
The Basel Convention and the International Trade in Hazardous

Wastes

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Introduction

Homeless hazardous wastes are again making headlines, more than ten years after some of the first well-publicized illegal or mismanaged international hazardous waste shipments.¹ In late 1998, 3000 tonnes of mercury-contaminated industrial waste packed in plastic bags was found in an open dump near Sihanoukville, Cambodia. The waste, labelled on import documents from a Taiwanese petrochemical company as ‘cement cake’, was subsequently implicated in local rioting and the deaths of at least two people. It was returned to Taiwan. Further attempts to send the waste to the USA and France also failed, although 32 containers of the crushed, used barrels were eventually dispatched to the Netherlands for incineration.² In early 2000 the Japanese government took back 122 containers of hospital wastes illegally exported to the Philippines as ‘waste paper for recycling’.³ And, beginning in March 2000, a shipment of polychlorinated biphenyl (PCB) contaminated waste from a US military base in Japan was rejected by both the USA and Canada, only to be sent back to Japan and then on to tiny Wake Island in the Pacific to await an uncertain future.⁴

These cases have again focused attention on the problem of controlling transboundary movements of hazardous waste. The key international agreement regulating this issue—the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal—celebrated its tenth anniversary in December 1999. This article outlines and evaluates the key features, current issues, and future prospects of the Basel Convention and its links with other regional and international agreements.

The Problems with Hazardous Wastes

Wastes, as by-products of industrial or household activity, exist in solid, liquid, and gaseous forms. Hazardous wastes can range from materials contaminated with dioxins and heavy metals, such as mercury, cadmium, or lead, to organic wastes. The waste may take many forms, from barrels of liquid waste to sludge, old computer parts, used

batteries, or incinerator ash. Industry and mining are the main sources of hazardous wastes in industrialized countries, though small-scale industry, hospitals, military establishments, transport services, and small workshops all contribute to the generation of large and diverse quantities of hazardous waste in both the industrialized and developing worlds.

Improper handling and disposal of hazardous wastes can affect human health and the environment through leakage of toxins into groundwater, soil, waterways, and the atmosphere. Environmental and health effects can be immediate—such as on-site human exposure to toxic chemicals in the waste—or long-term—contaminated waste can leach into groundwater or soil and then into the food chain. Damage caused by hazardous wastes also takes an economic toll, and cleaning up contaminated sites can be costly for local authorities, particularly if they are located in poor communities.⁵ In the absence of adequate safeguards, recycling and recovery operations can result in greater dangers on account of the higher level of worker exposure and handling.

While exact figures regarding the amounts of hazardous waste generated internationally are quite difficult to specify, some information does exist.⁶ The United Nations Environment Programme (UNEP) estimates total annual international generation of hazardous wastes to be between 300 and 500 million tonnes, with OECD countries accounting for 80 to 90 per cent of this quantity. But in some of the rapidly developing countries of South-East Asia the technical and regulatory structures required for proper hazardous-waste management have not kept pace with industrialization. Thailand, for example, generated approximately 1.9 million tonnes of hazardous waste in 1990—a figure that is expected to quadruple by 2001.⁷ These figures, however, must be treated with care as countries use different definitions of ‘hazardous waste’.⁸

It is even more difficult to obtain accurate information regarding the exact scale and direction of flows of international hazardous-waste transfers. In addition to varying definitions of ‘hazardous waste’, there are differences in the reporting systems for exports and imports in vari-

ous countries, and often there is simply a failure or an inability to provide data about waste imports and exports, hazardous or otherwise. It is generally accepted that about 10 per cent of generated hazardous waste is shipped across international boundaries and that the majority of this is traded between OECD countries.⁹

The main causes of the international, and especially the North–South, waste trade are cheaper disposal costs in the South and opposition in the North to new hazardous waste disposal facilities. For instance, in the late 1980s the average disposal cost for one tonne of hazardous waste in Africa was between \$US2.50 and \$US50, while in the OECD it ranged from \$US100 to \$US2000. Another reason for international transfers of hazardous waste is their potential value as secondary raw materials to be recovered, reused, or recycled. As Table 1 shows, the percentage of exported OECD waste destined for final disposal decreased from 53 to 22 per cent between 1990 and 1995, while the share destined for recycling or recovery increased from 46 to 78 per cent over the same period.

The International Response: the Basel Convention

Following some of the high-profile cases of hazardous-waste dumping in developing countries, and UNEP's creation in the mid-1980s of voluntary guidelines for the management of hazardous wastes, the Basel Convention was

negotiated between 1987 and 1989.¹⁰ In general, many developing countries advocated a North–South ban on hazardous-waste transfers, while some OECD countries preferred a regulatory system based on notification and consent. The Convention initially chose regulation over prohibition when it was signed in March 1989. The objectives of the Basel Convention are to minimize the generation of hazardous wastes and to control and reduce their transboundary movements so as to protect human health and the environment. To achieve these objectives, the Convention contains several general obligations to prohibit waste exports to Antarctica, to countries that have banned such imports as a national policy, and to non-parties (unless those transactions are subject to an agreement that is as stringent as the Basel Convention). Hazardous waste transfers that *are* permitted under the Basel regime are subject to the mechanism of prior notification and consent, which requires parties not to export hazardous wastes to another party unless the 'competent authority' in the importing state has been properly informed and has consented to the trade. As of April 2001, the Convention had 146 parties.

Those developing countries, particularly from Africa, and environmental non-governmental organizations (NGOs) such as Greenpeace that desired a North–South ban on hazardous-waste transfers did not end their efforts with the signing of the Basel Convention. Many saw the transfer of hazardous wastes to poorer countries as a con-

Table 1. OECD Exports of Hazardous Wastes, 1990–95

	1990	1991	1992	1993	1994 ¹	1995
Total hazardous waste exports from OECD countries (tonnes) ²	1,801,108	1,941,317	1,425,962	1,396,470	1,299,315	No precise data ³
Average share going to final disposal (%) ⁴	53.1	51.3	49.8	41.6	32	22
Average share going to recovery (%)	46.9	48.7	50.2	58.4	68	78

Notes:

1. Figure based on data from only 18 countries out of 29.
2. The export data submitted to the OECD by member countries is *supposed* to include exports to other OECD countries as well as to non-OECD countries. However, not all OECD countries submit data regarding exports to non-OECD countries, and so the OECD data is aggregated such that it is not clear what portion consists of exports to other OECD countries (and exported by which countries) and what portion to non-OECD countries.
3. The OECD did not make calculations for amounts on account of the small number of available data (13 of 29 countries) which would not provide representative results.
4. Averages based only on data from those countries where separate figures for recovery and final disposal are available.

Source: OECD (1998), *Trade Measures in the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* (Paris: OECD, COM/ENV/TD(97)41/FINAL); OECD (1998), *Transfrontier Movements of Hazardous Wastes, 1994–95 Statistics* (Paris: OECD, ENV/EPOC/WMP/WD(98)6), 7–9 (draft only).

tinuing form of colonial exploitation. Indeed, the North–South aspect of the negotiations has been a central political dynamic in the Basel process from the very beginning. Because the original Convention did not prohibit export to developing countries, those countries still had major concerns regarding illegal traffic, economically motivated waste dumping, and ‘sham’ and ‘dirty’ recycling.¹¹ But while some developing countries felt that they did not have the capacity to enforce national or regional import bans, and that an export ban placing the responsibility on industrialized countries was more appropriate, other developing countries with waste recycling industries—such as India, the Philippines, and Brazil—have been increasingly less supportive of blanket trade bans. On the other hand, most OECD countries—the USA, Canada, Australia, Japan, the UK, and Germany in particular—and international business groups, such as the International Chamber of Commerce (ICC) and the Bureau for International Recycling (BIR), continued to prefer a notification and consent system.

Nevertheless, once the Convention entered into force in May 1992, the parties took various decisions about restricting North–South trade at their 1992 and 1994 conferences, culminating in 1995 with Decision III/1. This decision will amend the Convention to ban hazardous-waste exports for final disposal and recycling from what are known as Annex VII countries (members of the OECD, the European Community, and Liechtenstein) to non-Annex VII countries—often referred to as the ‘Basel ban’. Environmentalists have characterized this decision as the most significant environmental achievement since the Rio Earth Summit in 1992. But it has also been highly contentious, particularly among segments of the recycling and metal scrap industries. The Amendment, which requires 62 ratifications to enter into force, has by April 2001 been

ratified by only 24 parties (23 countries and the European Community).

The fourth Conference of the Parties (COP-4), held in Malaysia in February 1998, elaborated Basel’s definition of hazardous waste in order more practically to implement the Convention and the ban. Two new annexes of wastes were adopted, which further delineate which wastes are hazardous and which are not. Annex VIII comprises wastes likely to be hazardous under the Convention, and Annex IX is a list of wastes not likely to be hazardous under the Convention. A third list of wastes—List C—is a working list of wastes awaiting classification. The Technical Working Group (TWG), a subsidiary body of the COP, continues to refine these lists, including adding and removing specific wastes.

COP-4 also decided that the membership of Annex VII should remain unchanged until the Ban Amendment enters into force. Some countries had objected to an OECD to non-OECD ban as being an arbitrary distinction based on a country’s membership in an economic organization and because non-OECD countries with environmentally sound and economically viable recycling operations would be penalized by having their access to waste materials from OECD countries cut off, an objection that continues in regard to the current composition of Annex VII. However, there is as yet no consensus to change the annex or any mechanism to do so.

Recently, in December 1999, the Convention celebrated its tenth anniversary in Basel. In addition to the usual high-level speeches recalling the initial negotiations ten years before, COP-5 had two key outcomes. The question of a protocol for liability and compensation was first discussed at the negotiations leading to the Basel Convention but was left for later resolution. After more than six years of negotiation, the Protocol on Liability and Compensation for

Table 2. Hazardous and Non-hazardous Wastes in the Basel Convention

Annex	Status	Some examples
VIII	Characterized as hazardous under Article 1(i)(a) of the Basel Convention	<ul style="list-style-type: none"> - Metal wastes and waste consisting of alloys of arsenic, cadmium, lead, and mercury; - Waste lead-acid batteries, whole or crushed; - Waste electrical and electronic assemblies or scrap; - Ashes from the incineration of insulated copper wire
IX	Not characterized as hazardous under the Convention (unless they contain hazardous materials)	<ul style="list-style-type: none"> - Iron and steel scrap; - Metal-bearing wastes arising from melting, smelting and refining of metals; - Other ceramic, solid plastic, paper and textile wastes
List C	An informal working list of wastes awaiting classification	<ul style="list-style-type: none"> - Polyvinyl chloride (PVC) waste; - PVC-coated cables; - Residues arising from industrial waste-disposal operations

Source: UNEP/CHW.4/35, 18 March 1998.

Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal was at last adopted at COP-5 and, as of April 2001, signed by 13 countries.¹² The Protocol contains both strict and fault-based liability provisions and sets out minimum compensation levels for strict liability, depending on the size of the shipment (e.g., \$US1.38 million for up to 5 tonnes, up to a maximum of \$US41.4 million for any one incident).¹³

The final result was very much a compromise failing to please everyone, but one that met the political ambition of completing the Protocol at the tenth anniversary meeting. Developing countries, particularly from Africa, who had strongly supported the development of the Protocol complained that the resulting financial mechanism was weak and didn't provide for adequate compensation, whereas some industrialized countries—worried about creating a broad and costly instrument—agreed with Australia that it had 'serious deficiencies'.¹⁴ And while some environmental groups, on the one hand, criticized the Protocol as redundant, loophole ridden, and counter-productive to the aims of the Basel Convention, one industry association expressed 'serious reservations' about its 'unrealistically high' financial limits for strict liability.¹⁵ Whatever the position taken on the final outcome, the Protocol is the first of its kind in a multilateral environmental agreement (MEA) and as such will be regarded as a precedent for other areas—such as biosafety and persistent organic pollutants (POPs)—where some actors advocate similar agreements.

The second key outcome from COP-5 was a ministerial Basel Declaration and a decision outlining the focus for the Convention's second decade: the practical implementation of environmentally sound management of hazardous wastes with an emphasis on capacity building and waste minimization. The agreed areas of focus are:

- 1) the prevention, minimization, recycling, recovery, and disposal of hazardous and other wastes subject to the Basel Convention;
- 2) the active promotion and use of cleaner technologies and production;
- 3) the further reduction of transboundary movements of hazardous and other wastes,
- 4) the prevention and monitoring of illegal traffic;
- 5) the improvement of institutional and technical capacity building, as well as the development and transfer of environmentally sound technologies, especially for developing countries and countries with economies in transition;
- 6) the further development of regional and subregional centres for training and technology transfer;

- 7) enhanced information exchange, education, and public awareness in all sectors of society;
- 8) greater co-operation at all levels between countries, public authorities, international organizations, industry, NGOs, and academia; and
- 9) the development of mechanisms for assuring implementation of the Convention (and amendments) and monitoring compliance.¹⁶

Parties to the Convention have now begun discussing how to *implement* the Basel Declaration and Decision, with the subsidiary bodies of the Convention beginning to prioritize their activities accordingly for the next ten years. The Secretariat, for example, has outlined possible activities that it will carry out—including the development of pilot projects, policy tools, training programmes, and mechanisms to enhance partnerships—all with the objective of promoting the environmentally sound management of hazardous wastes.¹⁷

National Implementation and International Linkages

This section discusses questions of implementation and monitoring and linkages with other regional and international agreements.

One difficulty in assessing implementation of the Convention at the national level is that the quality of the submitted data has been uneven, although the Secretariat has noted a 'constant improvement of reporting by Parties'.¹⁸ Parties are required to report and transmit information regarding national definitions of hazardous waste, regulations governing the import and export of such wastes, and information regarding the generation and transboundary movement of hazardous wastes (Article 13), and the Secretariat collects and conveys this information to all parties (Article 16). But, as of November 1999, only 31 parties had submitted information in accordance with articles 13 and 16 for 1998, and as of September 1999 62 parties had submitted information for 1997.¹⁹

The record of designating competent authorities—responsible for receiving and responding to notifications for import/export—and focal points—responsible for receiving and transmitting other information relevant to implementation of the Convention—is much better, however. By August 1999, 105 countries had designated competent authorities and 116 had designated focal points.²⁰ One element that may improve the level of knowledge about national implementation, and assist countries with that task, is the establishment, funding, and functioning of the Convention's Regional Centres for Training and Technology Transfer. As of September 1999, 12 regional or

subregional centres have been established, in Uruguay, Argentina, El Salvador, Trinidad and Tobago, Nigeria, Egypt, South Africa, Senegal, the Slovak Republic, the Russian Federation, China, and Indonesia.²¹ The centres, while still requiring financial self-sufficiency, hold workshops and training courses, and in the long term may prove highly influential in improving implementation of the Convention.

The Convention's provisions for monitoring compliance with commitments and the ability of the COP to take any enforcement measures against parties deemed in non-compliance are, however, quite limited. In fact, the Convention relies more on the principle of state responsibility than a special implementation and compliance control procedure. In addition to the information provisions of articles 13 and 16, parties are required to inform the Secretariat if they 'have reason to believe' that another party is in non-compliance (Article 19), but it is generally felt that this does not amount to 'more than a rudimentary system of compliance', and negotiations for a formal mechanism or committee have been ongoing.²² There appears to be general agreement that, if such a mechanism is established, it should be non-confrontational, cost-effective, simple, transparent, and aimed at assisting parties in fulfilling their obligations under the Convention.²³ A draft decision establishing a mechanism is to be presented to COP-6 in 2002.

The Basel Convention also has clear links with *regional* hazardous-waste regimes that were established in the 1990s (some in response to the initial failure of the Convention to ban exports from North to South), in particular the 1991 Bamako Convention, which prohibits the import of hazardous wastes into Africa (though it controls trade among parties by notification and consent), and the 1995 Waigani Convention, which prohibits the import of hazardous wastes into Pacific Island developing countries.²⁴ As in the case with the regional centres, these regional agreements can assist national implementation of environmentally sound waste management strategies. Moreover, the Basel Secretariat has been collaborating with the secretariats of these agreements (the Organization for African Unity and the South Pacific Regional Environment Programme) and sharing knowledge about institutional procedures and functions.²⁵

Additionally, the Convention interacts with other *international* agreements that are already established or are under negotiation, particularly in the field of chemicals management.²⁶ Both the 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the recent 2001 Stockholm Convention on Persistent Organic Pollutants (POPs) have strong ties with the Basel

Convention. The executive director of UNEP, Klaus Töpfer, has said that 'links between the POPs treaty being negotiated and the Basel Convention are key to the evolving global foundation of safeguards [against toxic risks].'²⁷ That is, attempts are made to co-ordinate the work of these different agreements to ensure coherency and avoid duplication, while each also complements the other by addressing different life-cycle aspects of a hazardous chemical, such as its production, use, trade, or disposal.

For example, some substances—such as PCBs—are covered by all three instruments. The Basel Convention has created technical guidelines for the management of waste PCBs, the trade in PCBs is regulated by the Rotterdam Convention, and PCBs are controlled—with the aim of their elimination—in the Stockholm Convention. The Stockholm Convention additionally stipulates that POPs wastes should not be disposed of using recovery or recycling operations.²⁸

Lastly, the ban on hazardous-waste exports for *recycling* in Decision III/1 has generated a major debate regarding the Basel Convention's compatibility with the World Trade Organization (WTO). The trade in metal scrap and metal-bearing residues, used in some industries as 'secondary materials', had an average value of \$37.2 billion per year (in constant 1985 \$US) between 1980 and 1993, with the export of metal scrap from the OECD to developing countries totaling \$2.9 billion in 1993.²⁹ But because trade statistics do not distinguish between hazardous and non-hazardous metal scrap, it is difficult to know the extent of *hazardous* material transfers to developing countries that this might represent. However, at least one study, on the case of non-ferrous metal-bearing waste—containing, for example, lead, copper, or zinc—has concluded that, while trade in some particular wastes (such as lead-acid batteries listed in Annex VIII) may be adversely affected, the majority of non-ferrous metal waste with secondary value will not be subject to the Basel ban.³⁰ But looming behind many of these discussions has been the spectre of a challenge to the Basel ban at the WTO.

As part of the wider discussion concerning trade and environment issues, there has been much debate regarding the compatibility of the Basel Convention with the WTO.³¹ The central aim of the WTO, of course, is to liberalize trade in goods and services between its contracting parties, so a key question to be answered in this context is whether or not hazardous wastes are in fact 'products' or 'goods' that fall under the jurisdiction of the WTO. If wastes are not products, then there cannot be a conflict between the WTO and the Basel Convention. The problem is that there is no precise definition of 'product' in the context of the WTO, and the question of whether or not wastes are 'products' has yet to be answered conclusively.³²

If, for example, a complaint against the Basel ban—if it enters into force—were brought to the WTO, the panel would have to determine if the export ban could be justified under GATT's Article XX on 'general exemptions'. Unless the ban were to qualify for an Article XX exemption for reasons 'necessary to protect human, animal or plant life and health', it seems likely from a legal standpoint that the ban would be found incompatible with the WTO, especially if the complainant were a non-party to the Basel Convention.³⁵ But, from a political standpoint, there are strong pressures not to challenge the provisions of MEAs in the WTO (or, at least not to be the *first* to do so), as this would undermine the current presumption that there is not supposed to be any hierarchy between international environmental law and international trade law. Moreover, since trade restrictive measures play an important role in numerous MEAs, such a challenge could set an undesirable precedent. It is also unlikely, given the increasing scope of the WTO, the broad nature of many environmental problems, and the limited number of international policy instruments available to deal with them (of which trade regulation is one), that negotiators could perpetually design MEAs that had no trade implications whatsoever.

Impact of the Convention

Clear indicators of the effectiveness of the Basel Convention remain scarce because of the lack of consistent, comparable, and robust data regarding total volumes of hazardous wastes that are traded as well as quantitative and qualitative changes in domestic waste-management strategies.³⁴ Nevertheless, it can be asserted that the establishment of the Convention has been central to the reduction of some of the most harmful transboundary movements of toxic wastes for disposal from industrialized countries to developing countries. There is now international consensus that rich countries should not dump hazardous wastes in poorer countries, as exemplified by the ban on final disposal in Decision III/1. By placing a spotlight on the practice of exporting hazardous wastes to poor countries, the Basel Convention has helped put a great deal of political pressure on exporting countries to start phasing out this practice. In this way, the creation of an agreement that is helping to change the norms of international practice is perhaps as effective as the actual trade restrictions themselves.

With the increasing stringency of the trade restrictions, however, there are concerns that one effect of the Convention will be to increase the underground trade in hazardous wastes. Developing countries in particular have consistently expressed concerns about illegal traffic because

they often lack the resources and ability to monitor movements and are most vulnerable to health and environment problems resulting from illegal shipments. Illegal traffic can take many forms, from falsification of documents to large-scale organized activities.³⁵ In terms of the Basel Convention (Article 9), illegal traffic is any transboundary movement of hazardous wastes carried out in contravention of the obligations placed on states. Yet there is substantial difficulty in determining the frequency and amounts of hazardous wastes that are transferred illegally. The quality of information available to the Convention Secretariat is dependent mostly on reports from parties—who may or may not be able to detect and report cases of illegal traffic—and therefore the state of knowledge is sketchy at best. For example, 16 cases of confirmed illegal traffic were reported to the Secretariat in November 1998 and seven more unconfirmed cases in March 1999.³⁶ Hazardous wastes are often mislabeled as being 'products', such as chemical wastes being described as fuel oil. Once illegally transferred, many of them are then simply dumped, stored, or recycled improperly, despite the fact that they may have been listed on customs and transfrontier movement forms as being destined for 'further use' (that is, *if* the appropriate forms were even completed). According to a recent report from the UN Commission on Human Rights' Special Rapporteur for hazardous wastes, the port of Rotterdam alone detects about 500 unlawful attempts to export dangerous waste products every year, with many of the planned shipments destined for developing countries.³⁷

There is now a 'Form for Confirmed Cases of Illegal Traffic' that is to be used officially to report cases of illegal movements to the Basel Secretariat, which has also initiated co-operation with INTERPOL to exchange information on cases of illegal traffic and train police and customs officers in the identification of illegal hazardous-waste movements. However, many countries have expressed their desire for a more comprehensive set of activities that would monitor and prevent illegal traffic.³⁸ Thus, draft 'guidance elements for the detection, prevention and control of illegal traffic in hazardous wastes' have been elaborated and are to be presented for approval to COP-6 in 2002. The guidance elements note that information on detection, monitoring, intelligence, prevention, management of alleged and confirmed cases, international co-operation, and domestic capacity building should be included in any procedure that is developed by the Convention to deal with illegal traffic.³⁹

The reduction of hazardous-waste generation and the establishment of cleaner production processes is perhaps the ultimate goal of the Basel Convention. Prevention is certainly better than cure where hazardous wastes are concerned. Cleaner production has been described as the ap-

plication of an integrated, preventive environmental strategy to processes, products, and services to increase eco-efficiency and reduce risks to human health and the environment.⁴⁰ Cleaner production techniques include conserving raw materials and energy, eliminating toxic raw materials, and reducing the quantity and toxicity of all emissions and wastes.

As it currently stands, however, the Convention's ability to pursue this goal is rather limited. By 1994, only 13 parties had transmitted any information on measures taken to reduce hazardous-waste generation, and in 1995 the Secretariat noted that information submitted by parties regarding efforts to reduce transboundary movements of hazardous wastes generally did not identify waste minimization as a method.⁴¹ Reasons for not introducing cleaner production methods, particularly in developing countries, include lack of information about a technology, high capital costs, lack of trained personnel, and technological limitations in regard to 'cleaning' a given industrial process. The TWG has been working on criteria for selecting hazardous-waste streams susceptible to cleaner production methods, but this has generally had to take a back seat to the work on hazard characterization and classification (assigning wastes to Annex VIII or Annex IX) and the creation of technical guidelines.⁴²

More recently, the Secretariat has been pursuing closer collaboration with UNEP's Division of Technology, Industry and Economics (DTIE) to strengthen the links between Basel's regional centres—which have 'the encouragement and facilitation of the use of cleaner technologies' as part of their mandate—and DTIE's cleaner production program.⁴³ At the end of the day, however, substantially reducing hazardous-waste generation and moving towards cleaner production is unlikely to be achieved other than in the medium to long term. Moreover, such a sea-change in industrial practices is most effectively initiated by industry itself, with the participation of national regulators, than by an international agreement alone.

Further Progress: The Basel Convention in the Twenty-first Century

The Basel Convention has proven to be a dynamic and useful—if sometimes highly controversial—instrument for controlling the international trade in hazardous wastes. But since the original control mechanism of the Convention—the prior notification and consent procedure—did not improve the level of knowledge about the scale and

frequency of the hazardous-waste trade, it encouraged those participants who continued to call for more restrictive measures.⁴⁴ The ban on exports of hazardous waste for disposal that had been sought by some from the outset was developed, and is now more or less universally accepted. However, the question of when and under what conditions hazardous waste should move across borders for purposes of recycling or reuse remains contentious.

A key to the Convention's future is thus the question of whether or not Decision III/1 will be ratified by the required number of parties to enter into force. Those who believe that the Ban Amendment will enter into force cite the acceptance of the lists of hazardous wastes subject to and exempt from the Convention (annexes VIII and IX) at COP-4 as a promising sign that the key debate about the ban—what wastes would be subject to it—has been resolved.⁴⁵ However, entry into force of an amendment that has significant implications for the international trade in recyclable hazardous waste is likely to be a complex process and is not assured.

On the positive side, the development of a mechanism for monitoring implementation and compliance of the Convention—mentioned above—will receive increased support as UNEP begins to take a more integrated approach to issues of implementation, compliance, and enforcement of MEAs. A small office has been established for this purpose in Geneva, and a working group of experts has been convened to develop guidelines on compliance and enforcement, as well as to examine the issues of environmental crime and illegal traffic.⁴⁶

Finally, the Basel Declaration and Decision on environmentally sound management taken at COP-5 appeared under an agenda item appropriately called 'challenges for the next decade'. It marks a first step away from the contentious debates about trade restrictions and North-South divisions that so dominated the Convention's first decade. Two groups in clear opposition for much of the last ten years have both supported the new direction planned for the Convention. Industry—in the form of the Bureau for International Recycling—has expressed 'cautious satisfaction', and environmental NGOs—the Basel Action Network (BAN) and Greenpeace International—have referred to it as an 'important decision' and a 'positive development'.⁴⁷ If supported by political commitment from all actors in the process, this new initiative could move the Basel Convention away from its politically charged past and towards achieving its fundamental goal: reducing the amount of hazardous wastes generated around the world.

Notes and References

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1. These cases include the voyage of the 'toxic waste ship' *Khian Sea* in 1987–8 and the dumping of Italian polychlorinated biphenyls in a farmer's backyard in Koko, Nigeria, in 1988.
2. F. Markus, 'Taiwanese Waste Sent to Europe', *BBC News Online*, 2 March 2000.
3. 'Government Begins Unloading Batch of Waste Returned from Philippines', *Yomiuri Shimbun*, 12 January 2000.
4. J. Coleman, 'US Military Waste Worries Japan', *Associated Press*, 25 April 2000.
5. L. Stroh (1993), 'The Environmental Politics of the International Waste Trade', *Journal of Environment and Development*, 2: 2, 6.
6. See, for example, UNEP (1994), *Environmental Data Report 1993–94* (London: Blackwell); OECD (1997), *Transfrontier Movements of Hazardous Wastes: 1992–93 Statistics* (Paris: OECD); and J. Vallette and H. Spalding (eds.) (1990), *The International Trade in Wastes: A Greenpeace Inventory* (Washington, DC: Greenpeace USA, 5th edn). For a more sceptical argument that hazardous-waste trading is neither as widespread nor as dangerous as is often claimed, see M. Montgomery (1995), 'Reassessing the Waste Trade Crisis: What Do We Really Know?', *Journal of Environment and Development*, 4: 1; for a response, see J. Krueger (1998), 'Prior Informed Consent and the Basel Convention: The Hazards of What Isn't Known', *Journal of Environment and Development*, 7: 2.
7. R. Repetto (1994), *Trade and Sustainable Development* (Geneva: UNEP Environment and Trade Series #1), 4. However, the economic downturn in South-East Asian economies during 1997–8 may result in less hazardous waste generation by 2001 than was expected in 1990.
8. An underlying problem for any international policy on hazardous waste in general, and for the debates within the Basel Convention in particular, is that there is still no generally recognized, detailed, and practical definition of 'hazardous waste'. For discussion, see J. Krueger (1999), *International Trade and the Basel Convention* (London: Earthscan Publications), 99.
9. UNEP/Secretariat of the Basel Convention (1997), *The Basel Convention: A Global Solution for Controlling Hazardous Wastes* (New York/Geneva: United Nations), 1. The OECD estimates that about 80 per cent of the (legal) trade occurs between OECD countries, with 10 to 15 per cent going to Eastern Europe and the remainder to developing countries. See also K. O'Neill (2000), *Waste Trading Among Rich Nations* (Cambridge, MA: MIT Press).
10. Further details on the Convention are found in the Agreements section in this *Yearbook*.
11. Sham recycling is the listing of a waste as being destined for recycling when in fact it is simply dumped unsafely. Many of the instances of hazardous-waste dumping take place under the pretext of recycling. Dirty recycling is the recovery of materials from hazardous wastes in a manner that is dangerous to the environment or the health of the people involved in the recycling operation, such as extracting lead from used lead-acid batteries without appropriate protection.
12. The Protocol remained open for signature until 10 December 2000.
13. D. Pruzin (1999), 'Agreement on Liability Protocol Reached at Basel Conference of Parties', *International Environment Reporter*, 22: 25, 973.
14. This had largely to do with the high minimum compensation levels and the lack of clarity about application of the Protocol. See the country statements in the Report of the Fifth Meeting of the Conference of the Parties to the Basel Convention, UNEP/CHW.5/29 (10 December 1999), paras. 83–89.
15. Basel Action Network (1999), *BAN Report and Analysis of the Fifth Conference of Parties to the Basel Convention*, available at <www.ban.org>; and 'Basel Convention COP-5: BIR Recognises Potential Turning Point', *BIR Newsletter*, autumn/winter 1999, 6.
16. Decision V/33 and Annex II in the Report of the Fifth Meeting of the Conference of the Parties to the Basel Convention, UNEP/CHW.5/29 (10 December 1999), 60–69, 85–87. Also available at <www.basel.int/COP5/ministerfinal.htm>.
17. See 'Initiation of Activities to Implement the Basel Declaration on Environmentally Sound Management', UNEP/CHW/LWG/1/6/Add.2 (20 March 2000).
18. UNEP/CHW/TWG/16/9 (7 March 2000), para. 2.
19. UNEP/CHW.5/INF/13 (25 November 1999); and 'Managing Hazardous Waste' (the newsletter of the Basel Secretariat), September 1999, 4.
20. UNEP/CHW.5/15 (16 September 1999).
21. See 'The Current Status of Basel Regional Centres' (September 1999), available at <www.basel.int/centers/regcentrestatus99.html>.
22. See 'Monitoring Implementation and Compliance with the Basel Convention', UNEP/CHW.3/Inf.5 (14 June 1995).
23. See 'Report of the Legal Working Group', UNEP/CHW/LWG/1/L.1 (7 April 2000), Annex IV.
24. The Bamako Convention entered into force in 1998, but the Waigani Convention is not yet in force—see the Agreements section in this *Yearbook* for more detail.
25. UNEP/CHW.5/8 (6 October 1999), 15.
26. The Convention also has links with other treaties dealing with wastes, such as the London Dumping Convention (see entry in the Agreements section in this *Yearbook*). For discussion on this point, see K. Kummer (1995), *International Management of Hazardous Wastes* (Oxford: Clarendon Press), 182–96.
27. K. Töpfer (1999), 'Editorial', *Our Planet*, 10: 4, 3.
28. Article 6 of the Stockholm Convention.
29. H. Alter (1997), 'Industrial Recycling and the Basel Convention', *Resources, Conservation and Recycling*, 19: 1, 29–53; M. Guevara and M. Hart (1996), *Trade Policy Implications of the Basel Convention Export Ban on Recyclables from Developed to Developing Countries* (Ottawa: Report for the International Council on Metals and the Environment), 2.
30. N. Johnstone (1998), 'The Implications of the Basel Convention for Developing Countries: The Case of Trade in Non-ferrous Metal-bearing Waste', *Resources, Conservation and Recycling*, 23: 1–2, 1–28.
31. For a recent review of the trade and environment debate, see G. P. Sampson and W. B. Chambers (eds.) (1999), *Trade, Environment and the Millennium* (Tokyo: United Nations University Press).
32. K. Kummer (1994), *Transboundary Movements of Hazardous Wastes at the Interface of Environment and Trade* (Geneva: UNEP Environment and Trade Series #7), 72; D. Wirth (1996), 'International Trade in Wastes: Trade Implications of the Recent Amendment to the Basel Convention Banning North–South Trade in Hazardous Wastes', Paper presented to workshop on Trade and Environment: Challenges for 1996, New York (January), 42.
33. For a legal perspective, see P. Hagen and R. Housman (1995), 'The Basel Convention', in *The Use of Trade Measures in Select Multilateral Environmental Agreements* (Geneva: UNEP Environment and Trade Series #10).

34. This problem is emphasized when compared to the significant amount of data available regarding the effectiveness of the Montreal Protocol. See S. Vaughan and A. Dehlavi (1998), *Policy Effectiveness and Multilateral Environmental Agreements* (Geneva: UNEP Environment and Trade Series #17), 63.
35. See WTO/CTE (1998), *Communication from the Secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* (Geneva: WT/CTE/W/90, 20 July).
36. UNEP/CHW/WG.4/LSG/1/2 and UNEP/CHW/WG.4/LSG/2/4. Many more cases of illegal traffic—both anecdotal and confirmed—are simply never reported to the Basel Secretariat and thus are never reflected in global statistics on the problem.
37. UN Economic and Social Council, 'Adverse Effects of the Illicit Movement and Dumping of Toxic and Dangerous Products and Wastes on the Enjoyment of Human Rights', E/CN.4/2000/50/Add.1 (20 March 2000), para. 23.
38. See UNEP/CHW.4/14. The draft form for reporting cases of illegal traffic is on p. 6.
39. UNEP/CHW/WG.4/LSG/1/4, Annex 3.
40. A comprehensive discussion about cleaner production is beyond the scope of this paper; for more information, see the UNEP Cleaner Production Programme website at <www.unepie.org/Cp2/home.html>.
41. See Vaughan and Dehlavi (1998), *Policy Effectiveness and Multilateral Environmental Agreements*, 72.
42. NGOs have recently turned their attention to the export of ships for 'breaking' (dismantling) at shipyards in India and other Asian countries—a classic example of 'dirty recycling', where steel and asbestos in the ships are removed by workers without safety equipment. This issue is now formally on the Convention's agenda and the TWG is co-operating with the International Maritime Organization (IMO) on creating guidelines for the environmentally sound dismantling of ships; see UNEP/CHW.5/21 (11 August 1999).
43. See UNEP/CHW.5/20 (14 September 1999).
44. Basel's notification and consent procedure did not improve knowledge about the hazardous waste trade because, *inter alia*, notifications for hazardous waste transfers (and responses to those notifications) did not flow through the Secretariat and so no accurate picture of the situation was developed; see Krueger (1998), 'Prior Informed Consent and the Basel Convention: The Hazards of What Isn't Known', 134.
45. 'Toxic Waste Convention with 117 Nations Hailed a Success', *Associated Press*, 27 February 1998.
46. See UNEP, 'Report of the Working Group of Experts on Compliance and Enforcement of Environmental Conventions—Preparatory Session', UNEP/EC/WG.1/5 (16 December 1999), available at <www.unep.ch>; and 'Implementation and Compliance in a Broader Context', UNEP/CHW/LWG/1/INF/2 (7 March 2000).
47. 'Basel Convention COP-5: BIR Recognises Potential Turning Point', *BIR Newsletter*, autumn/winter 1999, 6; and BAN/Greenpeace International Press Release, 'Toxic Waste Treaty Declares Next Decade: No Time for Waste', 10 December 1999; D. Pruzin, 'Basel Parties Call for Minimizing Waste, Improving Capacity-Building for Handling', *International Environment Reporter*, 22: 25 (1999), 975.

