



Hazardous Waste Disposal

By Kate O'Neill, Belfer Center, Harvard University

A re-examination of U.S. foreign policy toward hazardous waste management issues is timely for three reasons. First, the Clinton administration has recently announced its intention to ratify the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal, the main multilateral agreement governing the hazardous waste trade from developed to less developed countries. The U.S. is practically the last industrialized country to take this step. Second, repatriation requirements for hazardous wastes generated by U.S. firms operating in Mexico's border industrialization zone (maquiladoras) are due to expire in the year 2000. Third, recent reports show that the U.S. remains engaged in exporting wastes abroad and that deficiencies still exist in the vital task of data gathering and monitoring in this controversial area of international environmental policy.

Early on, the Basel Convention came under fierce attack from NGOs and less developed countries for being too weak: for example, by allowing much North-to-South waste exportation to continue. In 1994, signatories voluntarily agreed to ban all exports of wastes from OECD members to non-members for final disposal and recycling purposes. Yet, controversies remain. At the fourth meeting of the parties, in Malaysia in February 1998, delegates made only limited progress on compiling comprehensive lists of hazardous wastes. They disagreed on which countries should be allowed to belong to Annex VII (the group allowed to continue importing wastes: longstanding OECD members and Liechtenstein) and on the extent and availability of bilateral agreements between Annex VII and non-Annex VII countries to continue trading in hazardous wastes. These disagreements have yet to be resolved and could lead to the Basel Convention being challenged as a trade restriction under World Trade Organization rules. Furthermore, the ban amendment has to date been ratified by less than a quarter of the parties required for implementation. It is likely to be a long time before sufficient ratification occurs.

North American border waste management issues have a long history. Waste exchanges between the U.S. and Canada are often justified by geographic proximity and are rarely controversial, which is not so with respect to U.S.-Mexican relations. Under the 1965 Mexican Border Industrialization Plan, U.S. firms can establish assembly plants—maquiladoras—across the border, profit from lower labor and other costs, and reimport the final product while only paying tax on the value added to the product. Any hazardous wastes generated by U.S. firms operating in Mexico are required to be transported back to the U.S. for safe disposal. However, some estimate that only 30% of wastes are actually returned across the border; the fate of the rest is unrecorded.

In 1998, the Environmental Protection Agency (EPA) listed 1,910 maquiladoras in the border zone, and between 1991 and 1996 recorded an average of 8,200 tons of hazardous wastes per year shipped to the U.S. from Mexico. Border industrialization has spawned a heavy environmental impact. Mexico simply does not have the infrastructure needed to safely dispose of hazardous wastes generated by the companies it hosts, leading to illegal dumping and attendant severe effects on local inhabitants.

Key Points

- U.S. policy toward hazardous waste issues needs to be revised in the light of international regulatory change, the likely worsening of the maquiladora situation in Mexico after 2000, and newly released data on U.S. waste exports.
- The waste trade is a significant international problem, yet international efforts to introduce a ban on North-South waste trading remain frustrated.
- Wastes generated by U.S. firms in the U.S.-Mexican border zone have frequently been mismanaged, leading to serious pollution and political problems.

Hazardous waste management is a global issue. The international waste trade emerged as a problem for the international community in the late 1970s and early 1980s. High disposal costs and more stringent regulations in some countries, lower transportation costs, and the rise of freer trade facilitated shipments of hazardous wastes across national borders for disposal elsewhere. Available data on waste transfers are rarely exact. It is, however, commonly accepted that about 10% of the 300-500 million tons of hazardous wastes generated annually worldwide is shipped abroad. Of this, roughly 80% is shipped between rich industrialized nations, members of the Organization for Economic Cooperation and Development (OECD).

Far more controversially, significant quantities of wastes from the world's richer nations have been shipped to countries in Africa, Asia, and the Caribbean and, increasingly, to East Central Europe. Several well-publicized cases of waste ships in the late 1980s—such as the *Khian Sea*, which left nearly 4,000 tons of toxic ash from Philadelphia on the beaches of Haiti—led the United Nations Environmental Programme (UNEP) to sponsor the Basel Convention, signed in 1989 and instituted in May 1992.

The U.S. is an active participant in the legal waste trade: a report issued in October 1998 by the Commission for Environmental Cooperation (CEC) states that in 1995, a total of 75,231,005 kilograms of toxic chemicals in waste form were transferred from the U.S. to other countries. Over half of this went to Canada for recycling. Significant quantities were also shipped from and to Western Europe, to East and Southeast Asia, and to Mexico (26,689,931 kilograms).

There is also substantial evidence that U.S. firms and individual entrepreneurs illegally export wastes: as well as the Khian Sea case, at least one American citizen has recently been arrested and sentenced abroad—in China—for waste smuggling. Both U.S. firms and military bases abroad have come under fire for not adequately disposing of the wastes they generate. Oil companies such as Texaco and Chevron have been asked to clean up their production sites in Ecuador and Nigeria. U.S. military bases in the Philippines and Panama house stockpiles of extremely toxic wastes, and ship scrapping practices in India have brought issues of worker protection to the fore.

By not ratifying the Basel Convention, the U.S. lags behind most other industrialized countries, and this foot-dragging is seen by some to be supporting waste dumping on poorer nations. Washington's procrastination could affect its legitimacy in other multilateral negotiations. Furthermore, as a nonparty to the Basel Convention, U.S. firms will be excluded from trading wastes and recyclables with many of its current partners if the full ban is ratified by 75% of the parties to the ban amendment. Environmental groups, notably the Seattle-based Basel Action Network, oppose U.S. ratification of the 1989 convention alone, arguing that selective ratification will give anti-Basel groups within the U.S. the foothold they need to undermine the waste trade ban. Basel ratification will pose some problems for the EPA, because the definition of trade-restricted hazardous wastes under Basel is wider than that currently existing in the U.S. Thus, enabling legislation will be needed to accommodate this discrepancy. Industry groups already oppose broadening hazardous waste lists. They have also exhibited unease as to how liability for accidents and cleanup will be determined—yet another area of uncertainty in convention negotiations.

In the Western Hemisphere, foreign policies and environmental politics have been irrevocably altered by the provisions of the North American Free Trade Agreement. Following NAFTA, the number of U.S. firms locating in Mexico has increased, despite opposition from U.S. labor and environmental groups. Furthermore, the waste return requirement is due to end under NAFTA rules in the year 2000. Ground and water pollution arising from this problem have already caused much well-documented harm.

Currently, however, it is obvious that little has been done to boost waste management capacities in Mexico, and it is likely, therefore, that the situation will only worsen subsequent to 2000. At the moment, Mexico has only two treatment and disposal facilities, and plans to construct more are meeting with organized opposition from local people concerned about the environmental impact of the new facilities. The network of agencies for dealing with border environmental issues is quite large and complex; issues often slip through cracks when no one agency has a direct mandate for handling them. For example, the Border Environment Cooperation Commission (BECC) is responsible for sponsoring local environmental infrastructure projects, yet it has no direct responsibility for hazardous waste management (despite popular concern). Instead, hazardous waste management falls under the jurisdiction of Border XXI—an organization jointly operated by the U.S. and Mexican EPAs and perceived as more distant from local concerns.

More positively, efforts to collect data on and monitor the border waste situation have received serious commitment. Cooperative organizations—HAZTRAKS (a bilateral computerized tracking system), the Border XXI Program, and the Commission on Environmental Cooperation, based in Montreal—have made significant steps in compiling databases on waste transfers. These databases are internet accessible, and the EPA has shown a high level of responsiveness to public queries over their limitations.

Despite efforts to date, however, data on the scope and nature of the problem are incomplete. At this point we simply do not know what happens to a vast portion of the wastes generated by American firms in Mexico: data from Mexican authorities, including the fate of U.S. waste exports to Mexico, are not made public. More seriously, efforts among the various agencies and interest groups to track down and prosecute firms and individuals involved in illegal waste dumping are not fully coordinated and are therefore less effective. These problems are mirrored internationally: differences over hazardous waste definitions, reporting practices, and resultant action are key stumbling blocks in the Basel Convention negotiations, and regulatory efforts by all countries are hampered by a lack of consistent and up-to-date information on the actual extent of legal and illegal waste transfers across borders.

Key Problems

- Levels of U.S. waste exportation and wastes generated by U.S. firms abroad both remain high; yet the U.S. lags behind the international community by delaying ratification of the Basel Convention.
 - Border hazardous waste issues are likely to worsen post-2000 due to lack of disposal infrastructure; yet the response by government agencies and firms has been slow and uncoordinated.
 - While information availability has improved, problems remain with regard to its extent and reliability.
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At the moment, the State Department is seeking to ratify the Basel Convention under the Resource Conservation and Recovery Act (RCRA) in its 1989 form without the subsequent amendments banning North-South trade. The U.S. needs to demonstrate in the eyes of the international community that it is committed to halting illegal waste exports and that it is

point for vocal and well-organized protests from local and transnational environmental groups. A few U.S. firms have already been successfully sued for damages to local inhabitants.

In the short term, U.S. firms need incentives to continue shipping hazardous wastes back across the border while waste disposal infrastructure is developed in Mexico. Collaborative cross-border partnerships on a local level among the border cities are becoming accepted entities and can be quite powerful in influencing local environmental politics, but the scope for public-private partnerships remains underexplored. The most appropriate agency for dealing with hazardous waste infrastructure on the border is BECC. Its mission is to work with the North American Development Bank to certify environmental problems and fund infrastructure improvements in the border region. Its bilateral, local, and participatory structure makes it well-suited to working on these sorts of projects. According to a report from the Udall Center for Studies in Public Policy, there is some dispute over whether its mandate extends to hazardous waste management as well as to municipal waste and wastewater management; this extension should be made unambiguous. By working more closely with Border XXI, and fully coordinating activities both across borders and across agencies, BECC can help ensure progress toward implementing already identified hazardous waste policy priorities in ways considered acceptable by border communities.

With respect to information availability, the three NAFTA countries have made significantly more progress in setting up reliable, computerized, and regularly updated databases of waste generation and transfer information than have the main international organizations (the European Union, UNEP, and the OECD). Several areas have been targeted by Border XXI for improvement: developing a vulnerability atlas for the border region, improving monitoring enforcement activities related to illegal waste transfers, and ensuring that data from Mexico enters the public domain. Developing these indicators has to remain a high priority, and the independence of reporting agencies, recently questioned in the case of the CEC, needs to be maintained. Finally, U.S. authorities should cooperate with international organizations to improve data collection, reliability, and availability worldwide: a project that would vastly help the work of those attempting to control the global hazardous waste trade.

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Key Recommendations

- The U.S. needs to ratify the Basel Convention and increase its public commitment to clean up wastes generated or transported abroad by U.S. firms and other interests.
- Border initiatives to construct waste disposal facilities as well as efforts to minimize and clean up wastes should be strengthened, and local, binational projects should be encouraged.
- Recent progress in information generation must continue; the U.S. must also cooperate with the international community in dealing with this key stumbling block.

willing to take back (or otherwise clean up) U.S.-origin hazardous wastes overseas—practices that would parallel actions already taken with respect to U.S.-origin nuclear research reactor fuel. Fully participating in Basel-related negotiations and taking on the responsibilities of being a negotiating party is one way to do this; showing a clear commitment to dealing with the maquiladora situation on the border with Mexico is another.

The material benefits of Basel ratification are not immediately apparent. Moreover, the ratification procedure is likely to take a long time—probably until after the next meeting of

the parties—and even then, its progress through domestic political procedures is likely to be difficult. But the Basel Convention's importance is that it is one of the few international agreements that explicitly recognizes and seeks to address North-South equity issues. Furthermore, Basel Convention politics are themselves in flux, and entering at this point would give the U.S. some leverage in determining the path Basel will ultimately take, especially since this is an area in which a large number of U.S. groups (both for and against the trade) have a stake.

A recent development that needs to be encouraged is the involvement of American environmental management firms in cleaning up toxic waste at military bases in the Philippines. Such work also needs to be extended into dealing with wastes left by private sector firms.

Waste disposal, cleanup, and minimization measures on the U.S.-Mexican border need to be strengthened through intergovernmental, interagency, and/or inter-firm cooperation. Even after NAFTA rules change in 2000, the U.S. has a direct interest in maintaining an active and cooperative role in cleaning existing sites and preventing illegal waste dumping. Pollutants released in Mexico are often transported by air or water north of the border, and the maquiladora situation is a focal

Foreign Policy in Focus is a joint project of the Interhemispheric Resource Center (IRC) and the Institute for Policy Studies (IPS). The project depends on sales and subscription income, individual donors, and grants from The John D. and Catherine T. MacArthur Foundation, General Service Foundation, and various church organizations. *In Focus* internships are available.

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World Wide Web

Border Ecoweb

<http://www.borderecoweb.sdsu.edu/>

borderlines (Hazardous Waste on the Border)

<http://www.zianet.com/irc1/bordline/1998/bl46/bl46.html>

EPA U.S. - Mexico Hazardous Waste Tracking System (HAZTRAKS)

<http://www.epa.gov/earth1r6/6en/h/haztraks/haztraks.htm#data>

Trade and Environment Database

<http://gurukul.ucc.american.edu/ted/ted.htm>

U.S. - Mexico Border XXI Home Page

<http://www.epa.gov/usmexicoborder/index.htm>

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