents to accept such waste.⁴⁰

The EPA, in conjunction with the Department of State, is in charge of transmitting notification of the impending export to the receiving country's government within thirty days of receipt of notice of the proposed shipment from the exporter.⁴¹ Notification must include a description of the United States' regulations which apply to the treatment, storage and disposal of the hazardous wastes to be exported.⁴² The EPA also requires notice to be sent to all transit countries, but does not require their consent.⁴³

In addition to notification of intent to export, companies are required to file annual reports with the EPA summarizing the types, quantities, frequency and ultimate destination of all hazardous wastes

³⁶ Comment, *Transboundary Waste Dumping: The United States and Mexico Take a Stand*, 27 NAT. RESOURCES J. 941, 942 (1987) [hereinafter *Transboundary Waste Dumping*].

³⁷ *Id.* at 944.

³⁸ Codified in various sections of 42 U.S.C. Prior to adopting HSWA, the Environmental Protection Agency in 1980, promulgated regulations placing requirements on generators and transporters regarding the export of hazardous wastes. Generators were required to notify the EPA prior to shipment to a foreign country. These regulations, however, did not require reporting quantity, frequency of shipment, manner of transportation or treatment. Comment, *U.S. Controls on International Disposal of Hazardous Waste*, 22 INT'L LAW. 775, 779 (1988) [hereinafter *U.S. Controls*].

³⁹ 42 U.S.C. § 6938 (Supp. V 1988). The notification must include: (1) the primary exporter; and (2) a description of: (i) the waste, (ii) the estimated frequency of export, (iii) the estimated total quantity of such waste, (iv) all points of entry to and departure from each foreign country through which the waste will pass, (v) the means of transportation, (vi) the manner in which the hazardous waste will be treated, stored, or disposed of in the receiving country, (vii) the name and address of the ultimate treatment, storage or disposal facility, and (viii) the name of any transit country through which the hazardous waste will be sent. 40 C.F.R. § 262.53(a)-(b) (1989).

⁴⁰ 42 U.S.C. § 6938(d) (1989). In addition, a copy of the consent must be attached to the manifest which accompanies the waste shipment and the shipment must conform to the terms of the consent. *Id.* In March 1986, the EPA proposed new regulations governing the exportation of hazardous wastes to conform to the statutory language set out in HSWA. 51 Fed. Reg. 8744 (1986); 40 C.F.R. § 262 (1989).

⁴¹ 40 C.F.R. § 262.53(e) (1989). Thus, companies have little control over the process and could face delays depending on how quickly the State Department acts.

⁴² 42 U.S.C. § 6938(d)(4) (1989). The intention is to give the importing company information regarding what would constitute "proper" disposal. It is unclear, however, whether developing countries can weigh the differences between United States disposal methods and those it intends to use. There is no provision which requires the United States to provide technical assistance.

⁴³ 40 C.F.R. § 262.53(e) (1989); See also Response to Comments, 51 Fed. Reg. 28667 (1986).

exported during the previous year.⁴⁴ Every other year, the reports must include a description of the companies' efforts to reduce the volume and toxicity of the waste they generate.⁴⁵

HSWA regulates all hazardous wastes that 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, or disposed of, or otherwise managed."⁴⁶ The EPA promulgated detailed regulations listing waste characteristics and chemicals that are to be treated as hazardous.⁴⁷ HSWA does not require notice and consent for wastes which the United States does not regulate as hazardous wastes. Thus, even if an importing country defines a waste as hazardous or such waste has potential harmful effects if not disposed of properly, such waste is not regulated under HSWA unless the United States defines it as hazardous.⁴⁸

Although RCRA provides a number of liability provisions, these provisions are of little use once the hazardous wastes leave the United States.⁴⁹ Courts generally require a clear legislative intent before a domestic law is deemed to have extraterritorial effect.⁵⁰ RCRA does not manifest such a clear intent.⁵¹ It thus appears that citizens of a foreign country have no standing to invoke RCRA and are thus powerless to make United States corporations accountable under United States law for their hazardous waste disposal activities outside of the United States.⁵²

It was the legislative intent in passing HSWA for the EPA and the United States Customs Service to work together to establish "an effective program to monitor and spot check international shipment of hazardous waste to assure compliance with the requirements of [RCRA]."⁵³ This

⁴⁴ 40 C.F.R. § 262.56 (1989).

⁴⁵ *Id.* at § 262.56(a)(5)(i). However, it appears that no penalties are imposed on companies which fail to reduce the quantity or toxicity of their waste by-products. This provision seems to be the only way in which the United States' regulations encourage waste reduction.

⁴⁶ 42 U.S.C. § 6903(5) (1988).

⁴⁷ Handley, *supra* note 10, at 10174. The characteristics of hazardous waste are ignitability, corrosivity, reactivity, and extra procedure toxicity. 40 C.F.R. §§ 261.3 and 261.20-24 (1989). The types of waste which are hazardous, as well as hazardous constituents are listed at 40 C.F.R. § 261.30-33 (1989).

⁴⁸ Response to Comments, 51 Fed. Reg. 28670 (1986). The EPA felt that a dual system, one for export and one for domestic shipment was unwarranted under the existing law. *Id.*

⁴⁹ Handley, *supra* note 10, at 10174.

⁵⁰ See *Foley Brothers v. Filardo*, 336 U.S. 281 (1949).

⁵¹ Handley, *supra* note 10, at 10174.

⁵² *Id.*

⁵³ S. Rep. No. 98-284, 98th Cong., 1st Sess. 48 (1983).

has proven to be a difficult task.

There is strong evidence that many shipments are never reported to the EPA.⁵⁴ Estimates indicate that waste exports are as much as eight times greater than that reported.⁵⁵ Some exporters who filed annual reports, but failed to give notice and obtain consent, claimed ignorance of the regulations.⁵⁶ Many other exporters did not bother to notify the EPA because "there isn't any enforcement."⁵⁷ United States government agencies that are given the task of regulating shipments of hazardous waste say they lack the money and the personnel to do the job properly.⁵⁸ Unless companies properly file notification and the receiving country's consent is obtained, no assurance exists that the receiving country would agree to accept the wastes being exported to them.⁵⁹ Furthermore, unless the receiving country's government is aware of the hazardous waste imports it will be unable to control potential harm to the public or the environment.

Another criticism of current HSWA regulations is that United States government officials are powerless to stop even the most dangerous waste exports if the host country agrees to accept them.⁶⁰ Unless the receiving country has enacted its own controls, there may be no regulation of disposal once the waste leaves the United States.⁶¹ United States regulations do not require any inspection or follow-up to assure that wastes are properly disposed of abroad.⁶² Further, the EPA provides the importing country neither "conclusions regarding the adequacy of the exporter's proposals, nor a recommendation on whether the proposal should be accepted."⁶³

While the HSWA notice and consent provisions are designed to give the importing countries an opportunity to refuse waste they cannot or do not wish to dispose of, their effectiveness is questionable given the ambig-

⁵⁴ Comparing Customs Service records at several United States ports with the notices sent to the EPA, EPA auditors detected many more shipments than were reported. EPA, Program to Control Exports of Hazardous Waste, Audit Report No. E1D37-05-0456-80855, at 14 (March 1988) [hereinafter EPA Audit].

⁵⁵ Porterfield & Weir, *supra* note 4, at 341.

⁵⁶ EPA Audit, *supra* note 54, at 15.

⁵⁷ Porterfield & Weir, *supra* note 4, at 341.

⁵⁸ *Id.* Hazardous waste exports are not adequately controlled, stemming in part from a lack of attention, resources, and communication between responsible agencies. EPA's Program on Hazardous Waste Exports Needs Improvements, Inspector General Says, 11 Int'l Env't. Rep. (BNA) 434 (Aug. 10, 1988) [hereinafter EPA's Program].

⁵⁹ International Export Hearing, *supra* note 14, at 13.

⁶⁰ Porterfield & Weir, *supra* note 4, at 343.

⁶¹ Handley, *supra* note 10, at 10172 n.22.

⁶² *Id.*

⁶³ International Export Hearing, *supra* note 14, at 2.

uous regulations which govern the planned disposal and the difficulty EPA has in enforcing its provisions.⁶⁴ Numerous reforms are necessary before HSWA begins to fulfill its legislative purpose.

B. International Regulations

1. *European Community Directive on the Supervision and Control Within the European Community of the Transfrontier Shipment of Hazardous Waste.*

On December 6, 1984, The European Community ("EC") Council adopted the Directive on the Supervision and Control Within the European Community of the Transfrontier Shipment of Hazardous Wastes ("EC Directive").⁶⁵ The EC Directive establishes a notice and authorization system for the transfrontier movement of hazardous waste involving EC member states.⁶⁶

The EC Directive defines hazardous waste as any waste containing or contaminated by certain substances listed in the EC Directive, which occur in such quantities or concentrations as to constitute a risk to human health or the environment.⁶⁷ Unlike United States law,⁶⁸ the EC Directive requires exporters to obtain consent whenever the importing or transit country defines the waste as hazardous.⁶⁹

Under the EC Directive, notice must contain information on the source and composition of the waste, the provisions made for routes and

⁶⁴ Handley, *supra* note 10, at 10175.

⁶⁵ *Directive on the Supervision and Control Within the European Community of the Transfrontier Shipment of Hazardous Waste*, (84/631/EEC), 27 O.J. EUR. COMM. (No. L 326) 31 (1984) [hereinafter *EC Directive*].

⁶⁶ Handley, *supra* note 10, at 10175. The EC member states include; Belgium, Denmark, France, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom and West Germany. The EC has the power to legislate through directives which require member states to assure that the objectives and procedures defined in the directives are implemented and fully incorporated into their national laws. *Id.* at 10176. Member states are bound to take all necessary steps to assure compliance with the directives. *Id.* at 10175, n.71. Uniformity of laws, however, is not required when the directives are not specific. *Id.* at 10176. The European Court of Justice has the authority to enforce measures enacted by the council and may void legislation of member states which conflict with EC laws. *Id.* at 10176 n.102.

⁶⁷ *EC Directive*, *supra* note 65, at art 2(1)(a). The EC Directive adopted this definition from the Directive on Toxic and Dangerous Waste. 21 O.J. Eur. Comm. (No. L 84) at art. 2(1)(a) (1978) (Directive 78/319/EEC). Under this definition there is a lack of uniformity among EC member states because each state is left to define the specific quantities or concentrations that constitute such risks. *Id.* With no uniformity it is difficult for an exporting company to determine whether or not it must obtain approval before shipment.

⁶⁸ The United States does not take into account the definitions of other countries in determining which wastes are hazardous. See *supra* text accompanying notes 46-48.

⁶⁹ Handley, *supra* note 10, at 10177.

insurance against damage to third parties,⁷⁰ the measures to be taken to assure safe transit and compliance with any conditions established by member states involved, and evidence of a contractual agreement with the party to whom the waste is being shipped for disposal.⁷¹ The consignee should have adequate technical capacity for disposal of the waste without causing danger to human health or the environment and must have a permit for storage, treatment or disposal.⁷² A transfrontier shipment may not occur before a member acknowledges receipt of the notification.⁷³

The EC Directive also requires prior notice to nonmember states to whom waste is exported.⁷⁴ Further, a 1986 amendment requires the consent of any nonmember state to whom or through which hazardous waste is exported.⁷⁵ Countries may object to such shipments "on the basis of laws and regulations relating to environmental protection, safety and public policy or health protection"⁷⁶

While the EC Directive appears to be a step toward "leveling the playing field" in the area of hazardous waste transport regulations, in reality this has not occurred. Many countries have "blatantly ignored" the EC Directive on the export of hazardous waste.⁷⁷ Even countries which enacted legislation have failed to provide adequate enforcement provisions.⁷⁸ Accordingly, because member states have not fully implemented the EC Directive, it has had no practical effect.⁷⁹

⁷⁰ The Directive does not require that exporters have insurance, only that information as to insurance be provided. *EC Directive*, *supra* note 65, at art 3(3).

⁷¹ *Id.*

⁷² *Id.* The EC Directive thus appears to be more concerned with what happens to hazardous wastes once they leave the exporting country than do the United States regulation.

⁷³ *Id.* at art. 4(1).

⁷⁴ *Id.* at art. 3(4). Such notice is to be the same as that provided to member states. Handley, *supra* note 10, at 10175 n.82.

⁷⁵ Council Directive Amending Directive 84/631/EEC on the Supervision and Control Within the European Community of the Transfrontier Shipment of Hazardous Waste (86/279/EEC) 29 O.J. EUR. COMM. (No. L 181) 13 at art. 3(4) (1986).

⁷⁶ *EC Directive*, *supra* note 65, at art. 4(3).

⁷⁷ *EC Rules on Waste Exports Often Ignored; Ministries Disagree on Tightening Standards*, 11 Int'l Env't. Rep. (BNA) 375 (July 13, 1988). In fact, only Belgium, Greece, Denmark and Luxembourg have implemented the Directive. *Greenpeace, Prompted by Vulcans II, Seeks Waste Shipment Directive Enforcement*, 11 Int'l Env't. Rep. (BNA) 526, 527 (Oct. 1988).

⁷⁸ Handley, *supra* note 10, at 10177.

⁷⁹ *Id.*

2. *Organization for Economic Cooperation and Development Decision and Recommendation on Transfrontier Movements of Hazardous Waste.*

The Organization for Economic Cooperation and Development ("OECD")⁸⁰ Decision and Recommendation on Transfrontier Movements of Hazardous Waste ("OECD Decision")⁸¹ constituted the first legally binding international instrument aimed at improving the control of transfrontier movements of hazardous waste.⁸²

A 1986 OECD Export Decision⁸³ requires member countries to ensure that their officials have the authority to prohibit exports in appropriate instances, apply no less strict controls on nonmember countries than on member countries, prohibit movements of hazardous wastes to a nonmember country without consent and prior notification,⁸⁴ and prohibit movements to nonmember countries unless the wastes are directed to an adequate disposal facility in that country.⁸⁵

The OECD Decision defines hazardous waste broadly as "any waste . . . considered as hazardous or legally defined as hazardous in the country where it is situated or through or to which it is conveyed"⁸⁶ Thus, the OECD definition of hazardous waste requires exporters to obtain consent whenever the importing or transit country defines the waste as hazardous.⁸⁷

Although the OECD Decision and Recommendation does not deal directly with the issue of liability, it recommends that countries attempt to ensure that "the transport and disposal of its waste be undertaken in

⁸⁰ The OECD members include; Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

⁸¹ *Decision and Recommendation on Transfrontier Movements of Hazardous Wastes*, OECD Document (83) 180 (final) reproduced at 23 I.L.M. 214 (1984) [hereinafter *Decision and Recommendation*]. The OECD Decision was adopted February 1, 1984.

⁸² Rublack, *supra* note 4, at 120.

⁸³ *Council Decision-Recommendation on Exports of Hazardous Wastes From the OECD Area*, OECD Doc. (86) 64 (final, reproduced at 25 I.L.M. 1010 (1986) [hereinafter *Council Decision*].

⁸⁴ Companies must provide the exporting, importing and transit countries with adequate and timely information specifying the origin, nature, composition and quantities of the waste intended for export, the conditions of carriage, the nature of the environmental risks involved, the type of disposal and the identity of all entities concerned. *Decision and Recommendation*, *supra* note 81, at 216.

⁸⁵ *Council Decision*, *supra* note 83, at 1011. This final provision makes transfrontier shipments to developing countries extremely unlikely.

⁸⁶ *Decision and Recommendation*, *supra* note 81, at 217.

⁸⁷ Since the United States does not utilize the definitions of other countries in determining whether its provisions apply, this definitional problem has become a major point of contention and has limited further agreement among OECD countries. Handley, *supra* note 10, at 10178.

accordance with the laws and regulations applicable in the countries concerned.”⁸⁸ Often the importing country does not have laws or regulations governing hazardous waste disposal, thereby rendering this provision meaningless.

The OECD Decision binds member states, but the recommendations for carrying out the decision do not.⁸⁹ No time limit was established for the implementation of the OECD Decision and no provision was made for any penalty in the event such period is excessive.⁹⁰ Many OECD member countries will have to pass new legislation or introduce new regulations to enable their authorities to implement the OECD Decision and to force certain individuals to provide the authorities with specific information.⁹¹ Thus, the OECD Decision, like the EC Directive, is unlikely to become an effective tool in the regulation of transfrontier shipments of hazardous waste.

Clearly, international legislation goes further in creating a “level playing field” than do individual countries’ efforts to regulate transfrontier hazardous waste shipments. When the same regulations apply to companies in several countries, companies in any one country do not face tougher disposal laws than their competitors abroad and those companies have less incentive to export their waste. Additionally, if the country to which a company intends to export its hazardous waste adopts disposal laws similar to the exporting country’s disposal laws, much of the incentive to export would be lost. However, unimplemented or unenforced international legislation proves as good as no legislation. Further, as long as some countries continue to carry lax environmental legislation, companies will find ways to dispose of their hazardous waste in those countries.

IV. UNITED NATIONS ENVIRONMENT PROGRAMME’S BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL

The United Nations is the largest international organization that could regulate the transfrontier movement of hazardous waste.⁹² In 1987

⁸⁸ *Decision and Recommendation*, *supra* note 81, at General Principles, para. 3(a) at 216.

⁸⁹ Handley, *supra* note 10, at 10178.

⁹⁰ Smets, *Transfrontier Movements of Hazardous Wastes: An Examination of the Council Decisions and Recommendations*, 14 ENV’T L POL’Y & L. 16 (1985).

⁹¹ *Id.*

⁹² Comment, *Issues and Policy Considerations Regarding Hazardous Waste Exports*, 11 Hous. J. INT’L L. 373, 383 (1989) [hereinafter *Issues and Policy Considerations*]. Article 55 of the United Nations Charter requires member nations to promote “solutions of international economic, social,

the United Nations Environment Programme ("UNEP") adopted the final Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes.⁹³ The Cairo Guidelines cover the management of hazardous wastes from "cradle to grave."⁹⁴ Such guidelines, however, are not legally binding. Because these guidelines do not legally bind member countries and in response to growing demands from developing countries following recent publicity surrounding hazardous waste exports,⁹⁵ the UNEP sponsored a working group of legal and technical experts to prepare a global convention on the control of the trans-frontier movements of hazardous wastes.⁹⁶

The Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal⁹⁷ ("UNEP Convention") was signed, after eighteen months of negotiations, by thirty-five of 116 countries participating in the March 20-22, 1989 negotiations in Basel, Switzerland.⁹⁸ Developing countries comprised at least half of the signatories.⁹⁹ Due to the number of countries involved in the UNEP Convention it has the potential of becoming the most binding international provision regulating the transfrontier movement of hazardous waste. It is also the most restrictive regulation to date. The UNEP Convention will enter into effect as soon as it is ratified by twenty countries.¹⁰⁰ While forty-six countries have signed the UNEP Convention, including the United States which signed on March 21, 1990,¹⁰¹ only

health, and related problems." U.N. Charter, art. 55 at para. 1. The United Nations Environment Programme ("UNEP") was created by the 1972 Stockholm Conference. Sohn, *The Stockholm Declaration on the Human Environment*, 14 HARV INT'L L.J. 423 (1973). Principle 21 of the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment states that "States have. . .the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." *Report of the United Nations Conference on the Human Environment*, U.N. Doc. A/Conf. 48/14, at 2-65, and Corr. I (1972). Together, Article 55 and Principle 21 provide the mandate for the UNEP to promote an international agreement on the transfrontier movement of hazardous waste. *Issues and Policy Considerations*, at 384.

⁹³ U.N. Doc. UNEP/GC.14/17, Annex II (1987).

⁹⁴ Rublack, *supra* note 4, at 118.

⁹⁵ See *supra* notes 6-9 and accompanying text.

⁹⁶ U.N. Doc. UNEP/GC.14/30, (1987).

⁹⁷ *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, UNEP Doc. I.G.80/3 reproduced at 28 I.L.M. 657 (1989) [hereinafter *UNEP Convention*].

⁹⁸ *Legislation on Global Waste Control to be Proposed by Year's End to Congress*, The Bureau of National Affairs, Inc., Daily Report for Executives, Aug. 22, 1989, DER No. 161.

⁹⁹ *Id.* The UNEP is the only international organization involved in regulating the transfrontier flow of hazardous waste in which developing countries participated.

¹⁰⁰ *United States Signs Convention to Prohibit Certain Waste Exports*, The Bureau of National Affairs, Daily Report for Executives, March 22, 1990, DER No. 56.

¹⁰¹ *Id.*

three nations have ratified the convention.¹⁰²

A. Negotiation Problems

Reaching a consensus on the UNEP Convention proved to be a difficult task. Several issues threatened to halt the convening of the scheduled March, 1989 conference. The lack of agreement often resulted from differing priorities of industrialized and developing nations.

One of the most difficult issues to resolve was how to define "hazardous waste." Many nations do not draw a distinction between wastes such as ordinary garbage, incinerator ash and hazardous waste.¹⁰³ Other nations have highly detailed lists of wastes which they consider hazardous.¹⁰⁴ In addition, some countries such as the United States do not want different regulations governing foreign and domestic disposal.¹⁰⁵ The more divergence between international regulations and national laws, the more difficult it becomes for companies to comply with such regulations. This divergence also makes it more difficult for nations to ratify the UNEP Convention because it entails changing their domestic legislation in order to comply with the Convention's provisions.

Another debate arose over the perceived need for an international secretariat with powers to police compliance with the UNEP Convention. It was understood that developing countries did not want an international group of inspectors checking their landfill operations.¹⁰⁶ However, widespread support existed for the creation of a secretariat to coordinate international assistance for developing countries.¹⁰⁷ The secretariat's duties would include transfers of technology, organizing international intervention in case of an accident, and monitoring worldwide waste movements in order to prevent illegal shipments.¹⁰⁸ In addition, many developing countries supported a provision requiring that the secretariat be notified before a waste shipment takes place.¹⁰⁹ The United States, however, objected to giving the secretariat such responsibility be-

¹⁰² *Planet-Saving Report Card*, Time, April 23, 1990, at 83.

¹⁰³ *International Export Hearing*, *supra* note 14, at 1.

¹⁰⁴ Because most waste is exported from countries having a more inclusive definition of hazardous waste it would appear that using the exporter's legal definition of hazardous waste would adequately regulate the types of wastes being shipped. Rublack, *supra* note 4, at 122. This is not the case, however, when the exporting country excludes materials from its hazardous waste definition which the importing country cannot adequately dispose of given its waste control system. *Id.*

¹⁰⁵ See *supra* note 48 and accompanying text.

¹⁰⁶ *Waste Shipment Incidents Spur Interest in UNEP Agreement to Deal With Problem*, 11 Int'l Env't. Rep. (BNA) 471 (Sept. 1988) [hereinafter *Waste Shipment Incidents*].

¹⁰⁷ Bollag, *supra* note 29, at C4, col. 4-5.

¹⁰⁸ *Id.* at C4, col. 5.

¹⁰⁹ *Id.*

cause of the enormous amount of paperwork which it felt would create an inefficient use of the secretariat's time.¹¹⁰

One of the main problems concerning developing countries was their lack of expertise in waste management techniques.¹¹¹ It was thus generally believed that they would not agree to the signature of the UNEP convention without some provision for technology transfer to aid them in the development of this field.¹¹² Difficulty arose over the appropriate type and extent of any accompanying technology transfers.

The extent of prior notification required for transit countries was another area of sharp contention. Developing countries wanted the right to refuse transit of hazardous wastes across their territory unless they give prior informed consent.¹¹³ Developed nations did not agree with such a provision because they feared that developing countries lacked the infrastructure to handle the necessary paperwork, thereby complicating the possibility of such shipments going through.¹¹⁴ Developed nations wanted a flexible framework enabling movement to take place after due notification was given.¹¹⁵ Developing countries, however, wanted the Convention set up so that if the transit country did not respond within the prescribed time limit, the exporter would understand that the transit country objected to the shipment.¹¹⁶

B. The Final Convention

1. General Structure and Scope

Dr. Mostafa K. Tolba of Egypt, the Executive Director of the UNEP, stated that the aim of the UNEP Convention is "a major reduction in the generation of hazardous wastes."¹¹⁷ This goal is to be met by making transfrontier movement "so costly and difficult that industry will find it more profitable to cut down on waste production and re-use [and]

¹¹⁰ *Id.* at C4, col. 5-6.

¹¹¹ *UNEP Transboundary Transport Draft Bugged Down Over Prior-Consent Issue*, 11 Int'l Env't. Rep. (BNA) 660 (Dec. 1988) [hereinafter *UNEP Transboundary Transport Draft*].

¹¹² *Id.*

¹¹³ *Id.* In other words, transit countries wanted the same right to refuse shipment as importing countries would have.

¹¹⁴ *Id.*

¹¹⁵ *Id.* The United States stated that a transit country should have a certain period of time, say fifteen days, to object to a shipment passing through it. If nothing is heard within this time the shipment could go ahead, but if shipment were refused then the exporting country would have to find another route. *Developed, Developing Countries Disagree Over Elements of Waste Shipment Agreement*, 11 Int'l Env't. Rep. (BNA) 376 (July 13, 1988) [hereinafter *Developed, Developing Countries Disagree*].

¹¹⁶ *Id.*

¹¹⁷ Bollag, *supra* note 30, at 45.

recycle what waste they produce.”¹¹⁸ The UNEP Convention assumes that the reduction of hazardous waste generation to a minimum in terms of quantity and/or hazard potential is the most effective means of protecting human health and the environment.¹¹⁹ Although the UNEP Convention does not ban the transfrontier movement of hazardous wastes as many would like, it does recognize the increasing desire for the prohibition on transfrontier movement of such waste, especially to developing countries.¹²⁰

In attempting to meet these goals, the UNEP Convention requires that parties take all practical steps to ensure that the transfrontier movement of hazardous wastes “is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movements”¹²¹ Specifically, the UNEP Convention requires parties to “[e]nsure that the transboundary movement of hazardous wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes”¹²² and that each party “[n]ot allow the export of hazardous wastes . . . if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner.”¹²³

2. *Discussion and Analysis of Specific Provisions*

a. Types of Shipment and Waste Covered

The UNEP Convention applies to all methods of shipping hazardous waste; road, rail, sea, air and inland waters.¹²⁴ The scope of the UNEP Convention applies to a specific list of controlled waste categories¹²⁵ and to hazardous wastes considered or defined as hazardous by the domestic legislation of the party of import, export or transit.¹²⁶ Each party to the UNEP Convention is to inform the Secretariat, within six

¹¹⁸ *Legislation on Global Waste Control to be Proposed by Year's End to Congress*, *supra* note 98, at DER No 161.

¹¹⁹ *UNEP Convention*, *supra* note 97, at Preamble. This provision recognizes that a reduction in quantity does not always represent a reduction in hazard potential.

¹²⁰ *Id.*

¹²¹ *Id.* at art. 4(2)(d).

¹²² *Id.*

¹²³ *Id.* at art. 4(2)(e).

¹²⁴ *Id.* at Annex V A(11).

¹²⁵ *Id.* at art. 1(1)(a). These categories include certain waste streams and wastes that have certain constituents, unless these wastes do not possess any of the characteristics contained in Annex III. *See id.* at Annex I and III. In addition to hazardous wastes, the UNEP Convention regulates “other wastes” *Id.* at art. 1(2). Other wastes include wastes collected from households and residues arising from incineration of household wastes. *See id.* at Annex II.

¹²⁶ *Id.* at art. 1(1)(b). Thus, the convention's definition of hazardous waste is fairly inclusive and covers much more than any of the prior international regulations.

months of becoming a party, of the wastes considered or defined as hazardous under its national legislation,¹²⁷ and is to inform the Secretariat of any significant changes to the information it has provided.¹²⁸ Each party thus has the discretion to define hazardous waste as it desires. The regulated waste, however, must be "legally" hazardous in that state. Countries, therefore, may not declare wastes "hazardous" on a case by case basis.

This definition of hazardous waste addresses situations where the exporting country does not define the waste as hazardous, although the waste may be harmful if not disposed of properly. If a receiving country legally declares a waste hazardous it could prohibit the importation of the waste under the UNEP Convention, even though the exporting country does not define such waste as hazardous. Thus, the UNEP Convention does not require a uniform definition of hazardous waste. As long as either the exporting, importing or transit party considers the waste hazardous, the waste is a "hazardous waste" for the entire purpose of the UNEP Convention.¹²⁹ This resolves the definitional problem, but makes the transfrontier movement of hazardous wastes more complex.¹³⁰

b. Notification Provisions

The UNEP Convention requires the state of export to notify, or require the generator¹³¹ or exporter¹³² to notify, in writing, the competent authority of the states concerned (including states of export, import and transit) of any proposed transboundary movement of hazardous wastes or other wastes.¹³³ The state of export may thus choose to notify the

¹²⁷ *Id.* at art. 3(1).

¹²⁸ *Id.* at art. 3(2).

¹²⁹ *Id.* at art. 1(1).

¹³⁰ Rather than having a single definition of hazardous waste, there could now be as many different definitions as there are parties to the Convention, each which must be checked with regard to any countries of import or transit whenever a party intends to export hazardous waste.

¹³¹ "'Generator' means any person whose activity produces hazardous wastes or other wastes or, if that person is not known, the person who is in possession and/or control of those wastes." *Id.* at art. 2(18).

¹³² "'Exporter' means any person under the jurisdiction of the State of export who arranges for hazardous wastes or other wastes to be exported." *Id.* at art. 2(15).

¹³³ *Id.* at art. 6(1). The notification is to include the following detailed information: (1) reason for waste export; (2) exporter of the waste; (3) generator(s) of the waste and site of generation; (4) disposer of the waste and actual site of disposal; (5) intended carrier(s) of the waste if known; (6) country of export of the waste; (7) expected countries of transit; (8) country of import of the waste; (9) general or single notification; (10) projected date(s) of shipment(s) and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit); (11) means of transport envisaged (road, rail, sea, air, inland waters); (12) information relating to insurance; (13) designation and physical description of the waste and its composition and information on any special handling requirements including emergency provisions in case of accidents;

competent authority of the states concerned or may allow the waste generator or exporter, most likely the company who seeks to export the waste, to deal directly with the states of import and transit.

If individual companies are left to perform the notification, they will retain more control and will be less likely to face bureaucratic delays. However, it appears that the exporter would have to determine whether the waste it seeks to export falls within the destination or transit state's hazardous waste definition. This could prove extremely difficult for private companies to track, especially when there are several states of transit.¹³⁴ If the government retains control, it will be better able to regulate illegal exports and encourage waste reduction measures. Further, the government will be able to insure that all notice requirements are being met.

General notification may be provided for "wastes having the same physical and chemical characteristics" that are shipped regularly to the same disposer through the same customs offices of the states of export, import and transit.¹³⁵

While the notification provisions require delivery of a fairly comprehensive set of information, they allow each country to determine the best method of implementation. Thus, as in the definition of hazardous waste, the Convention's notification provisions recognize that one way of doing things is not always best for all countries concerned.

c. Response to Notification

Parties may decide not to consent, partially or totally, to the import of hazardous wastes for disposal and may also decide to limit or ban the export of hazardous wastes or other wastes.¹³⁶ Parties must notify the

(14) type of packaging envisaged (eg. bulk, drummed, tanker); (15) estimated quantity in weight/volume; (16) process by which waste is generated; (17) method of disposal as per Annex III; (18) declaration by the generator and exporter that the information is correct; (19) information transmitted to the exporter or generator from the disposer of the waste upon which the latter has based his assessment that there was no reason to believe that the wastes will not be managed in an environmentally sound manner in accordance with the laws and regulations of the country of import; and (20) information concerning the contract between the exporter and disposer. *Id.* at Annex V A.

¹³⁴ The Secretariat is required to inform all parties of the information received regarding definitions of hazardous waste under the national legislation of each country, thereby creating a readily available list for each party to consult. *Id.* at art. 3(3). Although parties are required to make the information transmitted to them "available" to their exporters, many private companies may not be aware of such information. In addition, there is no requirement that the parties insure that the information on such lists be understandable to such companies. *Id.*

¹³⁵ *Id.* at art. 6(6).

¹³⁶ *Id.* at art. 13(2)(c)(d). Thus, parties who would choose to ban all transfrontier movements of hazardous wastes may choose to prohibit all exports and imports of hazardous waste.

Secretariat as to their intentions to be included in such categories.¹³⁷

The state of import must "respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information be."¹³⁸ The state of export may not allow the generator or exporter¹³⁹ to commence shipment until it has received written confirmation that the importing state has consented to the shipment and has confirmed the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question.¹⁴⁰ Parties may not export hazardous waste to parties which have generally prohibited import or who do not consent in writing to the specific import.¹⁴¹

The state of transit must respond, within sixty days, "consenting to the movement with or without conditions, denying permission for the movement, or requiring additional information."¹⁴² The state of export may not allow the transfrontier movement to commence until it has received the written consent of the state or states of transit.¹⁴³ A country may decide not to require prior written consent to transboundary movement through its boundaries.¹⁴⁴ In this case, if the state of transit fails to notify the exporting country within sixty days, the state of export may allow the export to proceed through the state of transit.¹⁴⁵ A country would choose this option if it does not wish to be burdened by the paperwork that goes along with the transit notification process.

d. Recordkeeping and Reporting Requirements.

The UNEP Convention imposes annual reporting requirements on parties. By the end of each calendar year parties must send a report, of the previous year, containing information on the competent authorities that have been designated, on the transfrontier movements of hazardous wastes or other wastes in which they have been involved, and on the measures adopted by them in implementation of the Convention.¹⁴⁶ In

¹³⁷ *Id.* The Secretariat will then provide notice to all parties.

¹³⁸ *Id.* at art. 6(2).

¹³⁹ This distinction recognizes that often the generator contracts with a third party for the actual exportation of its hazardous waste. There appears to be a growing "shadow industry" that exports waste from the United States, particularly to developing countries. Porterfield & Weir, *supra* note 4, at 341.

¹⁴⁰ *UNEP Convention*, *supra* note 97, at art. 6(3)(a), (b).

¹⁴¹ *Id.* at art. 4(1)(b), art. 6(3)(a).

¹⁴² *Id.* at art. 6(4).

¹⁴³ *Id.* at art. 6(4).

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* at art. 13(3)(a)-(c). The report is to be transmitted, through the Secretariat, to the Confer-

addition, parties must report compiled statistics on the effects on human health and the environment of the generation, transportation and disposal of hazardous wastes, on bilateral, multilateral and regional agreements entered into, on accidents occurring during transfrontier movement and disposal and the measures undertaken to deal with them, on disposal options operated within the area of their national jurisdiction, and on measures undertaken for development of technologies for the reduction and/or elimination of hazardous waste production.¹⁴⁷ This provision can, and most likely will, result in the creation and retention of massive amounts of paperwork, depending on the number of transfrontier shipments (notice and acknowledgement must be provided for every shipment except those that qualify for "general notification") and the number of countries through which the shipments must pass.

e. Insurance

The notification requirements impose on the exporter a duty to provide information on relevant insurance requirements and how they are met by the exporter, carrier and disposer.¹⁴⁸ Although the UNEP Convention does not require insurance on shipments of hazardous waste, it does seem to provide a mechanism whereby individual parties may require certain forms of insurance before any shipments occur. Thus, it appears that any transfrontier movement of hazardous wastes should be insured or other guarantees provided as required by the state of import or any state of transit which is a party. Where a party has a national law or regulation requiring insurance, failure to insure the shipment could result in a complete ban on the shipment.

f. Liability

The UNEP Convention avoids addressing the difficult issue of liability by stating that parties shall adopt, as soon as practicable, rules and procedures in the "field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes."¹⁴⁹ While such an open ended provision allows for abuses in the system, it is unlikely that the Convention would have passed had this issue not been put off for later discussion. The liability issue, however,

ence of the Parties. *Id.* at art 13(3). The Conference of the Parties is established under Article 15 and is to be convened by the Executive Director of the UNEP not later than one year after the UNEP Convention enters into force and thereafter at regular intervals. *Id.* at art. 15(1).

¹⁴⁷ *Id.* at art. 13(3)(d)-(h).

¹⁴⁸ *Id.* at Annex V A (12).

¹⁴⁹ *Id.* at art. 12.

must be confronted before the Convention will be able to meet its full potential.

g. Transfer of Technology

Under the UNEP Convention parties are required to "cooperate with each other in order to improve and achieve environmentally sound management of hazardous waste."¹⁵⁰ In meeting this goal, the Convention requires parties to make information available which will lead to the harmonization of technical standards and practices.¹⁵¹ In addition, parties are required to cooperate in the transfer of technology and management systems relating to the environmentally sound management of hazardous wastes, and in developing the technical capacity among those parties needing or requesting such technical assistance.¹⁵² Parties are specifically required to "[t]ake into account the needs of developing countries" in cooperating to promote the development of sound management policies, the adoption of new low-waste technologies and greater public awareness.¹⁵³ Unfortunately, the Convention leaves the means by which to effectuate the goal of technology transfer to each country. The likely result will be an insufficient level of technical assistance provided by developed countries.

h. General Obligations

Article 4, the general obligations provision, imposes duties on parties with respect to the production, management and movement of hazardous wastes, including the duty to cooperate. This article sets the UNEP Convention apart from other international acts and makes the Convention one that will severely restrict the transfrontier movement of hazardous waste.

Under Article 4, each party is required to take measures to reduce hazardous waste generation, to ensure the availability of adequate disposal facilities, and to refuse exportation of hazardous wastes if the party has reason to believe that the wastes in question will not be managed in an environmentally sound manner.¹⁵⁴ In addition, information regarding proposed transboundary movement is required to clearly state the effects

¹⁵⁰ *Id.* at art. 10(1).

¹⁵¹ *Id.* at art. 10(2)(a).

¹⁵² *Id.* at art. 10(2)(d).

¹⁵³ *Id.* at art. 10(4).

¹⁵⁴ *Id.* at art. 4(2)(a),(b),(e). Under the United States' system, federal officials are powerless to stop even a dangerous export if the host country agrees to accept the shipment. Thus the United States would be required to change its law in order to adopt the Convention (i.e. amend RCRA). *EPA's Program*, *supra* note 58, at 435.

the proposed movement may have on human health and the environment.¹⁵⁵ Further, each party is required to prevent import if it has reason to believe the wastes in question will not be managed in an environmentally sound manner.¹⁵⁶

Parties may not permit hazardous wastes or other wastes to be exported to a non-party or to be imported from a non-party.¹⁵⁷ This provision, in effect, poses a "limited ban" wherein no signatory of the UNEP Convention may export or import hazardous waste from or to a country which has not ratified the Convention.¹⁵⁸ However, parties may enter into "bilateral, multilateral, or regional agreements or arrangements regarding transfrontier movement of hazardous waste . . . with parties or non-parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes as required by the UNEP Convention."¹⁵⁹

Additionally, parties are required to "prohibit all persons under its national jurisdiction from transporting or disposing of hazardous wastes . . . unless such persons are authorized to perform such operations."¹⁶⁰ This provision has been taken to mean that companies need a special permit from their government before they engage in waste transfer or disposal. Such a governmental authorization system could provide a check on companies who are left to deal directly with importing and transit countries. Although the UNEP Convention does not expressly prohibit hazardous waste shipments that would not be disposed of at a permitted facility, its language and structure imply this interpretation. The UNEP Convention provides that when notifying the importing state's governmental authorities of the impending shipment, the exporter must provide information on the existence of a contractual agreement with the waste disposer.¹⁶¹

Each party is also required to ensure that its exported hazardous wastes are managed in an environmentally sound manner in the states of import or transit.¹⁶² This provision seems to require not only the state of export, but also the states of import and transit to take responsibility for the hazardous waste during its transit. However, the exporting state can-

¹⁵⁵ *UNEP Convention*, *supra* note 97, at art. 4(2)(f),(g).

¹⁵⁶ *Id.* at art. 4(5).

¹⁵⁷ *Id.*

¹⁵⁸ *UNEP Transboundary Transport Draft*, *supra* note 111, at 661.

¹⁵⁹ *UNEP Convention*, *supra* note 97, at art. 11(1). Such arrangements may not stipulate provisions which are less environmentally sound than the provisions in the UNEP Convention.

¹⁶⁰ *Id.* at art. 4(7)(a).

¹⁶¹ *Id.* at Annex V A(21).

¹⁶² *Id.* at art. 4(8).

not shift the burden of requiring environmentally sound hazardous waste management onto the state of import or transit.¹⁶³ It is thus unclear who should be held liable if the hazardous waste is not managed in an environmentally sound manner. It appears, however, that because the states of export, import, and transit have a responsibility, all such states are potentially liable.

In addition to the restrictions previously laid out, Article 4 further restricts transfrontier movements of hazardous waste by requiring that shipment only be allowed if the state of export does not have the technical capacity and necessary facilities or suitable disposal sites to dispose of the wastes in an environmentally sound and efficient manner, the wastes are required as a raw material for recycling or recovery industries in the state of import, or the transboundary movement is in accordance with other criteria to be decided by the parties, provided those criteria do not differ from the objectives of the UNEP Convention.¹⁶⁴ Given these restrictions it is unlikely that much of the hazardous waste movement that takes place today is acceptable under the UNEP Convention.

This does not mean that transfrontier movements of hazardous waste will not occur under the Convention. Obviously the UNEP Convention permits hazardous wastes to be imported and exported, even to developing countries under certain conditions. However, if parties comply with the Convention's provisions it is unlikely that at this time wastes will be exported to developing countries at present because such countries are not able to manage such wastes in an environmentally sound manner.

V. ANALYSIS OF UNEP CONVENTION AND ITS SURROUNDING DEBATE

A. Criticism of the UNEP Convention

The main critics of the UNEP Convention are those who want to see a complete ban on all transfrontier movements of hazardous waste.¹⁶⁵ Environmentalists around the world have argued that the UNEP Convention, rather than prohibiting the transboundary movement of hazardous waste, facilitates waste transfers to developing countries.¹⁶⁶ Even in

¹⁶³ *Id.* at art. 4(10).

¹⁶⁴ *Id.* at art. 4(9)(a)-(c).

¹⁶⁵ Several environmental groups including Greenpeace and the Natural Resources Defense Council have called for a ban on hazardous waste exports. *Greenpeace Calls for World Ban*, *supra* note 7, at 433.

¹⁶⁶ *Japan to Start Research on Transboundary Movement of Waste*, Kyodo News Service, Oct. 6, 1989.

the United States there has been movement toward such a ban.¹⁶⁷

Those pushing for a ban argue that it would promote waste reduction and recycling of hazardous wastes¹⁶⁸ and that developing countries lack the economic, political and technological infrastructures to adequately deal with such wastes.¹⁶⁹ They argue further that under a ban foreign policy liabilities would not present a serious risk.¹⁷⁰ In addition, the high cost of implementation, bureaucratic expansion and complex regulatory schemes necessary under the UNEP Convention would all be avoided under a ban.¹⁷¹ Although those arguing for a ban admit that prohibiting all transfrontier movements of hazardous waste would put pressure on waste generators to economically dispose of their waste in the short run, they argue that governments could alleviate some of this burden by providing economic incentives for implementing waste reduction technologies.¹⁷²

Some argue that the UNEP Convention in effect imposes a ban on the transfrontier movement of hazardous waste by providing that a party cannot export hazardous waste to any country that does not want the importation or does not have the ability to manage the waste properly.¹⁷³ The argument reasons that such a provision imposes a ban unless a bilateral agreement exists with another country, such as the one between the United States and Canada.¹⁷⁴ There are, however, distinct differences between shipments allowed under the UNEP Convention and those allowed under bilateral agreements.

Under the UNEP Convention each shipment requires what could be deemed a "mini bilateral agreement" that only applies for that one shipment. For example, just because Haiti accepts one shipment of hazard-

¹⁶⁷ In 1988 legislation was introduced in the United States that would ban all waste exportation except where bilateral agreements already exist. H.R. 5018, 100th Cong., 2d Sess. (1988). Efforts to pass such legislation have proven unsuccessful to date.

¹⁶⁸ *Issues and Policy Considerations*, *supra* note 92, at 391. This argument posits that by forcing companies in developed countries to meet the stricter and costlier environmental regulations of their countries, those companies will find it increasingly more attractive to reduce the amount of waste they generate.

¹⁶⁹ This argument posits that since under a ban no developing nation would be receiving hazardous wastes, the lack of economic, political or technological infrastructures presents no problem.

¹⁷⁰ *Issues and Policy Considerations*, *supra* note 92, at 391. Thus, countries like the United States would not be projecting a negative image by allowing its companies to endanger the lives of citizens in developing countries in order to save a few dollars.

¹⁷¹ *Id.*

¹⁷² Note, *Legal Incentives for Reduction, Reuse, and Recycling: A New Approach to Hazardous Waste Management*, 95 YALE L.J. 810 (1986).

¹⁷³ *U.S. Would Tie Waste Exports to Bilateral Agreements*, *Thomas Says*, 11 Int'l Env't. Rep. (BNA) 472 (Sept. 1988).

¹⁷⁴ *Id.*

ous waste from the United States does not mean that it will accept another, or that if it does accept a second shipment, that the second agreement will be substantially similar to the first agreement. While a bilateral agreement seems to infer that the countries involved make up the rules for the shipment, nothing in the UNEP Convention would lead one to believe that the parties could create their own rules for shipment. In fact, the UNEP Convention leaves little leeway for countries to diverge from its requirements.¹⁷⁵

Others argue that the Convention is a "*de facto*" prohibition on the export of hazardous wastes from industrialized to developing countries.¹⁷⁶ Since the exporting country must assure that wastes will be disposed of in a proper manner, and since it is highly unlikely, at this time, that developing countries have the means to properly dispose of such wastes, it is unlikely that any such agreement between developing and industrialized nations could meet this requirement. As explained below, it is the distinction between a "*de facto*" ban and a complete ban that makes the UNEP Convention the best means to regulate the trans-frontier movements of hazardous waste to date.

B. Arguments Against a Ban

Several arguments can be made against a complete ban on trans-frontier movements of hazardous wastes. First, much is made of the fact that developed countries dump unwanted waste on developing countries, but evidence exists that some developing countries do not favor a complete ban.¹⁷⁷ Developing nations are not completely against importing hazardous wastes into their territory since they earn badly needed cash from such dealings.¹⁷⁸ Recent events, however, have convinced them that "they need help in policing the shipment of wastes, either through the transfer of technology to help them evaluate it, or through the use of some kind of policing mechanism."¹⁷⁹ In fact, despite the recent scandals regarding the dumping of hazardous wastes in developing countries, some African nations continue to make arrangements to dispose of foreign waste.¹⁸⁰ Imposing a complete ban would be engaging in a form of paternalism.

Second, some countries may run out of space in which to dispose of

¹⁷⁵ See *supra* note 159 and accompanying text.

¹⁷⁶ *World Toxic Pact Backed*, 222 ENGINEERING NEWS REC. 13 (1989).

¹⁷⁷ *Waste Shipment Incidents*, *supra* note 106, at 471.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ Helmore, *supra* note 9, at 8, col 1.

their hazardous waste. According to the EPA, within the next decade more than half of the states in the United States will be unable to accept hazardous waste due to a lack of land fill capacity.¹⁸¹ Thus, it is highly likely that in the near future landfills will no longer be available in the United States and Europe. It will then become necessary for companies to enter into legally regulated export agreements with other countries.

Third, the most environmentally sound disposal sites are often found in another country.¹⁸² Where companies lack environmentally acceptable sites for waste disposal at home a complete ban on export is undesirable.¹⁸³ For example, in order to improve their lifestyles and their position in the world economy, many developing countries have actively encouraged industrial development.¹⁸⁴ These countries feel that a total ban is unrealistic, in part, because as they industrialize they will produce waste which they will be unable to dispose of themselves.¹⁸⁵ Since developing nations often lack facilities to dispose of their own hazardous waste, a ban on all exports could ironically harm those it professes to protect.

Fourth, and closely related to the last argument, is that as the United States and European companies find themselves facing increasingly high disposal costs at home and unable to export industrial waste to other countries, they will consider opening plants in developing countries where disposal laws will remain lax.¹⁸⁶ While this will likely lower the disposal costs of these companies, it leaves the developing countries with the problems of having hazardous waste disposed of in their territory. In addition, it is unlikely that these developing countries will be compensated for such disposal.

Fifth, a ban overlooks the possibility of developing countries actually creating a hazardous waste disposal industry. If done properly this could prove very profitable for them in the long-run. In fact, several

¹⁸¹ Porterfield & Weir, *supra* note 4, at 341.

¹⁸² In fact, a neighboring country may contain the nearest disposal site or another country may offer superior disposal technology. OECD, *supra* note 15, at 7-16.

¹⁸³ This argument applies not only to developing countries, but also to many smaller European countries unable to dispose of the hazardous wastes they generate. Handley, *supra* note 10, at 10171. These countries may not be able to afford to build special disposal facilities or geological factors, such as the Netherlands' high water table, may prevent such disposal. *Id.*

¹⁸⁴ Comment, *Hazardous Substances in Developing Countries: Who Should Regulate Foreign Corporations?*, 6 VA. J. NAT. RES. L. 143, 147 (1986). See also Barnes, *supra* note 1, at 392.

¹⁸⁵ Bollag, *supra* note 30, at 45.

¹⁸⁶ Companies have strong economic incentive to relocate to countries with the lowest production costs. In addition, the United States has exercised little control over manufacturing companies which have relocated plants to developing countries. Comment, *Any Place But Here: A Critique of United States Hazardous Export Policy*, 7 BROOK. J. OF INT'L L. 350 (1981).

plans to develop such an industry are already in progress. For example, Zatec Services, a Netherlands company, plans to ship industrial waste to three African nations where a British contractor is building landfills.¹⁸⁷ In addition, two United States companies have proposed to build incinerators in the South Pacific to process waste generated in the United States.¹⁸⁸ Peru is also considering building the developing countries' first incinerator to handle industrial hazardous waste.¹⁸⁹ In contrast to a ban, many developing countries want a technology transfer mechanism that will enable them to obtain the necessary technology from developed countries to build their own disposal plants.¹⁹⁰ The situation was best summed up by Indira Ghandi at the 1972 United Nations Conference on the Human Environment in Stockholm:

The rich countries may look upon development as the cause of environmental destruction, but to us it is one of the primary means of improving the environment of living, of providing food, water, sanitation and shelter, of making the deserts green and the mountains habitable. . . . When [the people] themselves feel deprived how can we urge the preservation of animals? How can we speak to those who live in villages and slums about keeping the oceans, rivers and the air clean when their own lives are contaminated at the source? Environment cannot be improved in conditions of poverty. Nor can poverty be eradicated without the use of science and technology.¹⁹¹

Sixth, many of those who argue for a ban claim that a receiving country's "informed consent" is a sham as far as developing countries are concerned because they lack the scientific and institutional framework to develop comprehensive policies on hazardous waste management.¹⁹² This argument fails to recognize that by banning all hazardous waste, developing countries may be given a false sense of security that will cause them to fail to develop an understanding of the problem of hazardous waste disposal and ways in which to deal with it. If in banning all hazardous waste exports it could also be guaranteed that developing countries would never have to deal with hazardous wastes, a ban would be effective. Such a guarantee is unlikely, however, because, as mentioned above, developing countries will develop their own industries, will have to deal with multinational companies locating within their borders to

¹⁸⁷ Helmore, *supra* note 9, at 8, col. 2.

¹⁸⁸ Porterfield & Weir, *supra* note 4, at 344.

¹⁸⁹ Millman, *supra* note 20, at 6.

¹⁹⁰ *Developed, Developing Countries Disagree*, *supra* note 115, at 376.

¹⁹¹ See Anand, *Development and Environment: The Case of the Developing Countries*, 20 INDIAN J. INT'L L. 1 (1980).

¹⁹² Handley, *supra* note 10, at 10182.

take advantage of their lax legal provisions and illegal dumping will continue.

Finally, a ban will, in all probability, lead to an increase in the amount of illegal dumping that occurs.¹⁹³ Since a ban itself does nothing to reduce disposal costs, and most likely raises them, more and more companies may find themselves faced with the decision of going out of business or dumping their hazardous wastes illegally. Further, members of developing countries will continue to find it profitable to take on such wastes. If developing countries remain unprepared to deal with hazardous wastes, we are likely to see a sharp increase in environmental disasters.

C. Solutions

Although none of the existing legal provisions controlling the transfrontier movement of hazardous waste addresses the root of the problem, namely the economic force that drives hazardous waste export,¹⁹⁴ the UNEP Convention goes further as a international legal device than do the other regulatory measures or would a complete ban on such exports. The problem with the OECD and EC provisions, as well as with the United States' regulations is that they do not come close to providing a "level playing field" among the world's nations.¹⁹⁵

The goal of a "level playing field" for international shipping requirements would be more closely met under both the UNEP Convention and a complete ban on all hazardous waste exports.¹⁹⁶ Neither, however, addresses the problem of divergent hazardous waste management laws among the world's nations.¹⁹⁷ It seems unlikely that any international regulation is capable of directly "leveling the playing field" in this way.

Because the UNEP Convention allows for the possibility of hazardous waste export (at least in theory) it provides an incentive for developing nations to advance their environmental regulations, and thus goes further than a complete ban in attempting to even out the world's divergent hazardous waste management regulations. The result will be a more equitable world in the long-run.

¹⁹³ Although illegal dumping will continue to exist under the UNEP Convention, by providing legal means of export the Convention lessens the incentive to take this route.

¹⁹⁴ Porterfield & Weir, *supra* note 4, at 344.

¹⁹⁵ See *supra* note 3 and accompanying text. Such regulations only bind a small number of countries and are not adequately enforced. Further, none deal with the needs of developing countries.

¹⁹⁶ This assumes that each would bind a substantial number of countries, thus evening out the regulations on hazardous waste export.

¹⁹⁷ While the laws governing export would be the same, laws governing disposal within a country would remain vastly different.

A complete ban is directed toward the goal of overall waste reduction. While this goal is not to be taken lightly (in fact it is one of the goals of the UNEP Convention), a policy favoring waste reduction will not necessarily reduce risks nor make it clear which risks we choose to live with.¹⁹⁸ Further, because implementation of the UNEP Convention encourages developing countries to adopt stricter internal regulations regarding hazardous waste, it should eventually make it as costly to dispose of waste abroad as at home. Thus, companies will turn to waste reduction as a means of cost reduction. A ban, by emphasizing symbolic, short-run solutions, makes it unreasonable to expect changes in the nature of hazardous waste policy in developing countries and thus the incentive to dispose of hazardous wastes illegally will remain.

Because the problem of transfrontier movement of hazardous waste is mainly an informational and an economic one, those who argue for a ban may be better off directing their efforts at drafting legislation that would provide industry with incentives to reduce waste production and to undertake proper disposal methods. This could be accomplished through a system in which industry receives money or tax breaks if it can show implementation of waste reduction technology and proof of compliance with legal disposal methods.¹⁹⁹ Such a plan would change the cost considerations which currently make foreign disposal attractive.²⁰⁰ In addition, developed countries could encourage the transfer of technology and information to developing countries by providing consultants to work with the national leaders of developing nations.

It has been argued that an efficient and coherent system of control of transfrontier movements of hazardous waste should neither create barriers to nor affect competition.²⁰¹ While the UNEP Convention will affect the competitiveness of private companies by making it harder and more costly for them to export their hazardous waste in the short-run, the Convention, if it accomplishes all it sets out to do, will be more beneficial in the long-run than will a complete ban on all hazardous waste export. In addition, the Convention will make it equally more difficult and costly for all companies located in the countries which are parties to the UNEP Convention to dispose of their hazardous waste.

At this time it is difficult to predict the Convention's effectiveness,

¹⁹⁸ *Issues and Policy Considerations*, *supra* note 92, at 227. One illegal shipment could cause more harm than thousands of regulated shipments.

¹⁹⁹ Russell, *Economic Incentives in the Management of Hazardous Waste*, 13 COLUM. J. ENV'T'L L. 257, 265 (1988) (discussing hazardous waste disposal within the United States).

²⁰⁰ *Id.* at 266.

²⁰¹ Council Directive of Dec. 6, 1984 on the Supervision and Control Within the European Community of the Transfrontier Shipment of Hazardous Waste (84/631/EEC) No. L. 326/31.

because it is unclear how many (and which) countries it will bind. Currently, the Convention is open for signature by states and political and/or economic integration organizations,²⁰² with an interim secretariat overseeing its implementation prior to ratification.²⁰³ The UNEP Convention is, however, likely to become the most binding international agreement dealing with the transfrontier movement of hazardous wastes.

VI. CONCLUSION

The goal of a "level playing field" addresses the economic and legal problems behind the transfrontier movement of hazardous wastes. Only when individual nations have substantially similar regulations governing the management of hazardous wastes will we find not only that private companies no longer have incentives to export their hazardous waste to developing nations, but also that such companies will not suffer economic harm by complying with strict environmental regulations at home.

As developed nations began to pass tougher environmental regulations regarding hazardous waste management, companies found it increasingly more costly to comply with such regulations and thus sought cheaper disposal alternatives. While regulations within developed nations, such as the United States, have attempted to control the problem of hazardous waste export, their effectiveness has been questionable given the ambiguous quality of many provisions and the difficulty of enforcing them. Likewise, the EC and OECD attempts at international regulations have not proven any more successful, in part, because member nations have not implemented the regulations and because enforcement provisions have been weak.

A ban on all exports of hazardous waste addresses neither the economic or legal causes of the hazardous waste problem. Under a complete ban, companies in developed nations would still face higher disposal costs than companies located in countries with less strict environmental regulations. In addition, the legal regulations among the world's nations will remain divergent. Although the ban would encourage a reduction in the generation of hazardous wastes, it is unlikely that a ban would go as far in protecting the interests of developing nations as would a provision that encouraged these developing nations to advance their legal and technical standards governing hazardous waste management. Further, once the disposal regulations of developing nations are as strict as those of developed countries, companies will no longer have an economic incen-

²⁰² *UNEP Convention*, *supra* note 97, at art. 21.

²⁰³ *UNEP Member Appointed to Assist Waste Control Convention Secretariat*, 12 Int'l Env't Rep (BNA) 607 (Dec. 13, 1989).

tive to export their wastes. At such time, the most viable cost reduction method will be to reduce the quantity of hazardous wastes produced.

The UNEP Convention will go the furthest in "leveling the global playing field." Because the Convention permits the transfrontier shipment of hazardous wastes under certain conditions it encourages developing nations to implement regulations governing such wastes. In addition, the UNEP Convention requires developed nations to assist developing countries in obtaining technology advances relating to such wastes. In the meantime, the UNEP Convention prevents the shipment of hazardous wastes to any nation which does not want the waste or cannot dispose of it properly. Thus, the UNEP Convention better protects the interests of developing nations both now and in the future.

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