

# **INTERNATIONAL HAZARDOUS WASTE INSPECTION PROJECT AT SEAPORTS: RESULTS AND RECOMMENDATIONS**

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## **SUMMARY**

The INECE Seaport Environmental Security Network (SESN) developed and facilitated an international hazardous waste inspection period during June and July 2010. The project was a global operational enforcement effort tackling illegal movements of hazardous waste involving environmental, customs, and other enforcement authorities from Africa, the Americas, Asia, and Europe. The project was beneficial to participants in identifying gaps in inspection and enforcement programs. The outcomes provide insight into the type of waste, modus operandi, and routes that are being used and confirm that cooperation between domestic authorities is essential to an effective enforcement strategy. Recommendations that emerged from the Inspection Project include facilitating future inspection projects; providing capacity building for relevant authorities at seaports; communicating INECE's environmental compliance and enforcement expertise to countries working to shape more effective domestic programs; and continuing to build partnerships that promote cooperation and collaboration at seaports.

## **1 PROJECT PARTICIPATION**

Belgium, Canada, Germany, Hong Kong,<sup>1</sup> Mexico, the Netherlands, Nigeria, Panama, the United Kingdom (Scotland, England and Wales),<sup>2</sup> and the United States participated in the Inspection Project and submitted reporting forms and/or reports to the INECE Secretariat. These countries were either already part of SESN, had shown interest in participating in the Inspection Project, or were considered a key country or port for the shipments of hazardous waste.

One country (Kenya) prepared for the Inspection Project, but was unable to perform inspections during the Inspection Project period. However, Kenyan officials indicated a desire to continue with preparations for an inspection event and to continue efforts to implement environmental inspections at seaports in their future work.

The majority of participating countries are Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous and Other Wastes and their Disposal. This global environmental treaty defines what constitutes illegal traffic of such wastes, specifies the consequences of illegal traffic, defines the take back procedure, and requires Parties to consider the illegal traffic of hazardous wastes and other wastes as a crime that they must prevent and punish under national law.

## **2 CAPACITY BUILDING TOOLS AND RESOURCES**

To support capacity building on hazardous waste shipment inspections generally and the Inspection Project specifically, INECE developed tools and provided support for country preparations. These tools included an Operation Guidance Document for the inspections, reporting procedures and forms, and communication tools.

### **2.1 Operational Guidance Document**

For the development of the Operational Guidance Document, INECE worked closely with an Ad Hoc Working Group. The purpose of this document was to provide tailored operational guidance for enforcement authorities participating in the SESN Hazardous Waste Inspection Project at Seaports. The document summarized the objectives of the project, detailed the reporting procedures that would be used, and provided an overview of international good practice on conducting environmental inspections at seaports. The document also communicated experiences and lessons learned from similar operations, such as the World Customs Organization's Operation Project Demeter and the European IMPEL-TFS projects.

### **2.2 Choice of Inspection Methods**

The Operational Guidance Document presented three options for performing inspections at seaports during the Inspection Project. Participating countries and ports were free to choose from these options, selecting whichever method was most suitable for their specific situation. These approaches were: (1) intelligence-led inspections approach, (2) at-random inspections based on national priorities and working methods, and (3) direct contact between participating ports/bi-lateral cooperation.

### **2.3 Reporting Forms**

The SESN prepared three reporting forms to support the project. The Cargo Investigation Form was used to assess the results of the Inspection Project in terms of numbers of detections, types of violations, types of waste, and routes. The Inspection Action Results Form was used to assess the results of the Inspection Project in terms of overall outcomes and to provide insight into the level of inter-agency collaboration, the percentage of illegal or suspected waste shipments, and lessons learned from the project. For the inspections of end-of-life vehicles, a separate form was developed and was to be completed only in the case where a car was considered waste.

### **2.4 Communications Tools**

To facilitate communication and the exchange of information between Inspection Project participants, the SESN developed several tools. SESN circulated a regular news bulletin to keep the participants informed about the progress of the Inspection Project. In total, four updates were circulated. A web-based, password-protected collaboration tool was provided for participants. This workspace was mainly used as a library and communication tool. The web-based system also provided a forum for participants to exchange messages, share ideas and information, and ask questions. Annex II contains a screenshot of the online collaboration tool. SESN also set up a helpdesk to respond to inspection-related questions from participants. Several experts were available to respond to questions and a separate email address was set up to receive inquiries.

## 2.5 Inspector Exchange

During an inspector exchange, an inspection expert from an experienced country joins in and advises on actual inspections in a less experienced country and/or vice-versa. In addition to providing guidance to less experienced countries, such programs also offer an opportunity to learn about the scope and limits of inspection practices and to share common challenges and responses. During the Inspection Project, inspectors from the Dutch and Belgian environmental authorities expertise and assisted in performing inspections in the Tema port in Ghana from 22-24 June 2010.

## 3 COUNTRY-LEVEL PREPARATIONS

Most of the countries that participated in the SESN Inspection Project organized a preparatory meeting for the various involved authorities (i.e. environmental inspectorates, customs, port police and port authorities). Country-level preparations were mainly used to introduce officers to the SESN, the Operational Guidance Document and associated procedures, to agree on inspection dates and methods, and to strengthen collaboration among the involved authorities.

Participating countries decided how and to what extent they would prepare for their Inspection Project activities, though the SESN recommended that all involved authorities make time to acquaint themselves with the Operational Guidance Document and associated reporting forms at a minimum. SESN assisted countries with their preparatory meetings by providing presentations on the Operational Guidance Document and other information as requested and feasible. Country-level preparations ranged from making small adjustments to business-as-usual inspection activities to detailed inspection trainings and from meetings of a handful of key officials from various authorities to Nigeria's 82-participant program.

## 4 OUTCOMES

### 4.1 Inspection Results

Cargo investigation forms representing 74 targeted cargo inspections were completed and returned to the INECE Secretariat by the reporting deadline of 30 July 2010. Of these, infractions were detected in 39 cases (53%) and six cases were still under investigation at the time countries reported their inspection results.

The illegal waste streams most often encountered during the event were: electronic waste (e-waste) wrongly declared as secondhand goods, waste batteries wrongly described as plastic or mixed metal scrap, cathode ray tubes from television and computer monitors wrongly described as metal scrap, and refrigerators containing chlorofluorocarbons (CFC). Depending on national

or regional legislation, the export of these hazardous waste streams is either forbidden or the control procedure required under the Basel Convention must be followed. In the majority of cases, the notification procedure under the Basel Convention was not complied with. Five Inspection Action Result forms and no End-of-Life Vehicle Forms were returned.

### **Example 1: Experiences in Vancouver Port, Canada**

In 2006, authorities in the port of Vancouver performed inspections on the export of hazardous waste. During those activities, a high number of violations were found. Therefore, finding no violations during the SESN Inspection Project was unexpected. The following factors may have contributed:

- Deterrence of illegal exports as a result of lengthy targeting of shipments concentrated in Vancouver during 2006 – 2008. These interceptions resulted in enforcement actions (including some prosecutions), high dock charges billed back to exporters, and penalties.
- A change in shipping routes where hazardous waste was no longer being directly exported to countries that prohibit waste streams, such as used computer monitors with cathode ray tubes (CRTs) and waste batteries. Shipments may have transited through countries that do not control these waste streams or the final destination may have been to countries which are not signatories to the Basel Convention.
- Shipping trends may have changed to utilize other Canadian ports of exit.
- Shipments of hazardous waste may have been misdescribed as something other than metal, plastic, or lead waste (which was the previous trend).
- Three to four weeks may not have been enough time to allow for a representative sample to be inspected.
- Successful outcomes of the exercise were:
  - New linkages were solidified between Environment Canada Environmental Enforcement and Canada Border Service Agency at the recently established port of Prince Rupert, British Columbia.
  - Streamlined inspection processes were established utilizing the latest Canada Border Service Agency technology and databases in the Vancouver and Delta, British Columbia ports.
  - Awareness of Environment Canada's mandate was raised with its partner, Canada Border Service Agency.
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#### **4.2 Taking Back Illegal Shipments**

When a transboundary movement of hazardous wastes or other wastes is deemed to be illegal traffic as a result of the conduct on the part of the exporter or generator, the Basel Convention requires the state of export to ensure that the wastes in question are taken back by the exporter, generator or, if necessary, by itself into the State of export. If impracticable, the wastes in question are to be disposed of in an environmentally sound manner. The majority of

the participants in the Inspection Project have national procedures in place regarding the take back procedure. For a few countries, take back issues were decided on a case-by-case basis.

In total, 19 illegal shipments of waste were returned to the state of export. In nine cases, the treatment of the waste took place in the country where the illegal waste was detected. In other cases involving illegal shipments, the waste shipment rules were violated, but, due to different points of view among the involved ministries, the waste was not returned. In the remaining six cases, participants did not report on the final status of the waste.

Decisions about waste take-back were made in a variety of ways during the Inspection Project. In some situations, decisions were made based on feedback from the receiving country. For example, authorities at an airport in Europe detected an illegal shipment of used cartridges destined for West Africa. They made contact with the West African authorities to obtain their opinion on the waste and the waste shipment was refused entry into the West African country.

In contrast, in another case involving waste electrical and electronic equipment and truck tire waste labelled as second-hand goods originating from a European port destined for a West African port, the decision was made based on the contents of the shipment. In this instance, European officials determined that the contents of the shipment would be sorted and illegal waste sent to a recovery facility in the European country and second-hand goods sent on to the West African nation.

A similar approach was taken by the authorities in Bremen, Germany. During the Inspection Project, a container with used goods destined for Ghana was inspected in Bremen and blocked in Antwerp after a further inspection in the Port of Antwerp by the federal environmental competent authority in Belgium. The container had originated in Bremen with second-hand televisions, refrigerators, and other used goods. The Belgian inspectors found some of the televisions to be waste. The repatriation of the container to Bremen was dealt with by Bremen Customs Authority at the request of the federal environmental competent authority of Belgium.

In a two-day action, the container was unloaded in Bremen by the sender under supervision of the Bremen Customs Authority and in the presence of the police. An expert in the identification of electric and electronic equipment inspected all of the nearly 300 used televisions that were unloaded. More than 100 of them were found to be inoperative and/or damaged and were disposed of legally as waste by the sender in Bremen. The televisions found to be functioning and all other used goods were loaded back in the container to be shipped to Ghana.

### **Example 2: Communication Methods and Waste Take-Back in Hong Kong**

During the Inspection Project, the Hong Kong Environmental Protection Department as a competent authority under the Basel Convention worked closely with the other competent authorities under the Basel Convention and the contact methods were e-mail, mail, telephone or fax. For the countries which were not in the INECE's participation list or parties of the Basel Convention (i.e. the United States), Hong Kong Environmental Protection Department contacted the relevant environmental authority.

For return shipments of hazardous waste, in addition to the relevant shipping companies, shippers and consignees, Hong Kong Environmental Protection Department also informed the

relevant competent authorities/environmental authorities on the details of the return shipments in advance so that they could take follow up actions accordingly.

### **Example 3: Inter-Country Communication, Belgium-Germany**

The Bremen port police in Germany were informed by Belgian authorities of a truck/trailer with CFC-containing refrigerators in the port of Antwerp, Belgium. The transport was destined for Cotonou, Benin, and originated from Bremen. In Bremen, the trailer was inspected in the beginning of June 2010 under the framework of the inspection activities.

During that inspection, 13 CFC-containing refrigerators were discovered and the exporter received an official order to dispose of them legally in Bremen. According to the inspection result in Antwerp, the exporter is suspected of having loaded other CFC-containing refrigerators in Bremen onto the trailer to export them wilfully to Africa. The repatriation of the truck/trailer from Antwerp to Bremen was dealt with by authorities in Bremen. Preliminary police proceedings have begun against the French exporter.

#### 4.3 Modus Operandi

During the Inspection Project, mislabelling of waste streams was the most common practice that was encountered. The most frequent cases of mislabelling observed were: (1) electronic waste and CFC-containing refrigerators wrongly declared as second-hand goods; (2) waste batteries wrongly described as plastic or mixed metal scrap; and (3) cathode ray tubes wrongly classified as metal scrap.

The reason for misdescribing the waste can be either deliberate (to disguise the waste, evade taxes or duties, or disguise the country of origin of the waste) or unintentional (for example, due to lack of knowledge or unclear criteria for waste versus non-waste).

### **Example 4: Cathode Ray Tubes Mideclared as “Plastic Scrap”**

In the United States, the export of used cathode ray tubes (the glass video display component of an electronic device such as a television or computer monitor) is subject to a notification procedure. However, it is also illegal to ship used cathode ray tubes into China under Chinese law. . During the Inspection Project, officials in Hong Kong discovered a shipment from the United States of glass from cathode ray tubes which the shipper declared as nonhazardous “plastic scraps.” The shipment was deemed to be illegal hazardous waste and was returned to the U.S.

#### 4.4 Routes

The Inspection Project provided an opportunity to track the flow of both illegal and legal waste shipments. During the Inspection Project, the most common routes encountered were from North America to destinations in Asia and from Europe to destinations in West Africa and Asia.

Transit ports were involved in several of the shipments. See Appendix IV for a table listing the routes encountered during the Project.

#### 4.5 Inspection Methods

Nearly all countries used one or more of three inspection methods described in the Operational Guidance Document: intelligence-led inspections, at-random inspections based on national priorities, and bi-lateral cooperation. The intelligence-led method was considered by many participating countries to be the most effective in terms of targeting possible illegal waste shipments.

In feedback about their experience conducting inspections, some participants noted that profiling and access to intelligence is crucial to performing effective inspections and that analyzing past and current data on e-waste streams is imperative to developing a proactive enforcement strategy. Some participants also noted that a physical check of a container is very time-consuming (namely, between four to eight man-hours).

Some participants commented that risk profiling for physical screening was very useful and underlined the importance of the involvement of customs because of the logistical and financial issues associated with detaining and unpacking containers for inspection. Storing and/or transporting a container held for further inspection or enforcement proceedings was found to be expensive in some cases and led to confusion and disagreements among authorities and/or shipping companies about who should be responsible for the costs, particularly if national legislation was not clear on this matter. It was also noted by some participants that disposing or otherwise dealing with hazardous waste in an environmentally-sound manner was expensive.

#### 4.6 Communications

Communication between participants during the Inspection Project occurred in several ways. In some cases, countries made direct contact with one another without the INECE Secretariat facilitating. In other cases, the INECE Secretariat helped to put participants in contact or to exchange information among participants.

The fact that many of the participants had become acquainted during previous SESN events furthered informal communications between countries which otherwise may have been challenging. At the domestic level, preparatory meetings provided an opportunity to improve existing lines of communication or establish new channels among enforcement authorities. Participants noted that the existence of these informal contacts facilitated the rapid exchange of information between relevant authorities.

Each country was left to make its own decisions regarding the method and type of information that would be shared during the Inspection Project in order to avoid problems with sharing sensitive information.

## 5 KEY OBSERVATIONS AND FINDINGS

The SESN Inspections Project provided a unique opportunity to gather information about the challenges associated with conducting hazardous waste inspections at seaports and to assess the usefulness of various inspection and enforcement tools and approaches. The following is a summary of key observations and findings based on empirical evidence collected during the Inspection Project, comments and requests from participating countries, the SESN's analysis of the reporting forms, and the participants' survey responses:

**= The Inspection Project produced tangible results which indicate that compliance with Basel Convention provisions remains a problem.**

About half of the waste shipments encountered during the project were deemed to be illegal. These results underline the need for more international enforcement actions in the future and confirm the importance of awareness raising and capacity building activities.

**= The Inspection Project highlighted the importance of efficient and effective communication channels at the international level.**

During the project, practical experiences, knowledge, and information were exchanged, formally through the use of tools developed for participants, as well as via informal bilateral contacts, made possible through previous meetings held within the framework of the SESN. The INECE Secretariat also played an important role in facilitating country-to-country communication. Though not a replacement for formal communication channels, these informal methods for exchanging information provided significant added value for operational enforcement collaboration during the Inspection Project.

**= The Inspection Project confirmed the benefits of the learning-by-doing approach and was useful in identifying gaps in inspection and enforcement programs.**

By actually performing checks on the ground, participants, together with other involved authorities, were able to more clearly identify gaps and weaknesses in their inspection and enforcement programs. Some of these gaps include: difficulty classifying certain waste streams due to a lack of clear criteria; lack of time, staff, intelligence, and reliable data for performing inspections; lack of resources; lack of cooperation among authorities; and inconsistent or contradictory national legislation.

**= Although the inspections performed under this project provide an incomplete picture of the total transboundary movements of hazardous wastes, the outcomes provide insight into the types of waste, modus operandi, and routes involved.**

E-waste and CFC-containing refrigerators wrongly declared as secondhand goods, waste batteries wrongly described as plastic or mixed metal scrap, and cathode ray tubes wrongly described as metal scrap were the most frequently detected illegal waste shipments. Common routes were from Europe to West African countries and from the United States to Asia.

**= Cooperation among domestic authorities was essential for effective detection and enforcement.**

Participants noted that, in situations where customs was involved in the inspection process, the use of their tools and equipment (e.g, x-ray scanner) was very helpful. Some form of cooperation between ministries and authorities existed in most countries, either informally or formally. Participants noted that preparatory meetings were an essential first step in aligning enforcement authorities to implement an exercise such as the SESN Inspection Project and that these pre-meetings were feasible to organize.

**= Participants noted challenges they encountered during their participation in the Inspections Project.**

They included: lack of formal collaboration with enforcement partners; lack of time to prepare the inspections; lack of good intelligence; absence of a clear (updated) national



legislative framework; inconsistent national legislation; and lack of clarity on responsibility for costs of enforcement and inspection activities, such as storage or detention of containers or abandonment by the exporter.

**= The Inspection Project was a useful exercise that generated valuable information for participants.**

The level of commitment to the project demonstrated by participating countries indicated an increased level of awareness of the problem of hazardous waste trafficking through seaports. For some participants, the Inspection Project was a trigger to (further) sensitizing the involved authorities and gaining practical experience with port inspections in a collaborative way.

## **6 RECOMMENDATIONS AND NEXT STEPS**

Based on the outcomes of the Inspection Project, the SESN has developed the following recommendations to guide the network as it plans future work. They form a call to action, not only for the SESN, but also for countries committed to improving environmental security at their seaports and for relevant international organizations.

6.1 The SESN should facilitate future projects similar to the Inspection Project that focus on operational enforcement collaboration at the national and international levels.

Countries requested that the SESN consider facilitating future international collaboration opportunities at seaports, in the manner of the first Inspection Project. Countries requested modifications including more time for preparations, more training on the ground in advance of the detection period, inspector exchange programs during the Inspection Project, and a longer period for inspections/detection (e.g., 3 months). The SESN also should consider how future inspection periods may be used to promote greater regional cooperation.

The Operational Guidance Document should be revised and updated in certain areas, but should remain an important part of the toolkit. Another recommended addition to the toolkit is a booklet containing photographs of cases of non-compliance which may be used as a guide for inspectors.

To improve communication assistance in any future inspection project, the online communication tool and the help desk should be re-evaluated and adjusted. In addition, the reporting forms should be updated to capture more specific information about how authorities coordinated to conduct their inspections and follow-up, both across national borders and domestically.

6.2 The SESN should support countries in their on-the-ground efforts to improve enforcement of domestic laws that are designed to implement Basel Convention requirements.

Most participating countries have implemented the provisions of the Basel Convention into national law. However, some participating countries either lacked an adequate legislative framework or lacked the capacity to fully implement and enforce existing requirements. The SESN may evaluate ways to work with countries to review the enforceability of existing requirements and/or to share experience in designing and implementing compliance promotion and enforcement strategies. The SESN and Secretariat of the Basel Convention may find here an area of joint work for the two organizations.

Additionally, many countries do not have adequate national guidance on differentiating “second-hand goods” from “waste.” Similarly, some countries faced the challenge of not having national legislation to respond to shipments of electronic waste. The SESN could consider providing examples or other information on establishing national definitions for “second-hand goods,” continue to work with countries on national definitions of electronic waste, and otherwise expand cooperative efforts to control illegal shipments of electronic waste.

6.3 Capacity building for relevant authorities at seaports should remain a key priority of the SESN.

Typically, the more experienced countries that participated in the Inspection Project used intelligence-led methods to help identify which containers to inspect. This methodology creates efficiencies in staffing and resources and can help increase rates of detection. However, not all countries have the information or capacity to make intelligence-led inspection determinations. The SESN, in cooperation with Interpol, the World Customs Organization, the Asian Network for Prevention of Illegal Transboundary Movement of Hazardous Wastes, and other partners, can continue to build capacity for the intelligence-led method, while at the same time working with countries to improve capacity for other types of inspections determinations. Capacity building for physical container inspections and other typical port activities also is essential and should continue in the future, including through on-site workshops, inspector exchanges, and other methods, as resources permit.

6.4 The SESN should continue to promote the importance of international and national collaboration among authorities.

Effective communication between import and export countries is a prerequisite for enforcement collaboration. To supplement formal communication channels, participants encouraged the use of informal means of communicating non-sensitive information. The SESN should continue to help build relationships among peer-level authorities to promote cooperation in both formal and informal ways.

Cooperation among environment, trade, customs, and other agencies is essential to an effective domestic hazardous waste inspections program. The SESN should continue to promote inter-ministerial collaboration through training exercises on the development and negotiation of memoranda of understanding (MOU) and provide sample inter-ministerial MOUs and other guidance.

## 7 CONCLUSION<sup>3</sup>

The illegal trade in hazardous waste remains a significant global environmental issue and compliance with Basel Convention provisions continues to be a challenge. The SESN Inspections Project confirms the usefulness of coordinated international enforcement actions in addressing this problem and in improving the capacity of enforcement authorities to detect and deter illegal shipments. As an informal network of enforcement practitioners, SESN has an important role to play in facilitating national and international collaboration among authorities and supporting their capacity building efforts.

## 8 REFERENCES

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<sup>1</sup> Hong Kong is a Special Administrative Unit of the Peoples Republic of China.

<sup>2</sup> The Environment Agency of England and Wales participated in the Inspection Project as well as the Scottish Environmental Protection Agency.

<sup>3</sup> The full project report may be found at:

[http://inece.org/seaport/exercise/INECE\\_SeaportInspectionProjectOutcomes\\_22dec.pdf](http://inece.org/seaport/exercise/INECE_SeaportInspectionProjectOutcomes_22dec.pdf).