

# **THE INTERNATIONAL HAZARDOUS WASTE TRADE THROUGH SEAPORTS**

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International Network for Environmental Compliance and Enforcement  
Seaport Environmental Security Network

## **1 INTRODUCTION**

Despite the existence of international, regional, and bilateral agreements designed to ensure the safe and environmentally sound transport and treatment of hazardous waste, the illegal trade in hazardous waste remains a significant problem throughout the world and poses significant human health, environmental and financial risks to the countries involved.

As common transit points for international shipments of hazardous waste and recyclable materials, seaports are a critical hub in global efforts to ensure that international waste trade and waste transport are legal and safe.

The Seaport Environmental Security Network (SESN) is an operational network of professionals involved in the inspection and monitoring of transboundary movements of hazardous waste through seaports. The goals of SESN are to build capacity, raise awareness, and facilitate international enforcement collaboration among government officials on ways to detect and prevent illegal and dangerous shipments of hazardous waste.

This paper provides a brief overview of:

- International efforts to address the illegal trade in hazardous waste;
- What is known about this illegal trade;
- Obstacles to, and gaps in, an effective international effort to stop illegal shipments of hazardous waste; and
- The activities of the Seaport Environmental Security Network.

The paper is in working draft form and is intended to provide current background information about the difficult issues the international community faces in monitoring the global hazardous waste trade and responding to problems when they arise. It will be updated periodically to reflect the general viewpoints and experiences of the participants in the network.

## **2 INTERNATIONAL EFFORTS TO ADDRESS THE ILLEGAL TRADE IN HAZARDOUS WASTE**

In the late 1980s, increasingly strict environmental regulatory regimes in industrialized countries led to a sharp rise in the cost of hazardous waste treatment. Searching for ways to reduce the

increasing cost of disposal, waste traders began shipping hazardous waste to developing countries. Tragic incidents involving ships from developed countries attempting to dispose of their hazardous cargos in developing countries led to awareness that international collaboration would be necessary to combat this type of activity.

Incidents involving the ships the *Karin B.* and the *Khian Sea* are two early examples of this problem. The *Karin B.* carried toxic waste from Italy to Nigeria, resulting in the dumping of a reported 6,000 drums of chlorinated solvents, waste resins, and some highly toxic polychlorinated biphenyls (PCBs) in Nigeria.<sup>1</sup> After protests by the Nigerian government and environmental groups, the Italian Government ordered the waste repatriated, but local authorities in Italy objected to the return of the waste, causing the *Karin B.* to wander the seas after France, Britain, Spain, West Germany and the Netherlands refused to let the ship off-load its cargo.<sup>1</sup> Italy finally accepted the waste back.<sup>1</sup>

Similarly, the *Khian Sea* wandered the world's seas for more than two years in search of a place to dump its 28 million pounds of municipal and industrial incinerator ash from the U.S. city of Philadelphia.<sup>2</sup> The ash contained dangerous and toxic compounds, including aluminum, arsenic, chromium, copper, lead, mercury, nickel, zinc, and dioxins. After dumping over 2,000 tons of ash in Haiti, the *Khian Sea* was denied entry at ports throughout Latin America, the Caribbean Africa and Asia, before the ash mysteriously disappeared, probably in the Indian Ocean.<sup>2</sup> The ship showed up at port with an empty hold and a new name, *Pelicano*.<sup>2</sup>

The protests and outrage caused by these incidents helped lead to the adoption of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, an international treaty which entered into force in 1992.<sup>3</sup> The Convention currently has 170 member countries.<sup>3</sup> Members ratifying the Convention are bound to abide by its waste export rules.<sup>3</sup>

Under the Convention, a material regulated as a hazardous waste in one country may be exported to another country only with the importing country's prior informed consent.<sup>4</sup> The Convention requires that waste be disposed of in a manner no less environmentally sound than it would be in the parent country; parties to the convention should not trade with non-Parties to the Convention unless a bi-lateral agreement is in place; and exporting states of illegal traffic are required to retrieve and dispose of illegally exported waste at their own cost.<sup>4</sup>

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<sup>1</sup> Greenhouse, Steven. Toxic Waste Boomerang: Ciao Italy! New York Times. September 3, 1988. Internet: <http://query.nytimes.com/gst/fullpage.html?res=940DEFDC1F38F930A3575AC0A96E948260>.

<sup>2</sup> Associated Press. After 2 Years, Ship Dumps Toxic Ash. New York Times, November 28, 1988. Internet: <http://query.nytimes.com/gst/fullpage.html?res=940DE1DC163DF93BA15752C1A96E948260>.

<sup>3</sup> Secretariat of the Basel Convention. Internet: <http://www.basel.int/>.

<sup>4</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. Article 4: General Obligations. Text of the Basel Convention. Internet: <http://www.basel.int/text/con-e-rev.doc>.

The Basel Convention allows for the establishment of regional agreements equal to or stronger than those in the Convention.<sup>5</sup> One such agreement is the Organisation for Economic Development and Co-operation (OECD) Decision on the Control of Transboundary Movement of Waste Destined for Recovery Operations.<sup>6</sup> This system allows for OECD countries to continue trading in wastes destined for recovery with countries, such as the United States, that have not ratified the Basel Convention, but that have bilateral agreements in place with other countries with controls.<sup>6</sup>

Another regional agreement is the Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa.<sup>7</sup> The Bamako Convention is based on the principles of the Basel Convention, but it is much stronger, prohibiting the import of any hazardous waste (including radioactive) into any of the signatory countries.<sup>7</sup> The Bamako Convention was negotiated by twelve nations of the Organization of African Unity in 1991, and entered into force in 1998.<sup>7</sup> Impetus for the Bamako Convention arose from the failure of the Basel Convention to prohibit trade of hazardous waste to less developed countries and from the realization that many developed nations were exporting toxic wastes to Africa.<sup>7</sup>

Other examples of agreements that are in place for the purpose of controlling transboundary movements of hazardous wastes and other wastes are:<sup>8</sup>

- Kuwait Regional Convention for co-operation on the Protection of the Marine Environment from Pollution.
- Waigani Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region adopted 16 September 1995.
- Agreement of the Commonwealth of Independent States (CIS) on the Monitoring of Transboundary Shipments of Hazardous and other Wastes, entered into force on 12 April 1996.

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<sup>5</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. Article 11: Bilateral, Multilateral and Regional Agreements. Text of the Basel Convention. Internet: <http://www.basel.int/text/con-e-rev.doc>.

<sup>6</sup> Organisation for Economic Co-operation and Development. Guidance Manual for the Implementation of the OECD Decision C(2001)107/FINAL on the Control of Transboundary Movements of Wastes Destined for Recovery Operations. March 16, 2004. Page 5. Internet: [http://www.oalis.oecd.org/olis/2001doc.nsf/LinkTo/env-epoc-wgopr\(2001\)6-final](http://www.oalis.oecd.org/olis/2001doc.nsf/LinkTo/env-epoc-wgopr(2001)6-final).

<sup>7</sup> Tutu, Kwadwo. Bamako Convention and Good Management of Hazardous Wastes: A Case for Sustainable Development. Powerpoint presentation from Basel Convention Regional Workshop Aimed at Promoting Ratification of the Basel Protocol on Liability and Compensation in Addis Ababa, Ethiopia. August 30 to September 2, 2004. Internet: [www.basel.int/legalmatters/regworkshops/ethiopia/bamako.ppt](http://www.basel.int/legalmatters/regworkshops/ethiopia/bamako.ppt).

<sup>8</sup> Secretariat of the Basel Convention. Basel Convention Website: Bilateral, Multilateral and Regional Agreements and Arrangements. Internet: <http://www.basel.int/article11/multi.html>.

- Agreement of Unified Terms of Transit through the Territories of States-Members of the Custom Union.
- Centro American Agreement on Transboundary Movements of Hazardous Wastes.
- Free Trade Agreement between the United Mexican States and the Republics of El Salvador, Guatemala and Honduras.
- Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal.

Within the European Union, the Waste Shipment Regulation EC N° 1013/2006 is in place.<sup>9</sup> This Regulation, which is directly applicable in all 27 EU Member States, implements the Basel Convention and the OECD Decision. Also, two separate Regulations have been adopted in relation to shipments of non-hazardous waste from the European Union to countries that are not members of the OECD.<sup>10</sup>

None of the abovementioned agreements contain enforcement mechanisms or minimum standards to ensure the proper implementation of the agreements. Compliance monitoring, enforcement investigations and enforcement actions must in principle be carried out at the level of individual governments. As in many countries, implementation of environmental legislation is not a (political) priority. Competent authorities and involved enforcement bodies are often faced with a lack of capacity, tools and knowledge.

### **3 WHAT IS HAZARDOUS WASTE?**

Controlling transboundary movements of waste often starts with two questions: first, is the material a waste? Second, is it hazardous?

The Basel Convention recognizes the primacy of national law in defining hazardous waste. It defines waste as, “[s]ubstances or objects which are disposed of or are to be disposed of or are required to be disposed by the provisions of national law.”<sup>11</sup>

In general, hazardous wastes are by-products of industrial and manufacturing processes and discarded products from commercial and industrial sectors. They can also be found in household wastes. These wastes contain a specific chemical, chemicals, compounds or components that make them hazardous. Examples include waste acids, contaminated sludges, spent chemicals,

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<sup>9</sup> Office Journal of the European Union. Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste. June 14, 2006. Internet: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:190:0001:0098:EN:PDF>.

<sup>10</sup> Office Journal of the European Union. Commission Regulation (EC) No 740/2008 of 29 July 2008 amending Regulation (EC) No 1418/2007 as regards the procedures to be followed for export of waste to certain countries. July 29, 2009. Internet: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:201:0036:0044:EN:PDF>.

<sup>11</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.: Article 2. Text of the Basel Convention. Internet: <http://www.basel.int/text/con-e-rev.doc>.

pesticides, unused cleaning products, paints, certain parts of end of life vehicles, industrial equipment, and electronic goods.

The main problem with the definition of waste arises when distinguishing second hand goods from waste; for example in the case of used electronics or cars. Although some national guidelines exist to determine waste versus second hand goods, accepted international guidelines are lacking.

The general characteristics of hazardous waste usually include toxicity, flammability, corrosivity, reactivity, ignitability, and explosivity.<sup>12</sup> Toxic wastes are poisons, even in trace amounts.<sup>12</sup> They may have acute effects, causing death or violent illness, or chronic effects, slowly causing irreparable harm to humans or ecosystems.<sup>12</sup> Toxic wastes may cause cancer many years after exposure or they may cause major biological changes in the offspring of exposed humans and wildlife.<sup>12</sup> Explosive wastes may react violently with air or water and can cause explosions or form toxic vapors. Flammable wastes burn at relatively low temperatures and may cause an immediate fire hazard.<sup>12</sup> Corrosive wastes include strong acidic or alkaline substances. They destroy solid material and living tissue upon contact, by chemical reaction.<sup>12</sup>

Because individual countries often have their own definition of (hazardous) waste, confusion can arise when attempting to monitor and track transboundary hazardous waste shipments or verify treatment.<sup>13</sup>

#### **4 WHY AND HOW IS WASTE ILLEGALLY TRADED?**

The desire by businesses to minimize costs and maximize profits drives the illegal trade in hazardous waste. As international and national hazardous waste disposal laws and conventions came into effect, legal disposal of wastes became more expensive, causing unscrupulous businesses to look for ways to avoid the cost of these laws. The increased cost of hazardous waste disposal, coupled with an increasing demand for secondary base materials from recycling, provides an incentive for some actors to make profits through illegal operations.

Common ways to avoid the law involve concealing or mislabeling hazardous waste; co-mingling the hazardous waste with (non-hazardous) municipal waste, paper, or plastic; or disguising waste as a product destined for recycling. As it is difficult to detect illegal shipments of hazardous waste based only on container documentation, which might not reflect the actual content of the container or shipment, it is crucial to also perform physical checks of shipments to verify the composition of the waste.

The following four cases provide examples of the illegal waste trade and the importance of international cooperation in addressing this problem.

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<sup>12</sup> Encyclopaedia Britannica Online. Internet: <http://www.britannica.com/EBchecked/topic/189203/environmental-works/72398/Hazardous-waste-characteristics>.

In 2005, Dutch port authorities seized 54 containers holding more than 1000 tonnes of wastes.<sup>14</sup> The waste was officially declared as recovered paper on its way to China from the United Kingdom, but it was found to contain bales of compacted household waste, food packaging and residues, plastic bags, waste wood and textiles.<sup>14</sup> It was discovered that the wastes were first transported to the Dutch ports by lorry and ferry, where the bales were transferred to containers.<sup>14</sup> Five other lorries containing the same type of waste, due to be recycled, reached Germany and turned up in Indonesia. None of the involved authorities gave their consent to the import, export or transit of the waste.<sup>14</sup> The shipments were eventually returned to the country of export.<sup>14</sup>

One well-known case illustrates the profit motive behind the illegal waste trade. In the Pyramid Chemical Sales case, the United States Environmental Protection Agency (USEPA) ordered Pyramid Chemical Sales, a chemical brokerage firm, and its president, to clean up its warehouse and improve its storage of waste chemicals. Instead of properly complying, Pyramid shipped 29 forty-foot containers of aging chemicals to Rotterdam, where the shipping papers indicated they were to be shipped to a buyer in Nigeria for recycling. Dutch authorities, concerned about leaking containers, contacted USEPA. A joint investigation revealed that no such Nigerian buyer existed for the chemicals. Here the company found it worth the risk to attempt to ship in excess of 300 tons of materials half way around the world for illegal disposal to avoid the cost of complying with United States clean up and disposal requirements. The waste was eventually treated in the Netherlands and the company was required by court order in the US to pay reimbursement for the treatment.

Perhaps the best known case involves a tanker ship, the *Probo Koala*. On 19 August 2006, the *Probo Koala* chartered by Trafigura, dumped over 500 tons of a mixture of toxic waste in Abidjan, one of the major cities of the Ivory Coast.<sup>15</sup> The hazardous waste was originally described as slops, but samples showed that it was in fact a mix of water, gasoline, and caustic soda residues generated after a desulphurization process of naphta, a volatile liquid hydrocarbon mixture.<sup>16</sup> In the time period immediately after the hazardous water was dumped, 15 people died, 69 were hospitalized and over 100,000 sought medical treatment.<sup>15</sup> In July 2006, the tanker tried to dispose of the waste in Amsterdam (Netherlands). As the treatment costs of the waste would have been around \$250,000 dollars, Trafigura decided to dispose of the waste in West Africa, where the costs would be significantly lower.

In July 2009, 89 containers containing mixed waste were illegally shipped from the United Kingdom to Brazil.<sup>17</sup> The 1500 tons of waste, which were labeled as mixed recyclables, were detected by the Brazilian authorities in three ports.<sup>17</sup> The authorities alleged that the containers held landfill and hazardous waste, including household waste, batteries, used syringes and dirty

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<sup>14</sup> Vidal, John. Scandal as waste returns to Britain. The Guardian. April 4, 2005. Internet: <http://www.guardian.co.uk/society/2005/apr/04/environment.uknews>.

<sup>15</sup> CNN.com. Firm offers to settle toxic waste case in Ivory Coast. September 21, 2009. Internet: <http://edition.cnn.com/2009/WORLD/africa/09/21/ivory.coast.toxic.waste/index.html>.

<sup>17</sup> BBC News Online. Brazil returns hazardous UK waste. August 6, 2009. Internet: [http://news.bbc.co.uk/2/hi/uk\\_news/8187081.stm](http://news.bbc.co.uk/2/hi/uk_news/8187081.stm).

diapers.<sup>17</sup> The containers were returned to the United Kingdom and the Environment Agency for England and Wales launched an investigation.<sup>17</sup> Three arrests have been made thus far.<sup>17</sup>

## 5 THE SCOPE OF THE PROBLEM

Because illegal trade is carried out covertly, precise figures on the extent of the trade are impossible to determine. A 2000 United States government study, *International Crime Threat Assessment*, highlights some of what is known about the tremendous size and complicated nature of the criminal aspects of this trade:

“The tremendous costs for legally disposing of pollutants and dangerous chemicals have created new illicit business opportunities for criminal organizations who earn \$10-12 billion per year for dumping trash and hazardous waste materials. Organized crime groups are taking increasing advantage of the multibillion-dollar legal trade in recyclable materials, such as scrap metals, to comingle or illegally export or dump toxic wastes. Most of these wastes are shipped in "trash-for-cash" schemes to countries in Eastern and Central Europe, Asia, and Africa where disposal costs and enforcement of environmental regulations are lower. The lack of specific legislation governing such crimes in many countries and poor enforcement or limited legal penalties in many others (often only fines that are insignificant in comparison to the millions in profits that can be made from this activity) reduce the risks for international crime groups involved in dumping hazardous wastes.”<sup>18</sup>

Likewise, a 2006 report by the Interpol Pollution Crimes Working Group concluded that a link exists between pollution crimes and organized crime. Import and export of waste and the disposal of hazardous waste accounted for 28 of the 36 cases reviewed in the report.<sup>19</sup> It should be noted that this report addresses only activities that meet the stringent legal standard for criminal misconduct, and does not touch upon the myriad of other shipping activities, such as negligent or shoddy practices, that may lead to the improper international shipping, handling, or disposal of hazardous wastes.

Some international organizations have performed exercises focusing on detecting illegal shipments of waste.

The Cluster for Transfrontier Shipments of Waste of the European Union’s Network for the Implementation and Enforcement of Environment Law, known as IMPEL-TFS, promotes compliance with the waste shipment regulations through enforcement. As part of this effort, participant countries carried out a number of joint inspections from 2004-2009 at major seaports

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<sup>18</sup> U.S. Government Interagency Working Group. [International Crime Threat Assessment](http://clinton4.nara.gov/WH/EOP/NSC/html/documents/pub45270/pub45270chap2.html#6). December 2000. Internet: <http://clinton4.nara.gov/WH/EOP/NSC/html/documents/pub45270/pub45270chap2.html#6>.

<sup>19</sup> Interpol Pollution Crimes Working Group. [Assessing the Links between Organised Crime and Pollution Crimes](http://www.interpol.int/Public/EnvironmentalCrime/Pollution/organizedCrime.pdf). June 2006. Internet: <http://www.interpol.int/Public/EnvironmentalCrime/Pollution/organizedCrime.pdf>.

and roads and found significant compliance problems associated with these types of shipments.<sup>20</sup> These inspections revealed that:

- Between 2004 and 2006, officials performed 175 inspections in 13 European countries. These inspections resulted in 24,052 document checks and 4,198 physical checks. Of the cargo checked, 26 percent contained waste, of which 51 percent were illegal and 43 percent had some type of administrative infractions. The illegal shipments included examples of e-waste, CFC containing refrigerators and end-of-life vehicles being shipped to Africa. Cases of mixed plastic waste and cable waste were detected on their way to China.<sup>20</sup>
- Between 2006 and 2008, officials performed 168 inspections, resulting in 14,000 transport checks. Two thousand of these contained waste, of which 15 percent were in non-compliance with the waste shipment regulations. Of the 300 shipments that were in non-compliance, 40 percent were illegal shipments and 60 percent had administrative infractions. The most significant illegal waste streams consisted of end-of-life vehicles, vehicle parts, plastics, and metal wastes.<sup>20</sup>
- Between October 2008 and May 2009, 26 European countries conducted and reported inspection activities on waste shipments. During this period 10,481 transports were checked and 7,886 (roughly 75 percent) underwent physical inspections. Out of these, 24 percent were related to transfrontier shipments of waste. In 19 percent of these inspected transports violations of the Waste Shipment Regulation requirements were detected, of which 37 percent were illegal transports, 46 percent were administrative violations and 17 percent other violations. It should be noted that these figures are based on random and target-oriented inspections and therefore do not reflect the overall compliance level in Europe. The four most frequent categories of waste where violations have occurred are (with a roughly equal share) paper and cardboard, plastic, metal, and waste electrical and electronic equipment (WEEE). The inclusion of reported ad hoc inspections increases the figures to over 11,500 transport inspections and several hundred company inspections, with over 100 additional illegal shipments detected.<sup>20</sup>

Another data set was developed by the Project Sky Hole Patching initiative, convened by the United Nations Environment Programme Regional Office for Asia and the Pacific and the World Customs Organization (WCO) Regional Intelligence Liaison Office for Asia and the Pacific (RILO A/P).<sup>21</sup> The project developed a tracking, notification and monitoring system to follow movement of suspicious shipments of ozone depleting substances (ODS) and dangerous

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<sup>20</sup> For an overview of the IMPEL TFS project and results to date, see:

[http://ec.europa.eu/environment/impel/tfs\\_projects.htm](http://ec.europa.eu/environment/impel/tfs_projects.htm)

<sup>21</sup> United Nations Environment Programme. Project Sky Hole Patching Goes into Operation: Tackling Illegal Trade in Ozone-depleting Substances and Dangerous Waste. Press Release. September 1, 2006. Internet: <http://www.unep.org/documents.multilingual/default.asp?documentid=487&articleid=5344&l=en>.

commodities across several customs territories.<sup>22</sup> The system enabled the involved authorities to follow the shipments, to exchange information and intelligence and take immediate enforcement action on any abnormality detected during the monitoring process.<sup>22</sup> The initiative has intercepted several cases of illegal movements of ODS and hazardous wastes, although precise figures are lacking.<sup>22</sup>

Most recently, the World Customs Organization assessed illegal waste flows and capacity for detecting such activity under a project referred to as Operation Demeter.<sup>23</sup> This joint global Customs initiative across Europe, the Asia/Pacific region and Africa netted more than 30,000 tons and 1,500 pieces of illegal hazardous waste in 57 seizures, ranging from household waste and scrap metal to discarded electronic goods and used vehicle parts.<sup>23</sup> Between March and May 2009, Customs administrations from 64 countries targeted the illicit cross-border shipment of hazardous and other waste en route from Europe to countries in the Asia/Pacific region and Africa.<sup>23</sup> This fifty-day operation, which was coordinated by the WCO Secretariat, was aimed at increasing information exchange among Customs administrations.<sup>23</sup> Customs officials at over 300 seaports and other selected points intensified their risk profiling and physical controls to identify high risk shipments, and notified each other of any suspicious shipments across the continents.<sup>23</sup> They were supported by their national environmental agencies, the Secretariat of the Basel Convention, IMPEL, and the seven WCO RILOs located in the participating regions.<sup>23</sup> The majority of seizures took place in European countries such as the Netherlands, Belgium, and Italy before the waste could be shipped.<sup>23</sup> Iron scrap destined for Asia topped the list in terms of quantities seized. Africa remained the ‘destination of choice’ for household waste, such as used refrigerators containing CFCs and old television screens, with over 1100 of the approximately 1500 pieces seized destined for countries on the continent.<sup>23</sup>

## **6 E-WASTE: BURGEONING ENVIRONMENTAL AND HEALTH CRISIS**

The illegal waste trade involves different types of hazardous and non-hazardous waste, but because of the increasing use of electronics, the amount of equipment and devices being discarded is also rising. As a result, the international trade in these discarded used electronics is projected to grow substantially in the coming years.

The main challenge will be to ensure the safe and legal disposal and recycling of electronic waste or “e-waste.” E-waste can expose humans and the environment to toxins and carcinogens such as lead, mercury, cadmium, and polychlorinated biphenyls.<sup>24</sup>

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<sup>22</sup> World Customs Organization Regional Intelligence Liaison Office for Asia & the Pacific. Evaluation Report on Project Sky-Hole-Patching. October 2007. Internet: [http://www.greencustoms.org/reports/workshop/Sky\\_hole\\_patching.pdf](http://www.greencustoms.org/reports/workshop/Sky_hole_patching.pdf).

<sup>23</sup> World Customs Organization. Operation Demeter yields tons of illegal shipments of hazardous waste. July 8, 2009. Internet: <http://www.wcoomd.org/press/default.aspx?lid=1&id=187>.

<sup>24</sup> Peiry, Dr. Katharina. Speech. Environmental Requirements and Market Access: Turning Challenges into Opportunities. CBTF International Symposium. October 3, 2007. Internet: <http://www.unep-unctad.org/CBTF/events/geneva5/Basel%20EXEC%20SEC%20Remarks%20CBTF.pdf>.

According to the 2008 annual report of the Criminal Intelligence Service Canada (CISC), "The illicit trafficking and disposal of 'e-waste' - computers, televisions, cell phones - is driving a burgeoning environmental and human health crisis in several developing nations in Asia and, increasingly, in Africa."<sup>25</sup>

Each year, almost 7 million tons of high-tech electronics become obsolete.<sup>26</sup> The worldwide market for e-waste is growing by almost 9 percent per year, from \$7.2 billion in 2004, to a projected \$11 billion in 2009.<sup>26</sup> In 2007, about 140 million cell phones and 205 computer products were discarded by the United States.<sup>26</sup> In Europe, a number of forecasting assumptions were applied which predict that by 2020, total electrical and electronic waste will grow annually between 2.5 percent and 2.7 percent, reaching about 12.3 million tonnes.<sup>26</sup> Furthermore, this adverse trend will worsen between now and 2011, the CISC report states, because millions of North American television sets will be made obsolete by the switch to digital broadcasting.<sup>25</sup>

By disguising broken and inoperable electronics as used goods for re-use and refurbishment, exporters, brokers and handlers from countries that prohibit the export of obsolete electronics are able to use developing countries as a dumping ground for this hazardous waste. According to one recent report, 500 intermodal shipping containers per month enter Nigeria carrying 400,000 used computers, as well as other used electronic equipment, of which 75 percent are considered waste.<sup>27</sup> Nigeria is not alone. Episodes are being repeated throughout the developing world as people, often children, work in open air dumps, with acrid black smoke rising from burning plastics, extracting copper, gold, lead and other materials from electronic equipment with little more than their hands, and perhaps a hammer and pliers, or rocks, and open acid pits.<sup>28</sup>

In the United States, which requires exporters to have the consent of the United States Environmental Protection Agency (USEPA) and the receiving country before shipping broken cathode ray tubes (CRTs) abroad, a recent report by the United States Government Accountability Office (GAO) found that companies can easily circumvent these regulatory requirements. CRTs, or television and computer monitors, are particularly harmful because they can contain up to four pounds of lead.<sup>29</sup> In their report, GAO posed as foreign buyers of broken

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<sup>25</sup> Criminal Intelligence Service Canada. 08 Report on Organized Crime, Criminal Intelligence Service Canada. May 21, 2008. Internet: [www.cisc.gc.ca/annual\\_reports/annual\\_report\\_2008/document/report\\_oc\\_2008\\_e.pdf](http://www.cisc.gc.ca/annual_reports/annual_report_2008/document/report_oc_2008_e.pdf)

<sup>26</sup> US figures from the official website of the United States Environmental Protection Agency: Statistics on the Management of Used and End-of-Life Electronics. Internet: <http://www.epa.gov/epawaste/conserves/materials/ecycling/manage.htm>. Other figures from Waste Electrical and Electronic Equipment (WEEE), Final Report. United Nations University. 2007. Internet: [http://ec.europa.eu/environment/waste/weee/pdf/summary\\_unu.pdf](http://ec.europa.eu/environment/waste/weee/pdf/summary_unu.pdf).

<sup>27</sup> The Basel Action Network (BAN). The Digital Dump. October 24, 2005. Internet: <http://ban.org/Library/TheDigitalDump.pdf>.

<sup>28</sup> Some of this trade is legal; some is not. The Basel Convention specifically exempts the repair and refurbishment of used electronics for its provisions. The European Union holds manufacturers responsible for e-waste disposal at end-of-life and bans the export of hazardous waste to non-OECD countries for any reason, including recycling. Like Europe, some countries in Asia hold manufacturers responsible for e-waste disposal.

CRTs in India, Pakistan and other countries. Forty-three companies expressed a willingness to export these items without the proper governmental consent.<sup>29</sup>

## **7 OBSTACLES TO AN EFFECTIVE INTERNATIONAL EFFORT**

Obstacles to an effective international effort to detect and deter illegal shipments of hazardous waste through seaports may vary from region to region, country to country, and even from port to port, but together they affect the ability of enforcement authorities to ensure that international shipments comply with hazardous waste management requirements and customs and port obligations. Some of these obstacles include:

### **A. Ineffective international enforcement collaboration**

Having international rules in place for transboundary movements of hazardous waste in a global waste market requires a level playing field and even and consistent enforcement of the law. However, current enforcement structures are often weak, compromised by political corruption, under-resourced, or focused on local and national issues, and not well connected to international intelligence networks such as Interpol and WCO.

Sharing and exchanging experiences, intelligence and information on transboundary movements of hazardous waste is still uncommon and not very well facilitated and structured. Also, legal issues often limit the exchange of vital information about possible illegal activities and violators. Hence, following waste from point of origin to its final destination and verifying its treatment is often extremely difficult. Furthermore, the number of involved companies in the waste trade chain is numerous. The waste industry is an international market, operating at a global level. The current national and local enforcement structures do not match this development and are, therefore, insufficient to check the international activities of these involved companies.

### **B. Lack of domestic enforcement cooperation**

Coordination among various environmental enforcement agencies, including environmental, customs, port and harbor authorities and port police agencies, will enhance a country's ability to identify and interdict illegal shipments of hazardous waste. This national coordination can be formalized in an inter-ministerial agreement which establishes a framework for specific responsibilities, communications and conflict resolution protocols.

### **C. Inadequate data on the scope and complexity of illegal movements of hazardous waste through seaports**

International efforts are generally focused on specific problems or cases. Outside of the European Union's IMPEL-TFS projects, very few efforts have been made to ascertain overall compliance rates and enforcement problems. As a result, the extent and consequences of illegal movements are not well documented. When problems are discovered, it is often difficult to

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<sup>29</sup> United States Government Accountability Office (GAO). Electronic Waste: EPA Needs to Better Control Harmful U.S. Exports through Stronger Enforcement and More Comprehensive Regulation. GAO-08-1044, August 28, 2008. Internet: <http://www.gao.gov/products/GAO-08-1044>.

untangle whether they exist because of a lack of enforcement, unclear rules, the narrow scope of existing regulatory controls or some combination of these factors and others. It is also not clear if these detected illegal shipments are isolated incidents or common practice, as further in-depth investigations are usually not conducted.

#### D. Insufficient legal frameworks

Compliance efforts can be hampered by inadequate domestic rules and non-uniform rules in the international community. Problems often arise in interpretations and definitions regarding waste versus non-waste, hazardous versus non-hazardous and issues regarding re-use and recycling versus final disposal. Countries that trade waste can have fundamentally different definitions of what constitutes hazardous waste in their regulatory schemes. In addition, some countries' regulatory controls are narrower in scope than others, particularly as they apply to the import and export of used electronics.

The lack of a legal framework to empower enforcement officers to perform inspections at involved companies, and even prosecute suspected offenders, can hinder effective enforcement of the rules.

#### E. Lack of capacity

Capacity problems in port or waste management, enforcement and compliance programs, and the environmentally sound management of wastes, plague many parts of the world. The lack of capacity can refer to scarce financial and human resources, such as a lack of trained inspectors and proper equipment, or difficulties in collecting information about transactions and managing data. It can also refer to governance issues, poor regulatory conditions, and the erosion of the rule of law through bribery and corruption.

#### F. Lack of political will

In many countries, the enforcement of waste shipment laws is not a national priority. Hazardous waste issues must compete with border security issues, weapons, illegal drugs, counterfeit money, invasive species, and other domestic threats to receive close screening attention on entry at ports. They also generally lack value for purposes of the collection of customs duties and tariffs.

## **8 THE SEAPORT ENVIRONMENTAL SECURITY NETWORK**

The Seaport Environmental Security Network (SESN) works to strengthen the enforcement capacity of both developed and developing countries to prevent illegal hazardous waste shipments through ports, and prevent dumping in the developing world.

Its goals are to:

- Support international cooperation among enforcement authorities who have responsibilities in seaports.

- Provide opportunities for participants to learn new skills, share experience, and strengthen their capacity to enforce domestic and international hazardous waste law.
- Raise awareness among the enforcement community and the public of the extent, nature, and impacts of the illegal trade in hazardous wastes.

Thus far, two meetings have been held, the first a kick off meeting which took place in October 2008, at Interpol Headquarters in Lyon, France. During this two-day workshop, 30 participants from Uruguay, Panama, the Dominican Republic, the US, Jamaica, the UK, the Netherlands, Belgium, Germany, Ghana, Benin, Thailand, Interpol, the Basel Convention Secretariat, the Green Customs Initiative, and INECE worked to identify capacity building, informational, and operational needs of to control illegal movements of hazardous waste through seaports and to identify areas for enforcement cooperation under INECE's Seaport Environmental Security Network.

In June 2009, a capacity building workshop was held in Ghana, with over 70 participants from Africa, Europe, Asia, and the Americas in attendance. Important elements of the workshop included 1) a visit to Tema port to observe and reflect on practical and administrative procedures, and technical and physical control processes for imported waste in containers moving through seaports, and 2) discussion of ways to stimulate effective inter-agency collaboration at the national level.

The workshop concluded with calls for action on international and national collaboration to control illegal hazardous waste shipments at seaports, including commitments to:

- Form a regional hazardous waste working group in West Africa among Benin, Côte d'Ivoire, Ghana, and Nigeria.
- Designate a time period during which countries will target illegal hazardous waste shipments through seaports and will share information on the results.
- Support and enhance capacity building by making training materials accessible through the INECE web site.
- Examine the feasibility of a pilot program to support the Container Control Programme of the UN Office of Drugs and Crime on the issue of hazardous waste trafficking.
- Evaluate opportunities for a 3rd Workshop on Combating Illegal Hazardous Waste Trade through Seaports in 2010.

## **9 CONCLUSION**

The illegal trade in hazardous materials is an increasingly serious and widespread problem that requires collaboration on all levels, from international to regional to national. Obstacles to collaboration are numerous, but several important initiatives are already underway to improve countries' abilities to tackle this problem. One of these initiatives is the Seaport Environmental

Security Network, which aims to build the capacity of port, Customs, environmental and other enforcement officials to detect, intercept, and deter the illegal movement of hazardous waste through training, network-building, targeted enforcement actions, information sharing and other tools.

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