REQUIREMENTS FOR EFFECTIVE SEAPORT ENVIRONMENTAL SECURITY: COLLECTIVE ACTION AT THE PORTS

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SUMMARY

Recent targeted enforcement actions coordinated by the World Customs Organization (WCO), the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) and the International Network for Environmental Compliance and Enforcement (INECE) have confirmed that illegal hazardous waste shipments are still occurring and are still a major concern for countries, regardless of the country’s level of development or participation in international trade. The image of leaky drums of hazardous chemical waste has been replaced, for the most part, by images of increasing volumes of hazardous electronic waste. Environmental and customs agency officials in West Africa and Asia were surveyed to identify their most critical needs for addressing the illegal hazardous waste trade. Officials in both regions identified the need for a clear definition of what constitutes a hazardous waste, increased collaboration with port counterparts at the national, regional and international levels, and more effective enforcement capacity through knowledge transfer on specific waste identification, interception and interdiction tools and techniques.

1 BACKGROUND

One of the objectives of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) is to reduce the number of cross-border hazardous waste shipments to the minimum necessary for environmentally sound waste management. National reporting data from the Basel Convention indicate that over 10.3 million tons of hazardous wastes were involved in legal transboundary shipments in 2006, an increase of 22% from 2004.1 These legal transboundary shipments are justified if the result is a higher level of environmental protection.

The amount of illegal hazardous waste shipments is harder to quantify, as only those shipments that are intercepted are reported. Numerous sources have reported that much of the illegal waste movement is controlled by organized crime.2 It is estimated that these criminal groups generate revenues of $1-2 billion (USD)/year from the dumping of hazardous waste.3 Multiple targeted inspection events coordinated by the WCO, IMPEL, and INECE4 confirm that the illegal hazardous waste trade is still a major issue for developed and developing countries alike.
There are numerous drivers for this illegal transboundary trade, including financial gain through less costly disposal options, circumvention of laws and regulations to avoid environmental controls or a lack of in-country environmentally sound waste management facilities.

Many shipments of legal and illegal hazardous waste pass through seaports while entering, exiting or transiting a country. In order to enhance environmental enforcement at seaports, the INECE Seaport Environmental Security Network (SESN) was formed in 2008. The SESN is a global operational network of officials responsible for environmental enforcement at seaports. The goals of this network are to build capacity, raise awareness and facilitate enforcement collaboration.

2 COLLECTIVE ACTION APPROACH TO COMPLIANCE WITH THE BASEL CONVENTION

The strengthening of compliance with multilateral environmental agreements has long been identified as an opportunity for collective action. Collective action, which simply defined is the working toward a goal by more than one person, is an appropriate way to look at the transboundary shipment of hazardous waste as it encompasses a global environmental problem that nations have collectively agreed to solve. This is especially true in the context of transboundary shipments of hazardous wastes and seaports. Collective action can be a force in addressing existing problems and preventing future problems from developing. Cooperation “occurs when actors adjust their behavior to the actual or anticipated preferences of others, through a process of policy coordination.” Each cooperating country is driven toward achieving a specific goal, and strives to gain something as a result of its policy adjustments. Elinor Ostrom, 2009 Nobel Laureate in Economic Sciences, advocates a particularly applicable approach to collective action, where the issues are addressed as close as possible to those responsible for managing the resource.

In the case of the Basel Convention, which has no supranational regulatory or enforcement authorities, each nation is required to implement the provisions of the Convention through its own national regulatory structure. Therefore, the characteristics of each nation will determine how and to what extent it conducts this process. Each country may follow a different path to implementation, and the unique social, economic and political characteristics of each country may help or hinder the success of this national effort. It is critical that a regulatory framework and an effective enforcement program be in place to allow detection and interception of illegal transboundary shipments of hazardous waste. Numerous entities, such as environmental ministries, customs agencies, ports and harbor authorities, Coast Guard and naval units, as well as economic agencies, may have authorities for environmentally regulated materials at seaports. Therefore, inter-ministerial cooperation, which incorporates collective action among government agencies, is essential to achieving the goals of effective environmental enforcement at seaports. At the same time, international collaboration is necessary to facilitate information and intelligence sharing on illegal shipments, shippers and trade routes.
3 NEEDS ASSESSMENT

3.1 Regional Focus

Asia and West Africa have historically been the recipients of illegal shipments, including hazardous chemical and electronic waste. In fact, incidents of illegal dumping of hazardous wastes in West Africa prompted the development of the Basel Convention. Dumping in these regions continues as evidenced by the 2009 Operation Demeter, coordinated by the WCO, which netted over 30,000 tons of illegal waste during a 50 day period.9

The enforcement professionals who comprise the SESN are responsible for the inspection and monitoring of all transboundary hazardous waste shipments arriving, exiting or transiting through their respective seaports. Therefore, their perceptions of the issues and challenges reflect a pragmatic view of what is needed at the port level to properly manage these shipments.

Officials from environmental ministries and customs agencies were surveyed in West Africa in 2009 (38 responses) and in Asia in 2010 (17 responses), at two SESN workshops. West African countries participating in the 2009 assessment, conducted in Accra, Ghana, included Benin, Côte d’Ivoire, Ghana, Nigeria, Senegal and Togo. Asian nations participating in the 2010 survey, conducted in Siem Reap, Cambodia, included Brunei Darussalam, Cambodia, China, Indonesia, Lao People’s Democratic Republic, Malaysia, the Philippines, Singapore, Thailand and Vietnam. Tracking of specific country responses was not required as the purpose of the assessment was to identify regional opportunities for new or existing SESN tools, resources and assistance.

3.2 Structure of Needs Assessment

Prior to the two regional workshops, at the 2008 SESN kick-off meeting, network participants identified four areas that needed improvement at the ports. These included enhancing the ability to exchange information both nationally and internationally; assistance in interpreting the Basel Convention provisions, as well as national laws; international collaboration among all entities responsible for enforcement at seaports; and increasing the exchange of experiences and knowledge. In order to understand how these improvements could be implemented in the field and to aid in achieving a common understanding of the issues, specific definitions of each of these concepts were incorporated into the survey questions of the needs assessment:

1) Communication: Being able to communicate between authorities and countries to follow illegal shipments and better understand the transboundary life cycle of hazardous waste from origin to final disposition.

2) Capacity building: Developing and improving the skills and knowledge of port inspectors and regulators through the use of specific initiatives and tools.
3) **Collaboration**: Specifically targeting informal cross-border collaboration between officials of enforcement agencies that can help disrupt the illegal hazardous waste trade.

4) **Port inspections**: Addressing specific obstacles to effective port inspections that can support compliance with the Basel Convention and national hazardous waste legislation.

## 4 RESULTS

### 4.1 Communication

There was overwhelming agreement in both regions that communication lines need to be established to facilitate the exchange of data. In West Africa, most of the respondents indicated a desire for cross-border communications, in addition to communications at the national level. This is most likely reflects concern over the practice of port hopping along the coast of West Africa, which occurs due to the geographic proximity of the ports. Collective action among West African countries is the only effective solution to this problem, for if one country develops a strong import inspection program with the ability to identify and reject suspect or illegal shipments, the waste shipper will look for another nearby port that will allow the illegal cargo to be off-loaded. Collectively communicating information on these shipments can help alert the other ports to the incoming hazardous cargo.

In Asia, the needs assessment indicated a fairly even division of opinion between the need for communications at the national level, the cross-border/bilateral level and the regional level. Respondents expressed interest in continuing and improving communications among the Secretariats of the Basel, Rotterdam and Stockholm Conventions, as well as with regional organizations such as the Asian Network for Prevention of Illegal Transboundary Movement of Hazardous Waste (Asian Network), SESN, and the Regional Intelligence Liaison Offices and Customs Enforcement Network of the WCO. Collectively working with the shipping industry was proposed during the Asian workshop as a possible means of disrupting the illegal waste trade.

In West Africa, respondents preferred information sharing at the shipment/container level, followed by verification requests, which include information on permits, licenses, bills of lading, invoices, manifests and other container-specific information. Asian seaport officials requested updated national contact lists as their number one need. Language may be a barrier to effective communication; for example in South East Asia, there are at least twelve primary languages, creating the potential for miscommunication of verbally exchanged data and information. Therefore, e-mail, which provides a permanent record that can be translated, may help overcome language barriers, and was identified by the Asian officials as the preferred means for sharing information along with protected websites. The value of personal contacts among enforcement counterparts in other countries was recognized by both regions as being very valuable.
4.2 Capacity Building

There was a unanimous call for enforcement capacity building activities by both West Africa and Asia. When identifying areas of focus, West African respondents highlighted development of waste shipment legislation, inter-agency collaboration, risk and threat assessments, inspection methods and inspector exchange programs almost equally. The West African respondents identified long-term needs, such as the development of international protocols and implementing legislation, as well as hazardous waste management standards and projection of the need for long-term treatment sites.

Asia respondents identified inspection methods, followed by inter-agency collaboration, as the region’s top priorities. Identifying what constitutes a waste is a complex process due to differences in national legislation, and it is an area the Asian participants flagged as problematic. The procedure for repatriation of rejected shipments of waste, where the waste is returned to the originator, was also identified as an issue in the Asian region. Intelligence-led enforcement emerged from the 2010 Asian workshop as a potential new tool for selectively targeting illegal shipments, and making the best use of limited inspection resources.

4.3 Collaboration

The need to intensify cross-border collaboration was identified by all respondents. Both regions identified an active network, with regular meetings, as the vehicle to achieve this collaboration. West African respondents suggested regular telephone conferences to facilitate timely exchange of data, a website and “task teams” to follow up on issues of common interest. The Asian survey respondents also placed a high priority on online and virtual collaboration as well as coordinated enforcement activities at ports, such as the SESN International Inspection Month project, conducted at the international, regional and domestic levels.

4.4 Port Inspections

Port inspections represent the enforcement aspect of collective action - what Ostrom refers to as the sword of collective action. Although communication has been determined to be an important component of effective collective action, this effectiveness is increased when the participants also impose a sanctioning method through enforcement. The range of survey respondents includes those countries with well-established inspection programs to countries that have much less experience with seaport inspections. Yet all the officials responded that they face obstacles to inspection of hazardous waste shipments at their ports. West African respondents identified lack of capacity as their primary obstacle, followed closely by a lack of collaboration. Also identified was a lack of tools, information, and knowledge as well as problems with interpretation of laws and waste definitions, listed in order of decreasing importance. The Asian respondents identified lack of information as their number one obstacle to effective port inspections, resulting
from confusion over waste definitions and a lack of information on wastes imported into their respective countries. Problems with interpretation of laws and definitions, as well as a lack of capacity, training, and collaborative opportunities were also priorities, listed in order of decreasing importance. Interestingly, there was little priority given to the lack of relevant law as an obstacle to port inspections; however, interpretation of existing laws and definitions was given a high priority.

5 MEETING THE NEEDS OF THE PORTS

It should be understood that the responses to the needs assessment represent the viewpoints of the individual officials surveyed based on their unique experiences and personal observations and may not necessarily reflect the official position of their governmental agency. Moreover, the survey information collected by SESN is geographically specific and limited to the participants of the two SESN workshops, so the information may not represent a more global population of government officials. However, the similarity of experiences, challenges and suggested solutions may indicate that a regulatory or policy change is needed.

Even with these limitations, the information gathered during the INECE needs assessment offers a unique view into inspection operations at seaports. Understanding the “view from the port” goes a long way to developing the right enforcement tools that are capable of providing the greatest impact. The results indicate that similar constraints to implementation of the Basel Convention exist in both West Africa and Asia. In order for these regions to collaboratively design strategies to overcome these constraints, the enforcement officials will need information, a forum where they can discuss this information and develop strategies, and the ability to initiate implementation of monitoring (port inspections) and sanctions (legal action), two components of enforcement. The initiation and maintenance of global and regional networks, suggested by the survey respondents, can provide these forums and facilitate the communication and collaborative relationships that lead to effective seaport environmental security.

Although priorities may differ, certain themes emerge that are common to both Asia and West Africa:

1. Both regions called for more clarity regarding the definition of what constitutes a hazardous waste. The confusion caused by the lack of a common definition, especially in relation to what constitutes a second-hand good versus a waste, has been highlighted at meetings of the Asian Network and the SESN. This lack of clarity leads to difficulty in properly classifying a waste shipment upon arrival at the port. The development of documentation, either as training materials or visual aids, that explain the process of determining what a waste is and what a waste is not, along with real-world examples, would be a useful tool for officials at the port.

2. Increased collaboration among national agencies responsible for port security as well as with international partners, including the Secretariat of the Basel Convention and regional and global networks, is needed to disrupt and deter the illegal
waste trade. If ports act alone, they lose the benefit of shared information and intelligence on modes of operation, preferred trade routes and identities of those responsible for the illegal shipments.

3. **Informal communications can be very effective in the exchange of information, but these communications require access to updated national and regional contact lists**, which were requested by respondents in both regions. An important role of the regional and global enforcement networks, such as the Asian Network and the SESN, is to foster development of informal communications between port authorities. Effective communication and collaboration is difficult to achieve but can lead to innovative problem solving, providing individuals know one another and build a level of mutual trust, are able to communicate with one another and believe the other person will act cooperatively when a situation arises. The personal relationships, established through informal networks, will have a positive effect on the amount of information exchanged and can help dissolve any barriers to effective cross-border collective action. However, if some of the involved entities do not participate in the network, the collective action is likely to be less effective and could allow for weak links in regional enforcement to exist, which could be exploited by unscrupulous waste shippers. This is where inclusive regional networks, which foster cooperation, not competition, may be especially effective.

4. **More enforcement capacity is needed at seaports**, particularly in areas of understanding waste shipment legislation, risk and threat assessments, cargo inspection techniques, and inter-agency collaboration agreements. There are a number of ways to conduct training to advance knowledge at the ports. Conducting inspector exchanges is a highly individualized, although costly, means of training port inspectors. Regional workshops can offer specialized training to attendees. On-site training at the ports is an option, but like the inspector exchanges is more individualized and therefore more costly. Train-the-trainer programs may be an effective way to increase sustainability of on-site inspector training. On-line training is a method to reach the maximum number of customs and port officials, who can take courses at a time and place that will not adversely impact their responsibilities “on the line”. On-line training modules can be designed to be customizable to a country’s specific needs and can be translated at minimal cost. Learning, combined with interaction, will lead to a greater ability to identify, interdict and deter the illegal waste trade, while allowing management of the legal waste trade in an environmentally sound manner.

6  **CONCLUSIONS**

Collectively working together to monitor transboundary shipments of hazardous waste can be an effective way to increase a port’s ability to promote compliance and enhance enforcement through consistent implementation of environmental laws and regulations. The use of informal networks, such as the SESN and the Asian Network, may bring together people of both similar and diverse interests, facilitating action that revolves around cooperation, not competition. Countries in the same geographic region, such as South East Asia or West Africa, will have a
bigger stake in communicating with a neighboring country when transboundary environmental effects need to be considered. The personal relationships developed through informal networks can have a positive effect on the amount of information exchanged and can help dissolve cultural and language barriers. Participants in the collective action are far more likely to be better informed if they communicate with other participants, with face to face communication increasing the efficiency of a collective action.

7 REFERENCES

7 Keohane, R., After Hegemony, Cooperation and Discord in the World Political Economy, 1984, Princeton University Press.
11 Ibid.