Hazardous Exports To The Third World. The Need to Abolish The Double Standard

The recent Rhine[1] Chernobyl[2] and Bhopal[3] disasters, and the international tensions surrounding acid rain[4] and the greenhouse effect,[5] are graphic reminders of the necessity of international cooperation in preventing and remedying environmental problems whose effects cross national boundaries. These problems are similar in effect to another less conspicuous international problem that has taken many lives and created vast environmental damage: U.S. businesses export hazardous technology and products, often banned in the U.S., to Third World countries. Hazardous exports usually create no explosions or radiation clouds; nevertheless, their effects are often catastrophic.

Hazardous exports can be categorized as *hazardous products* and *hazardous technology* Products are considered "hazardous" when they are restricted or banned for domestic use, but may be exported to less regulated markets in developing countries. The extent of the harm caused by these products is largely unknown, but several well-documented cases illustrate its severity [6]

1. *See generally* Lewis, *Huge Chemical Spill in the Rhine Creates Havoc in Four Countries*, N.Y. Times, Nov. 11, 1986, at A1, col. 3.

2. *See generally* Barnathan & Strasser, *Meltdown*, Newsweek, May 19, 1986, at 22.

3. *See generally* Stoler, *Inside Story of Union Carbide India Nightmare*, U.S. News & World Rep., Jan. 21, 1985, at 51; *see* Robertson, *Introduction to the Bhopal Symposium*, 20 TEX. INT'L L.J. 269 (1985); *see also*, Bordewich, *The Lessons of Bhopal: The Lure of Foreign Capital is Stronger Than Environmental Worries*, ATLANTIC, Mar. 1987 at 30.

4. *See* Wetstone & Rosencranz, *Transboundary Air Pollution: The Search for an International Response*, 8 HARV. ENVTL L. REV. 89 (1984).

5. *See* Stoel, *Fluorocarbons: Mobilizing Concern and Action*, in ENVIRONMENTAL PROTECTION: THE INTERNATIONAL DIMENSION 45 (D. Kay & H. Jacobson eds. 1983).

6. For example, U.S. corporation exported methyl mercury, fungicide prohibited in the U.S., to Iraq, in 1971. The fungicide was applied to wheat and barley seeds used for baking. Subsequent consumption of cakes and breads made from contaminated grain killed more than six thousand people. *See Export of Hazardous Products: Hearings Before the Subcomm. on International Economic Policy and Trade of the House Comm. on Foreign Affairs*, 96th Cong., 2d Sess. 22-23 (1980) (statement of Faith T Campbell, Research Associate, Natural Resources Defense Council). *Cf.* Ruttenberg, *Hazard Export: Ethical Problems, Policy Proposals and Prospects for Implementation*, in THE EXPORT OF HAZARD: TRANSNATIONAL CORPORATIONS AND ENVIRONMENTAL CONTROL ISSUES 44 (J. Ives ed. 1985) ("As much as 30 per cent, or more, of all chemicals which the U.S. exports have been prohibited for use within the

Hazardous technology comprises manufacturing equipment, facilities and even entire industries. This technology is considered hazardous when it is banned or closely regulated when used in this country Typically as the wealth and standard of living in industrialized nations rise, so does the value placed on a clean environment and safe working conditions. This motivates the governments of such nations to impose strict environmental and safety regulations. Industry faced with the higher costs of doing hazardous business, is tempted to relocate in Third World countries where its activities would be subjected to little or no regulation.[7] The resulting transfer of hazardous technology can be disastrous. Bhopal is not the only example of what can happen when a hazardous industry relocates in a country lacking the equivalent of the Occupational Safety and Health Administration (OSHA) or the Environmental Protection Agency (EPA).[8]

This note analyzes various methods of regulating hazardous ex ports to Third World countries and the problems associated with each. Part I considers unilateral regulation of hazardous exports, and Part II international regulation. Part III proposes an approach based on the proposition that countries generally should not allow the export of products and technology considered unsafe for domestic use.

United States."); Castleman, *The Double Standard in Industrial Hazards*, in *Id.* at 76 ("In the state of Sao Paulo, Brazil, alone, an estimated 2,000 people die each year from pesticide poisoning.").

7 While most developing countries now have environmental protection agencies, most are understaffed, underfunded, and overruled by economic planners who still see development and safety as mutually exclusive goals. Bordewich, *supra* note 3, at 33.

8. In 1980, for example, Nicaraguan chemical plant, partly owned and managed by American interests, exposed workmen to mercury poisoning. Pools of mercury lay on the plant' floor. The workmen were not informed of the risks of their work, nor had management supplied the necessary protective equipment. Investigators also found that tons of mercury had been discharged into nearby city's water source. *See* Ives, *The Health Effects of the Transfer of Technology to the Developing World: Report and Case Studies*, in THE EXPORT OF HAZARD: TRANSNATIONAL CORPORATIONS AND ENVIRONMENTAL CONTROL ISSUES 181-82 (J. Ives ed. 1985). Another hazardous technology exported abroad is asbestos. Despite widespread concern over the production of asbestos products in developed countries, asbestos plants are in operation or planned in Tunisia, the Philippines, India, Nigeria, Sri Lanka, Mexico, Taiwan and other third world countries. Castleman, *supra* note 6, at 68-70; *See also* Shaikh, *The Dilemmas of Advanced Technology for Third World*, TECH. REV., Apr. 1986, at 62 (Mexico and Taiwan have replaced Canada and the United Kingdom as the world's leading suppliers of asbestos).

I. Unilateral Regulation Of Hazardous Exports

A. *U.S. Regulation of Hazardous Exports*

Circumstances requiring the prohibition of exports of hazardous products under current law are rare. The Consumer Product Safety Commission (CPSC) is authorized to ban exportation if a product presents "an unreasonable risk of injury to consumers within the United States."[9] This "boomerang effect" does not, however consider risks to those living outside the United States.

The Export Administration Act (EAA) allows the President to restrict the export of goods and technology if it is "necessary to further significantly the foreign policy of the United States or to fulfill its declared international obligations."[10] This provision has been invoked by the President to prohibit the export of technology to further U.S. foreign policy such as in the case of the Soviet Pipeline embargo.[11] Two other grounds for denying exportation under the EAA are: 1) for the protection of national security such as exporting sensitive nuclear technology to unfriendly nations, and 2) for the protection of scarce materials in the U.S.[12] These grounds do not consider the environmental or public health impacts on the importing countries.

The U.S. notifies importing countries when certain heavily regulated or banned goods, such as pesticides, toxic chemicals, adulterated foods and drugs, are to be exported.[13] But since the

9. Consumer Product Safety Act, 15 U.S.C. § 2067(a)(1)(B) (1982).

10. Export Administration Amendment Act of 1985, 50 U.S.C. § 2405(a)(1) (1982 & Supp. 1986).

11. *See generally* Butler, *The Extraterritorial Reach of the United States Export Administration Act: Reflections on the Yamal Pipeline Controversy*, 1983 J. Bus. L. 275 (1983).

12. 50 U.S.C. §§ 2405-06.

13. Section 17(a) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires an exporter of banned pesticide to obtain statement from the buyer that he is aware of the product' banned status, and that it be sent to the EPA. The exporter is then free to ship the goods even before the importing country receives notice of the shipment from the State Department. 7 U.S.C. § 136o(a)(2) (1982). Section 17(b) requires the EPA to notify foreign governments of regulatory actions it considers to have international consequences, such as registration, cancellation or suspension of pesticide. 7 U.S.C. § 136o(b) (1982). The Toxic Substances Control Act (TSCA) requires the exporting company to notify the EPA of the export, which then notifies the importing country. Consent of the importing country is not required. 15 U.S.C. § 2611(b) (1982). The EPA may, however, ban export if it determines that there is an unreasonable risk of injury to the health or environment within the U.S. 15 U.S.C. § 2611(a)(2) (1982); 21 U.S.C. § 360d (Supp. 1986). Adulterated foods are also regulated by rules authorized by the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 342 (1982). Certain misbranded or banned corrosives, irritants, combustibles and other similar products require notification of the

exporter may ship the goods without prior consent of the importing government (hazardous waste being the only exception),[14] these notification requirements do little to restrict hazardous exports.

B. *Obstacles to Adequate Unilateral Solutions*

An exporting country could adequately regulate hazardous exports to the Third World only by banning or restricting exportation of those products and technologies it considered unsafe for domestic use unless the importing nation consented and assumed the risk of those exports. Even assuming that policy makers of an exporting country wished to enact such a regulatory program, there would be substantial obstacles to overcome.

1 The Politics and Economics of Export Regulation

The Carter Administration concluded that the U.S. could no longer allow the unfettered exportation of products banned in this country President Carter implemented by executive order a program which reviewed all banned or restricted products. In most cases, the products could be exported provided the importing government was notified. However for "extremely hazardous" products or substances, export licenses were conditioned on consent of the importing government.[15] It was hoped that the importing country would then be able to balance the risks and benefits of such products and make an informed decision as to whether to allow importation.[16]

But few policies are as unwelcome as self-inflicted trade barriers at a time when the U.S. is suffering from a trade deficit. Consequently one of President Reagan s first actions was to revoke the Carter Executive Order [17] The President relied on reports from the State and Commerce Departments which suggested that requiring notification of banned products would put U.S. firms at

importing government before export is permitted. Hazardous Substances Control Act, 15 U.S.C. § 1273(d) (1982).

14. The Resource Conservation and Recovery Act (RCRA) requires consent from the receiving country before hazardous waste is exported. 42 U.S.C. § 6938(a)(1)(B),(d) (Supp. 1986).

15. Exec. Order No. 12,264, 46 Fed. Reg. 4659 (1981); *see* King, *Hazardous Exports: A Consumer Perspective* in THE EXPORT OF HAZARD: TRANSNATIONAL CORPORATIONS AND ENVIRONMENTAL CONTROL ISSUES 8 (J. Ives ed. 1985).

16. *See* Ashford, *Control the Transfer of Technology*, N.Y. Times, Dec. 9, 1984, at F2, col. 2.

17 Exec. Order No. 12,290, 46 Fed. Reg. 12,943 (1981).

a competitive disadvantage.[18] This hazardous exports policy has been criticized for having been decided strictly in economic terms with little regard for health and environmental concerns.[19] In a similar move, Congress recently repealed legislation prohibiting the export of new drugs which have not yet met approval from the Food and Drug Administration (FDA).[20]

2. Extraterritoriality of U.S. Law

The traditional view that American businesses are free to export banned products was established in the 1931 case of *United States v. Catz American*.[21] The 9th Circuit held that a product banned for use in the U.S. could be shipped to a foreign buyer if "the foreign purchaser has ordered the precise kind and quality which the exporter designs to send him. "[22] Even if the importing country s law prohibited the use of the product, the court held that there was a presumption that the importer would make the product comply with the law before using it.[23] The dissent argued that "the fact that such shipment [is] destined for a for eign port does not divest it of its outlawed nature."[24] Neverthe less, *Catz* has never been overruled.[25]

Extraterritoriality problems may arise in applying U.S. law to American companies which manufacture hazardous products or use hazardous technology abroad. Even where an American company s activity is clearly against U.S. law and public policy the

18. *See* REPORT TO THE PRESIDENT ON THE REVIEW OF U.S. HAZARDOUS SUBSTANCES EXPORT POLICY; COVER LETTER TO U.S. TRADE REPRESENTATIVE FROM SECRETARIES HAIG AND BALDRIDGE, *reprinted in* 5 INT'L ENV'T REP (BNA) No. 6, at 267-68 (May 10, 1982).

19. *See* Ruttenberg, *supra* note 6, at 49-50; *see also* Shaikh, *supra* note 8, at 60.

20. *See generally* Cook, *The U.S. Export of "Pipeline Therapeutic Drugs*, 12 COLUM. J. ENVTL. L. 39 (1986). The U.S. consistently resists restricting exports even after restriction reaches worldwide consensus such as in the case of baby formula. *See* Note, *Spilled "Milk A Rebuttal to the United States Vote Against the International Code of Marketing of Breast-Milk Substitutes*, 2 B.U. INT'L L.J. 103 (1983).

21. In *Catz*, 2,000 sacks of "filthy, decomposed, putrid" figs, banned for use in the U.S., were to be shipped to an Austrian coffee brewer. 53 F.2d 425 (9th Cir. 1931).

22. *Id.* at 426.

23. *Id.*

24. *Id.* at 428.

25. *Catz* may be limited where the product has been removed from the domestic market and seized by the Consumer Products Safety Commission. *See* U.S. v. Articles of Hazardous Substance, 588 F.2d 39 (4th Cir. 1978) (court held that seizure cannot be avoided simply by finding foreign buyer and exporting the product).

U.S. may refuse enforcement out of respect for the sovereignty of the country where the company is doing business.[26]

3. International Conflict of Law

Assuming U.S. lawmakers passed legislation aimed at restricting hazardous exports and the courts upheld its extraterritorial reach, there would still remain complicated questions of international conflict of law The traditional approach to international conflict of law has been to determine which country has the "vested right" in applying its law [27] The Restatement (Second) of Conflict of Laws takes a different approach: the law of the state with "the most significant contacts" is applied by considering six factors.[28] If applied to a conflict between U.S. extraterritorial regulation of hazardous exports and an importing nation s domestic law the restatement approach would provide little predictability as to when U.S. law would prevail.

4. Violation of the Importing Nation s Sovereignty

Determining which products a country imports for the use of its citizens falls well within the rubric of the importing nation s sovereign powers. This sovereign right enjoyed by the importing country is violated, some commentators argue, when exporting nations prohibit exportation.[29] For example, one Third World

26. For example, in Fruehauf v. Massardy, the U.S. chose not to dispute matter where contract made by U.S. company doing business in France violated the Trading with the Enemy Act, but where French law required execution of the contract. [1968] D.S. Jur. 147 [1965] J.C.P II 14, 274 bis (Cour d'appel, Paris), *reprinted in* 5 I.L.M. 476 (1966) (English translation). *See generally* Craig, *Application of the Trading with the Enemy Act to Foreign Corporations Owned by Americans: Reflections on Fruehauf v. Massardy*, 83 HARV. L. REV. 579, 580 (1969).

27 *See generally*, Comment, *State Responsibility and Hazardous Products Exports: A Solution to an International Problem*, 13 CAL. W INT'L. J. 116, 127 (1983).

28. When there is no such directive, the factors relevant to the choice of the applicable rule of law include:

(a) The needs of the interstate and international systems,
(b) the relevant policies of the forum,
(c) the relevant policies of other interested states and the relative interests of those states in the determination of the particular issue,
(d) the protection of justified expectations,
(e) the basic policies underlying the particular field of law,
(f) certainty, predictability, and uniformity of result, and
(g) ease in the determination and application of law to be applied

RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 6(2) (1971).

29. *See* Magraw, *Transboundary Harm: The International Law Commission Study of "International Liability,* 80 AM. J. INT'L. 305, 325 (1986).

country accused the developed world of "environmental imperialism" when export controls were used to protect its environment and public health.[30]

The controversy surrounding DDT the pesticide which first sparked American environmental awareness, illustrates the complexity of this problem on the international level. S. Ambalavaner of Sri Lanka testified at a public hearing conducted by the United Nations Environment Programme (UNEP) that his country s government was

> aware of the difficulties involved in using DDT but nevertheless we imported it because we had no alternative to deal with malaria. And it is not necessary for the developed countries to place an embargo, or to set the standards for the import of goods, of whatever nature, in the developing countries. That remedy is in our hands.[31]

But Sri Lanka did not speak for the entire Third World. Philip Leakey of Kenya disagreed with Mr Ambalavaner s position, and blamed the exporting countries for not restricting their hazardous exports: "The industrial nations are consistently and continuously allowing the export to developing countries of technologies that they don t want to use because they are too dangerous."[32] But, he explained, the developing countries have no choice but to purchase the goods because they are needed. The real problem was that "developing countries accept hazardous industrial processes without knowing that they are hazardous. Because the expertise for evaluation may not be available, the industrial nations *are* to blame."[33]

This statement illuminates the major weakness of the sover eignty violation argument. If Third World countries depended on the developed countries for their hazardous imports only because they lacked the capability to manufacture them, but had the technology to regulate them, the sovereignty argument would be more persuasive. But usually a deficiency of industrialization is accompanied by a deficiency in regulatory expertise. It follows that if the Third World is dependent on developed nations for their hazardous imports, they should also depend on their accom-

30. United Nations Environment Programme, *The Human Environment: Action or Disaster* 52 (1983); *see* Bordewich, *supra* note 3, at 30 ("Until recently, moreover, environmentalism was often viewed as Western plot to retard the growth of poorer countries.").

31. *Id.*

32. *Id.*

33. *Id.*

panying regulatory safeguards. Exporting nations should not assume that Third World nations are in the same position as they to regulate the importation of hazardous products and technology [34] Furthermore, no foreign buyer has the sovereign right under international law to compel the sale to them of American-made goods.

5. Export Regulation as Paternalism

The paternalism argument against export regulation is more persuasive than the sovereignty argument. Export restrictions may be inappropriate and condemned as paternalistic if they are imposed on an importing country that does not share the environmental and economic concerns of the exporting country [35] The disparity in priorities may be well-justified. For example, a developing country might have such clean air that it could support several heavy industries without significant degradation to its air quality It might view its clean air as a revenue-generating asset by selling to hazardous industries the right to degrade it. An

34. Regulating hazardous products and technology presupposes the existence of bureaucratic and scientific capability.

> Many, if not most, decisions regarding the safety of drug or pesticide or consumer product involve highly sophisticated level of scientific expertise and advanced technology testing resources which are not available to all sovereign nations. Because it is available to U.S. decisionmakers, there is widespread reliance on those decisions by countries both with and without the capacity to make their own.

HOUSE COMM. ON GOVT. OPERATIONS, REPORT ON EXPORT OF PRODUCTS BANNED BY U.S. REGULATORY AGENCIES, H.R. REP No. 1686, 95th Cong., 2d Sess. 26-27 (1978) (Dr. Donald Kennedy, FDA Commissioner). Additional problems arise because the work force and public in Third World countries may not be adequately educated concerning the risks of applying the technology or using the product. *See* Ashford & Ayers, *Policy Issues for Consideration in Transferring Technology to Developing Countries*, 12 ECOLOGY L. Q 871, 875-76 (1985); *see also* Bordewich, *supra* note 3, at 30.

35. Richard Falk suggests that tremendous divergence in national priorities may exist between countries:

> States have priorities distinct from one another that lead them to perceive the issues of the endangered planet in very diverse ways. As consequence, it is virtually impossible to obtain agreement even on an agenda of concerns. National governments formulate planetary priorities to reflect the ranking and character of national priorities. Diversities of power, wealth, ideology, and history create the basic diversity of outlook on the part of national governments. For most governments, especially those with mass poverty, the primary concern is to raise GNP at satisfactory rate and to secure internal security in relation to rebellion and external security in relation to potential aggressors. Any other concern seems remote and may be viewed with suspicion that it is nothing but malicious distraction from the business of the day.

R. FALK, THIS ENDANGERED PLANET 40 (1971).

exporting country would be paternalistic if it denied the importing country this agenda.

In summary formidable obstacles thwart effective unilateral solutions to the hazardous export problem. Even in a country with a strong commitment to environmental protection and consumer safety political and economic realities frustrate efforts to regulate the flow of hazardous exports. Export regulations are subject to extraterritoriality and conflict of laws challenges in domestic courts, and exporting nations may be accused of sovereignty violations and paternalism. Unilateral action may also be frustrated by the manufacturer's relocating in a country with less stringent health, safety or environmental regulations.[36]

II. International Regulation of Hazardous Exports

A. *Action by International Organizations*

Several international organizations have addressed the hazardous export problem. The United Nations General Assembly has passed several resolutions discouraging the use of hazardous chemicals and unsafe pharmaceutical products.[37] While these resolutions are more an exhortation than declaration of current international law and while no mandatory system of trading information has been implemented, these resolutions evince a willingness by many nations to work together to solve the hazardous exports problem.[38]

36. It is unclear how many businesses are compelled to move abroad by the costliness of compliance with U.S. laws. Several commentators indicate that relocation may be minimal. *See* Levenstein & Eller, *Exporting Hazardous Industries: "For Example Is Not Proof*, in The Export of Hazard: Transnational Corporations and Environmental Control Issues 8 (J. Ives ed. 1985); *see also* Leonard, *Confronting Industrial Pollution in Rapidly Industrializing Countries: Myths, Pitfalls, and Opportunities*, 12 Ecology L.Q. 779 (1985); J. Leonard, Are Environmental Regulations Driving U.S. Industry Overseas? 51-59 (1984). *But see* Castleman, *Response to Levenstein-Eller Critique*, in The Export of Hazard: Transnational Corporations and Environmental Control Issues 90-93 (J. Ives ed. 1985).

37 G.A. Res. 137 37 U.N. GAOR Supp. (No. 51) at 112, U.N. Doc A/37/51 (1983) (prepares list of banned products); G.A. Res. 166, 36 U.N. GAOR Supp. (No. 51) at 193, U.N. Doc A/36/51 (1982) (encourages the exchange of information on banned hazardous chemicals and pharmaceuticals); G.A. Res. 186, 35 U.N. GAOR Supp. (No. 48) at 202, U.N. Doc A/35/48 (1981) (encourages the exchange of information on banned hazardous chemicals and pharmaceuticals); G.A. Res. 173, 34 U.N. GAOR Supp. (No. 44) at 189, U.N. Doc A/34/44 (1981) (encourages the exchange of information on banned hazardous chemicals and pharmaceuticals).

38. While U.N. resolutions are not usually legally binding in the same sense that treaties are, they may evidence "expressions of common interests and the 'general will' of the

United Nations Environment Programme (UNEP) has urged countries to develop notification procedures for the international exchange of hazardous wastes, since the high cost of treating waste in the U.S. has lured some companies to look to the Third World as a potential dumping ground.[39] UNEP also established a program to encourage member nations to notify each other of restrictions on hazardous waste and chemicals.[40] Two other UN affiliated agencies, the World Health Organization (WHO) and the Food and Agriculture Organization (FAO), have engaged in efforts to protect public health in the international trade of food.[41] Similar programs exist for hazardous pharmaceuticals.[42]

Several United Nations commissions have addressed hazardous exports. The United Nations Conference on Trade and De velopment (UNCTAD) is currently preparing a Draft Code of Conduct on the Transfer of Technology But the primary objec tive of the Conference runs counter to the regulation of the flow of hazardous technology to the Third World: the Conference hopes to liberalize barriers in trading technology [43] The United Nations Commission on Transnational Corporations is more sensitive to the problems of hazardous exports. The Draft Code of Conduct on Transnational Corporations contains several relevant provisions. The consumer protection provisions would impose substantial duties on corporations exporting hazardous products.[44] To accomplish this, the corporations should disclose to

international community. O. SCHACHTER, INTERNATIONAL LAW IN THEORY AND PRAC TICE 111 (1982).

39. *See* Castleman, *surpa* note 6, at 80-81; Comment, *Hazardous Exports From Human Rights Perspective*, 14 SW. U.L. REV 81, 84-85 (1983); *see also* note 36.

40. *See generally* Halter, *Regulating Information Exchange and International Trade in Pesticides and Other Toxic Substances to Meet the Needs of Developing Countries*, 12 COLUM. J. ENVTL. L. 1 (1986).

41. *See* A. SPRINGER, THE INTERNATIONAL LAW OF POLLUTION: PROTECTING THE GLOBAL ENVIRONMENT IN WORLD OF SOVEREIGN STATES 107 (1983).

42. *See generally* Cook, *supra* note 20, at 39.

43. *See* Roffe, *Transfer of Technology: UNCTAD' Draft International Code of Conduct*, 19 INT'L LAW 689, 692 (1985).

44. Section 37 provides that:

> Transnational corporations shall/should also perform their activities with due regard to relevant international standards, so that they do not cause injury to the health or endanger the safety of consumers or bring about variations in the quality of products in each market which would have detrimental effects on consumers.

U.N. Commission on Transnational Corporations, Draft Code of Conduct of Transnational Corporations, U.N. ESCOR Annex Supp. (No. 7) at p. 19, U.N. Doc. E/1983/17/Rev.1 (1983), *reprinted in* 23 I.L.M. 626, 632 (1984).

importing nations any "prohibitions, restrictions, warnings and other public regulatory measures imposed in other countries."[45] The corporation must also "disclose to the public all appropriate information on the contents and, to the extent known, on possible hazardous effects" of exports.[46]

The United Nations is not the only international organization to have addressed the hazardous export problem. The Organization for Economic Cooperation and Development (OECD) requires its members to "prohibit movements of hazardous wastes to a final destination in a non-Member country without the consent of that country."[47] While the agreement is binding upon member nations, the recommendations for implementing the program are not.[48]

Similarly the Council of the European Economic Community (EEC) recently passed the Directive on Transfrontier Shipment of Hazardous Waste, which establishes a system of monitoring hazardous waste between EEC countries.[49] The EEC program is the most rigorous international regulation of hazardous exports; therefore, it has been difficult to implement. While member states are bound to adopt the legislation enacted by the EEC, problems have arisen because the legislation is complex and cannot be easily integrated into the member states existing environmental laws.[50]

These actions by the United Nations and other international organizations represent an international awareness of the magnitude of the risks to public health and the environment caused by hazardous exports. Unfortunately they have had little real impact on the way nations behave. With the exception of the EEC's program, the agreements do not create binding duties. In addition, the solutions promulgated by the EEC and OECD apply only to member nations, each of which has a sophisticated bureaucracy and an environmental protection agency and not to Third World countries, most of which lack such institutions.

45. *Id.* at § 38.

46. *Id.* at § 39.

47 Council Decision-Recommendation on Exports of Hazardous Wastes, OECD Doc. C(86) 64 (June 12, 1986), *reprinted in* 25 I.L.M. 1010, 1011 (1986).

48. *See* Comment, *International Regulation of Transfrontier Hazardous Waste Shipments: A New EEC Environmental Directive*, 21 TEX. INT'L. L.J. 85, 116 (1985).

49. Directive on the Supervision and Control Within the European Community of the Transfrontier Shipment of Hazardous Waste, 27 O.J. Eur. Comm. (No. L 326) 31 (1984).

50. *See* Comment, *supra* note 48, at 93-4.

B. *State Liability*

To avoid many of the problems common to unilateral and international regulation of hazardous exports, some commentators have proposed holding the exporting countries liable for harm to importing countries. The Bhopal disaster has generated tremendous interest in the liability issue, leading some commentators to consider the appropriateness of holding the U.S. liable as the exporting country of Union Carbide.[51]

This liability would be based on customary international, rather than domestic, law. Gunther Handl argues that "it is a well established principle of international law that the international liability a state may incur for the acts of private persons is a function of that state's control over the activities concerned."[52] Likewise, several commentators suggest that, read together the *Trail Smelter* arbitration[53] and *Corfu Channel* case[54] articulate the international duty that a state may be held responsible for activities originating within its territorial jurisdiction when the effects of such activities extend beyond that jurisdiction to the injury of nationals of other states.[55] The International Law Commission of the United Nations is currently studying the topic, "International Liabililty for Injurious Consequences Arising out of Acts Not Prohibited by In-

51. Magraw, *supra* note 29, at 325-26. Another proposal is to require the exporting state to open up its courts and apply its domestic laws against the exporting company for the benefit of foreign plaintiffs. *See* Weinberg, *Insights and Ironies: The American Bhopal Cases*, 20 TEX. INT'L. L. J. 307, 311-12 (1985).

52. Handl, *State Liability for Accidental Transnational Environmental Damage by Private Persons*, 74 AM. J. INT'L L. 525, 527 (1980).

53. An arbitral tribunal held that Canada was liable to pay the United States damages for crop damage in Washington State caused by British Columbian smelter. The tribunal held that

> no State has right to use or permit the use of its territory in such manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.

Trail Smelter Arbitration (U.S. v. Canada), 3 R. Int'l Arb. Awards 1905, 1965 (1941), *reprinted in* 35 AM. J. INT'L L. 684 (1941).

54. The International Court of Justice allowed Great Britain to recover from Albania damages sustained when two British ships hit mines in Albanian territorial waters. The court held that it is every state obligation not to allow knowingly its territory to be used for acts contrary to the rights of other states. Corfu Channel Case, 1948-1949 I.C.J.Y.B. 57, 61 (1949).

55. *See* Comment, *United States Export of Products Banned for Domestic Use*, 20 HARV. INT'L L.J. 331, 371 (1979). Gunther Handl argues that state liability may include strict liability where the injury involved an abnormally dangerous activity. Handl, *supra* note 52, at 564-65.

ternational Law " The Commission distinguishes "state liability " which can be incurred regardless of the lawfulness of the underlying act, from "state responsibility " which arises from unlawful acts.[56]

This emphasis on state liability is of dubious value. The liability theory has been assailed by one commentator as promoting "adversary confrontation."[57] Another writes that "the principles of responsibility and liability for extraterritorial damage have rather limited usefulness for purposes of inducing behavior responsive to the demands of environmental problems."[58] Liability focuses on restitution rather than prevention. Robert Stein voiced this opinion at a meeting of the American Society of Inter national Law where he urged a transition from "confrontation to cooperation," so that states would "solve problems, not just assert rights."[59]

An international approach based on liability would not resolve the hazardous exports problem, since liability does not necessar ily invoke a binding duty to prevent harm. International solutions should not focus on holding the state in control liable after harm has occurred, but should establish normative duties to prevent the harmful effects from occurring. Likewise, the existence of a duty to prevent harm does not create implied liability for the breach of that duty [60]

56. *See* Preliminary Report on International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law, U.N. Doc. A/CN.4/334 and Adds. 1-2 (1980), *reprinted in* [1980] 2 Y.B. Int'l L. Comm n, Part 1 at 247 250 n. 17 U.N. Doc. A/CN.4/SER.A/1980/Add.1 (1980); *see also* Magraw, *supra* note 29, at 307 The Restatement of Foreign Relations Law imposes state responsibility where the state of origin fails "to ensure that activities within its jurisdiction or control conform to generally accepted international rules and standards for prevention, reduction and control of injury to the environment of another state. RESTATEMENT OF FOREIGN RELATIONS LAW OF THE UNITED STATES (REVISED) § 601 (Tent. Final Draft 1985).

57 A. SPRINGER, *supra* note 41, at 142.

58. A. LEVIN, PROTECTING THE HUMAN ENVIRONMENT: PROCEDURES AND PRINCIPLES FOR PREVENTING AND RESOLVING INTERNATIONAL CONTROVERSIES (1977).

59. Robert E. Stein, Remarks to the American Society of International Law, Seventy-fourth Annual Meeting, Washington, D.C., 18 April 1980, *quoted in* A. SPRINGER, *supra* note 41, at 142.

60. An analogy from domestic regulation may be useful. The federal government has assumed the duty, through the EPA, to prevent harm to the public health and environment from industrial air pollution by regulating emissions. If harm occurs right to recover damages does not arise against the EPA, even where the EPA has failed to adequately monitor the industry emissions. Any damages may only be recovered against industry.

The legal basis for holding the exporting state liable for harm caused by private enterprises creates practical problems. For example, since state liability is premised on control,[61] how could the U.S. have prevented the Bhopal disaster after the technology had been exported and the facility in operation? Would it be plausible for OSHA and EPA inspectors to track hazardous exports and technology as they are used in the importing countries? An international solution should not focus on state liability based on vague notions of state responsibility.[62] Liability should be imposed only on exporting companies, which are themselves in the best position to prevent harm.[63]

III. INTERNATIONAL REGULATION BASED ON DOMESTIC STANDARDS: A PROPOSAL

Internationally agreed upon standards, arising from an international convention, might seem to be the ultimate solution. But an international body dictating to Third World countries what they may import would, like unilateral action, be subject to attacks of paternalism and sovereignty infringement. In addition, Third World countries have legitimate economic and environmental agendas which should be respected.

A better international system would be based on the reciprocity of domestic standards, wherein each country would agree to allow unrestricted export of only those products and technologies deemed safe by the exporting country for domestic use. If the product or technology was banned for domestic use, then export would also be banned. If the exporting country imposed regulations on the product's or technology's domestic use, then an export license would be granted on the condition that the exporting company followed those domestic regulations in the product's or technology's application abroad. This system presumes that no

61. *See supra* note 52 and accompanying text.

62. Perhaps state liability should be supplanted with a general duty to make reparations, which may be satisfied by the controlling country's granting injured parties access to its court system to recover damages against the offending private party. *Cf.*, RESTATEMENT OF FOREIGN RELATIONS LAW OF THE UNITED STATES (REVISED) § 602(2) (Tent. Final Draft 1985) ("[T]he state of origin is obligated to ensure that the injured person has access to the same judicial or administrative remedies as are available in similar circumstances to persons within the state's jurisdiction.").

63. Possible exceptions might be justified where the exporting company is owned by the exporting country, or where the exporting country's failure to impose and enforce standards was the proximate cause of the harm.

country should export a products or technology which it considers unsafe for domestic use. A double standard would no longer exist, as under the present system, which presumes that the health and safety of foreign peoples and their environment are secondary to the profitability of exports.

But to insure that the rights of the importing countries are protected, each importing country would be able to waive the regulations of the exporting country thereby assuming the risk of the use of the product or technology In addition, the importing country would be free to impose more or less stringent regulations than those imposed by the exporting country depending on its national priorities.[64] The exporting country would require the exporting company to agree to follow its own domestic environmental and safety standards, unless it received notice that the importing country waived the exporting country s standards in favor of its own.[65] An exception would be allowed where the exporting company volunteered to self-impose more stringent regulations than those imposed by the exporting country [66]

64. DDT is an example of banned product which some importing countries may wish to import despite well known environmental and health concerns. This pesticide has long since been banned in this country because of its toxicity, and replaced by substitutes. One group of substitutes, organophosphate pesticides, are also used in Third World countries. While the long term toxicity of these pesticides is minimal, they are acutely toxic and capable of causing serious injury to humans when being applied. *See* Ives, *supra* note 8, at 179. The substitutes for DDT may well be safer to the environment, but more hazardous for farmers in lesser developed countries because of its acute toxicity. Developing countries might therefore wish to impose less stringent controls on DDT and more stringent controls on organophosphates, than would developed country. In addition, some Third World countries may believe that the benefit of DDT in remedying immediate dangers to public health from disease, such as malaria, outweigh long terms risk to the environment. *See supra* note 31 and accompanying text.

65. In the case of U.S. company manufacturing hazardous product in Third World country for export to other Third World countries, U.S. standards should still govern the export of the product, even though the product was manufactured abroad. The importing country would, of course, be able to waive application of U.S. law.

66. For example, the National Agricultural Chemicals Association has recently adopted special guidelines for pesticides exported to developing countries. The Association has recognized that

> [r]elatively low literacy rates, climatic conditions which may discourage the use of proper protective clothing and equipment, special problems in formulation, transportation and storage, weak or nonexistent regulatory structure, inadequate understanding of acute and chronic effects of exposure, the absence of effective national, regional or local communications networks—all of these and other factors make for formidable challenge to proper use of agricultural chemicals in developing countries.

Accordingly, the association has promulgated voluntary standards for marketing, labeling and exporting pesticides. Letter from Jack D. Early, President, National Agricultural Chemicals Association, to Member Companies Reporting Foreign Sales (May 28, 1986).

Liability for harm caused by the product or technology would not then be imposed on the exporting country but rather upon the exporting company by applying the exporting country's regulatory standards which the exporting company has agreed to follow Of course, if the importing country had waived U.S. standards, liability would be based on the importing country s standards.

A. *The Advantages of a Reciprocal System*

Such a reciprocal system of regulation would have the following advantages:

(1) Importing countries lacking the expertise to regulate the importation and use of hazardous exports would be protected by the imposition of the exporting country s health and environmental protections.[67] This would eliminate the double standard of allowing more developed countries to export products and technology that have been deter mined unsafe for their own citizens.

(2) Importing countries with different agendas for environmental protection and economic development would be free to impose a different set of standards and conditions for hazardous imports. This would protect the importing country s sovereignty and avoid charges of environmental paternalism. Protecting the importing country s agenda would not be possible in a system where an international commission legislates binding standards for all its member nations.

(3) The proposed system minimizes the risk of extraterritoriality and international conflict of law problems since importing countries might waive exporting countries standards and apply their own laws.

(4) The responsibility and ultimate liability would rest on the exporting company which is in the best position to bear the risk of hazardous exports.

(5) The proposed system could function without an international agreement, if necessary since it would not be de-

(discusses adoption of the "Guidelines on Labeling Practices for Pesticide Products in Developing Areas of the World"); *see also* Bordewich, *supra* note 3, at 33 ("Multinationals generally maintain health and safety standards well above those required by the developing countries in which they operate ").

67 The Bhopal disaster is an example of company' operating plant located in an importing country below the standards set by exporting countries for domestic use. As explained by Jackson B. Browning, Union Carbide' vice-president for health, safety and environmental affairs, "There were maintenance problems that would not have been tolerated at plant in the United States. Bordewich, *supra* note 3, at 30.

pendent on international standards. The U.S. could be the first nation to eliminate its double standard and encourage other nations to follow

(6) The proposed system would be easy to implement—it does not require the formulation of new standards, since the system would rely on current domestic standards.

A possible criticism of the reciprocal approach is that it would place a burden on the importing country to enact regulatory policies if it desired to import banned exports. But that might be the approach s strongest asset. The current system of non-binding international agreements and unilateral notification programs allows countries to abdicate to each other the responsibility for regulation: exporting countries assume that importing countries have the expertise and inclination to regulate imports; importing countries assume that imported products are safe and that their citizens know how to use them. Under the proposed system, if an importing nation deemed that the exporting nation s regulations were undesirable, it would have to waive them and promulgate its own standards.[68]

Importing countries would not be left alone in their efforts to enact regulatory schemes if waivers of exporting countries standards were necessary Exporting countries and their exporting companies would have an economic interest in the smooth coor dination of the regulatory process of importing countries in meeting their environmental and economic agendas. They would have an incentive to provide importing countries with the information needed to formulate their own standards and policies. The cur rent system, however encourages little cooperation between the importing countries and exporting countries and companies; rather exporting companies often export without informing the importing country of the hazards since such disclosure is usually not required by the exporting or importing countries.[69]

68. A waiver is not be an abdication since it requires the importing country to formulate policy and assume the risk of the hazardous imports. In contrast, the present system of notifying the importing country of the export (or of obtaining consent before export) does not require the importing country to affirmatively consent to the exporting country domestic standards or replace them with its own standards.

69. A recent example of this comes from the biomedical research industry. A U.S. biomedical company conducted potentially hazardous research of genetically engineered rabies vaccine in Argentina without disclosing the hazards to that government or to their Argentine employees. Company officials justified their failure to disclose the risks by saying that U.S. laws did not prohibit export and Argentina had no rules governing biotech-

B. *Legal Basis for Reciprocal Regulation*

The Export Administration Act (EAA) authorizes the President to restrict any export if it is "necessary to further significantly the foreign policy of the United States or to fulfill its declared international obligations."[70] The point at which behavior among states solidifies into binding "international obligations" is regarded as "opinio juris." It consists of two elements: state practice and state acceptance.[71] Evidence of articulated state acceptance of a general international duty to prevent harm to other nations already exists.[72] In addition, there is an articulated acceptance of a duty to prevent the export of hazardous products without the consent of the importing country.[73] However this articulated acceptance cannot be considered opinio juris since it lacks corresponding state practice—no state requires consent

nology research. Schneider, *Argentina Protests Gene-Splicing Test by U.S. Concern*, N.Y. Times, Nov. 11, 1986, at A1, col. 4.

70. Export Administration Amendment Act of 1985, 50 U.S.C. § 2405(a)(1) (1982 & Supp. 1986).

71. *See* Trimble, *A Revisionist View of Customary International Law*, 33 UCLA L. REV. 665, 679-80 (1986); *see also* L. HENKIN, R. PUGH, O. SCHACHTER & H. SMIT, INTERNATIONAL LAW— CASES AND MATERIALS 36 (1980).

72. The first major international gathering to discuss and recommend solutions to environmental problems was the United Nations Stockholm Conference on the Human Environment of 1972, in which 113 countries participated. The Conference produced the Declaration on Human Environment, which contained two principles addressing state responsibility for environmental harm beyond territorial jurisdiction:

> Principle 21
>
> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and 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.
>
> Principle 22
>
> States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction of control of such States to areas beyond their jurisdiction.

Report of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14 (1972) *reprinted in* 11 I.L.M. 1416, 1420 (1972).

73. In 1982, the U.N. General Assembly passed resolution stating:

> [P]roducts that have been banned from domestic consumption and/or sale because they have been judged to endanger health and the environment should be sold abroad by companies, corporations, or individuals only when request for such products is received from an importing country or when the consumption of such products is officially permitted in the importing country.

The resolution passed by 146 in favor, with the U.S. casting the only negative vote. G.A. Res. 137 37 U.N. GAOR Supp. (No. 51) at 112, U.N. Doc. A/37/51 (1983).

before export of all banned or restricted products and technologies. Nevertheless, once the U.S. recognizes the duty to prevent harm as an international obligation, such a duty will become part of our export policy under the EAA.

Another possible basis for a duty to regulate hazardous exports derives from accepted human rights obligations under customary international law The scope of human rights protected under binding international law was considered in *Filartiga v. Pena-Irala*.[74] A strong argument can be made that endangering the lives of Third World or other peoples from underregulated hazardous exports constitutes a violation of human rights, especially when one considers the extent of the harm caused by hazardous exports.[75] For example, the World Health Organization estimated that 500,000 people are poisoned each year from pesticides alone, of which about 5,000 die.[76]

Conclusion

Substantial impediments preclude unilateral and non-binding multilateral actions from resolving the problems associated with hazardous products and technology Unilateral efforts are subject to changing political and economic currents, the lack of extraterritorial effect of domestic regulations, international conflict of law and charges of sovereignty violations and paternalism. Non-binding international agreements are mere aspirations, and binding international standards are difficult to promulgate and lack

74. 630 F.2d 876 (2d Cir. 1980). That case involved wrongful death action brought by two Paraguayan plaintiffs against Paraguayan official. The plaintiffs alleged death by torture in violation of customary international law. The court held that torture was violation of international law after analyzing relevant international agreements. The court based its decision on duties imposed by the U.N. Charter and the Universal Declaration of Human Rights, which it concluded were binding on the United States. The court considered other cases which found other conduct violative of customary international law, such as assassination, brutal treatment of refugees, impermissible overcrowding, as well as others. The court recognized that other conduct may fall within violation of human rights under customary international law:

> [A]lthough there is no universal agreement as to the precise extent of the human rights and fundamental freedoms guaranteed to all by the [U.N] Charter, there is at present no dissent from the view that the guarantees include, at bare minimum, the right to be free from torture.

630 F.2d at 882.

75. *See generally* Comment, *supra* note 39, at 91-99.

76. *See* D. Bull, A Growing Problem: Pesticides and the Third World Poor 37 (1982).

the flexibility needed to protect disparate environmental and economic agendas.

International law does, however provide the building blocks for the articulation of a reciprocal duty on each nation not to export products and technology deemed unfit for domestic use. Nations should enact legislation prohibiting hazardous exports found unsafe for domestic use, unless the importing nation waives the exporting country's restrictions and enact its own regulatory standards. Current international efforts will remain insufficient until nations recognize that the issue of hazardous exports is a global problem requiring a global solution worthy of binding reciprocal duties. Until such an international agreement is reached, the U.S. can take the lead by abolishing its own double standard. Congress should prohibit the export of products and technology banned for domestic use unless the importing country assumes the risk by supplanting U.S. standards with its own regulatory program.

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