INTERPOL | ENVIRONMENTAL CRIME PROGRAMME

INFORMATION MANAGEMENT

STRATEGIC ANALYSIS REPORT ON ILLEGAL EXPORT OF ELECTRONIC WASTE TO NON-OECD COUNTRIES

Environmental Crime Programme

The INTERPOL Environmental Crime Programme:

- Leads global and regional operations to dismantle the criminal networks behind environmental crime using intelligence-driven enforcement;
- Coordinates and develops international law enforcement best practice manuals, guides and other resources;
- Provides environmental law enforcement agencies with access to our services by enhancing their links with INTERPOL National Central Bureaus;
- Works with the Environmental Crime Committee to shape the Programme's strategy and direction.

Information Management

Intelligence-led enforcement is emerging in INTERPOL member countries as a new and targeted approach to environmental crime.

Within this model, sensitive enforcement information is collected, recorded, evaluated and analysed via INTERPOL's unique resources. It is then placed in context of publicly available relevant socio-economic information. This enables both INTERPOL and national decision-makers to proactively identify high-risk areas and persons and to devise tailored activities and operations in response.

The intelligence-led approach aims to conduct its activities using three distinct production processes, leading with information management and analysis, combined with operational activities and support and finally reinforced with capacity building. These three distinct processes interlink in a cyclic manner, driving and maintaining momentum for one another.

Strategic Analysis Report on Illegal Export of Electronic Waste to non-OECD Countries

This factsheet provides a briefing on the INTERPOL Global E-Waste Crime Group Phase III Strategic Analysis Report on Illegal Export of Electronic Waste to Non-OECD Countries. A full version, marked INTERPOL For official use only can be obtained from your INTERPOL National Central Bureau (reference 2011/376/SCA/PST/ECP/CRP) or downloaded from our restricted website. To obtain access to our restricted website, please fill out the application form.

Introduction

The electronics industry is the world's largest and fastest growing manufacturing industry. As a consequence, e-waste is now one of the fastest growing waste streams in the industrialized world. To protect human health and the environment, legislation has been put in place to ensure the proper management of e-waste. Conversely, avoiding these regulations can bring considerable profits and the risks of getting caught when compared to other criminal areas are relatively low. These two important factors make the illegal export of e-waste attractive to companies and criminal groups.

In the period 2010 - 2011, the INTERPOL Environmental Crime Programme has gathered information concerning the illegal export of e-waste within the framework of the INTERPOL Global E-Waste Crime Group project. The objective of the strategic report is to present the baseline analysis of the information made available to INTERPOL. The report additionally makes recommendations on improving intelligence sharing and increasing the information provided to INTERPOL concerning e-waste.

A better insight into this crime area is the basis on which intelligence-led enforcement can be introduced and global joint investigations can be set up in order to effectively track down the worst offenders and potential organized crime groups involved. More insight will also assist in the development of sustainable solutions in regards to awareness, prevention, intelligence and enforcement of e-waste related crime within member countries. The multifaceted approach therefore aims to create a deterring impact on further development of illegal trade in e-waste.

Background

The INTERPOL Pollution Crime Working Group (PCWG) undertook a phased project in 2006 to identify and demonstrate the linkages between organized crime and pollution crime. In Phase I of the project, 35 case studies were collated providing examples of illegal import/export of waste, illegal hazardous waste disposal and illegal movement of ozone depleting substances. As a result, an initial evidence base to link pollution crimes with organized crime was established.

The recommendation for Phase II was therefore to select a particular type of waste on the basis of a number of provided factors. These factors included clearly related environmental impacts, significant volume of activity, significant profit, at least three global regions involved and the availability of at least a robust data collection. The trade and export of e-waste to developing countries fulfilled the stated criteria.

The Phase II report "Electronic Waste and Organized Crime - Assessing the Links" was published in 2009 and revealed the large potential for informal networks of criminals to make profit from the illegal export of e-waste to developing countries. What emerged was a picture of an industry in which unscrupulous operators are able to profit from disposing waste cheaply and illegally abroad, instead of taking the environmentally responsible and more expensive option of proper local recycling.

Due to the still very limited information available about the trade in e-waste at that time, the Phase II report should be considered only as an initial exploratory investigation of the crime area. It was strongly recommended that more research should be carried out.

In 2009, the project group was renamed the INTERPOL Global E-Waste Crime Group following the Phase II recommendations and its mission was established as follows:

- Further investigate the links between E-waste and organized crime
- Introduce an intelligence-led approach and perform tactical analysis
- Provide sustainable integrated solutions for awareness, intelligence, prevention and enforcement for the member countries
- Set up intelligence-led global joint operations and apprehend the worst offenders

In order to achieve the above-stated goals, the first emphasis of the project's Phase III has consequently been to gather intelligence and improve the information position of INTERPOL. In order to bring together all relevant partners and initiate this intelligence campaign, INTERPOL organized the Global E-waste Crime Conference in Virginia, US, May 2010, co-hosted and funded by the United States Environmental Protection Agency and additionally funded by the Swedish Environmental Protection Agency.

Objective and Research questions

The objective of this analysis was to provide strategic and, if possible, tactical insight into the illegal export of e-waste worldwide substantiated by the intelligence gathered by INTERPOL and make recommendations on how the relevant global information position can be further improved. The main research questions were defined as follows:

1.   What are the driving factors behind the illegal trade of e-waste?
2.   What is the scale of the illegal trade in e-waste worldwide?
3.   What are the trans-border movements of illegal e-waste?
4.   Who is involved in the illegal trade of e-waste?

Scope and limitation

The most important data source utilized in answering the identified research questions was the intelligence provided by the member countries to the INTERPOL Environmental Crime Programme in the period May 2010 - May 2011. This information was provided by participating law enforcement agencies through INTERPOL's secure global network I-24/7 via their INTERPOL National Central Bureau.

A total of 97 transmissions were received during the period May 2010 – May 2011. The data set provided by these transmissions is relatively small to provide fully substantiated answers to the research questions. Moreover, nearly 60% of the transmissions were provided by the project's leading organization during this phase, the Environment Agency of the United Kingdom.

Open source information was also explored to place the INTERPOL enforcement information, formally received from the member countries, in a broader perspective, including the legislative framework and quantitative estimations of waste flows.

The Environmental Crime Programme is an externally funded operational unit of IPSG and relies solely on the voluntary contributions of a small number of member countries and non-governmental organizations. Although efforts have been made since May 2010 to attract project funding from governmental agencies and stakeholders to provide a dedicated intelligence team to the Global E-Waste Crime Group, no such funding has been secured to date. Therefore, only limited initiative could be undertaken to conduct follow up on transmissions that were incomplete or gave rise to additional questions.

Due to a strategic re-allocation of a limited part of the operational budget provided by the Dutch government, in the second quarter of 2011 the Environmental Crime Programme was able to analyze the available data on an ad-hoc basis through an external experienced crime analyst.

As a result of the aforementioned aspects, this report merely reflects the information position of INTERPOL mid-2011 on the illegal export of e-waste and does not presume to give a complete picture of the crime area.

Conclusions (sanitized)

This analysis aimed to provide substantiated insight into the illegal trafficking of electronic waste and to provide the INTERPOL Global E-waste Crime Group with sufficient input to make tactical choices for further focus on high risk sub-streams, routes, border-crossings and target groups in the chain of supply and demand.

The intelligence provided has not allowed for an in-depth representative analysis due to the relative small percentage of the participating agencies in a limited number of member countries that shared their intelligence. Furthermore, the INTERPOL Environmental Crime Programme currently does not have the required permanent capacity for pollution crime to structurally follow up on intelligence reports that contain omissions.

However, on the basis of the available information, the following conclusions can be drawn.

Motivation behind illegal export of e-waste

The illegal export of e-waste is driven by the differential cost and added value as well as by loopholes in legislation and law enforcement. Differential cost is caused by the lack of regulation concerning the treatment of e-waste, and therefore, a lack of cost and the low labor cost in the destination countries make the repair of e-waste items affordable. The added value is caused by the demand for e-waste in the destination countries while this demand, with the exception of the raw materials, does not exist in the generating countries.

Difficulties in enforcement make the illegal export possible. Certain countries are still considering signing or ratifying the international legal instruments in order to introduce harmonized national legislation. Secondly, not all the parties to the Basel Convention implemented its articles in their national legislation, making enforcement on imports and exports challenging. Furthermore, the distinction between EEE for re-use and e-waste for custom authorities is often hard to distinguish. Regulations to improve the ambiguity have been created within the European Union but not yet legally entered into force. Lastly, the international cooperation in enforcing the illegal export of e-waste can be enhanced.

Two different markets can be distinguished as a destination for e-waste. In one market e-waste is traded for re-use, eventually after repair. What industrialized countries consider to be e-waste still have a considerable value in developing countries. As new electrical or electronic equipment in these countries is often too expensive to purchase, a flourishing trade exists in second hand EEE. High unemployment and low labour cost, contrary to industrialized countries, makes it profitable to repair e-waste. When repair is not possible parts are kept for future repair or sale. Useless parts are disposed of in landfills without any cost due to a lack of regulations concerning the treatment of e-waste. This demand for re-use is usually the case with exports to the African continent.

The second market concerns the export of e-waste to newly industrialized countries in Asia. These countries are known for their high production of electric and electronic equipment and have therefore a high demand for raw materials. Buying these raw materials on the world market is expensive as they pay for the raw materials after recycling. It is therefore more profitable to buy used EEE and e-waste in Europe and North America containing these raw materials and have them recycled in the "informal recycling sector" in Asia.

Scale of waste

E-waste is one of the fastest growing waste streams in the industrialized world. It is estimated by StEP that a volume of 41.8 million tons of e-waste was generated in 2010. The European countries and North America are responsible for approximately 50% of the known value of e-waste. The percentage of e-waste in newly industrialized countries such as in South and Southeast Asia is growing and is estimated to have reached 25% in 2010.

Unlike countries in Europe and North-America, newly industrialized countries appear not to export generated e-waste as high demand for e-waste continues to exist in these countries.

Estimations concerning the volume of the illegal export to non-OECD countries are difficult to make as complementary streams exist and are not known in detail. The European Environmental Agency has, by escalating the outcome of two national surveys, estimated the illegal WEEE exports from Europe to non-OECD countries to be at least 300.000-500.000 tons.

Trans-border movements

The main routes that can be distinguished from information received through official channels are the North-to-East route and the North-to-South route. The North-to-East route has South East Asia as the main destination. It is reported that in this region new televisions are produced with used CRTs and this together with the expensive treatment cost for CRTs in generating countries might be the drive for the significant flow of CRTs to this region.

The North-to-South route can be geographically divided into West Africa and East Africa. Although other African countries have been introduced, two West African countries remain the main destination countries. As the export is mainly for re-use, a mixture of goods is seen, varying from household goods to IT equipment.

The use of these routes is further supported by open source information.

To avoid the discovery of the illegal export, the e-waste is often mislabelled. WEEE in European countries is often declared as used EEE. Furthermore, e-waste (as well as CRTs exported out of North America) is declared as plastic or metal scrap or electronic parts. WEEE exported form European countries to Africa is sometimes smuggled in end of life vehicles and not declared at all.

Entities involved

The involvement of organized crime groups in this trade could not be determined on the basis of the formal information gathered in Phase III of the project. As to cross-linking with other crime types, the information implies that illegal export of e-waste can include forgery of customs and export documents, fraud and corruption. Instances of forgery and corruption were explicitly seen in the information gathered.

The above conclusions are drawn from the information reported to INTERPOL within the INTERPOL Global E-waste Crime Group in the period of May 2010-May 2011. Despite the increase of information gathered, it is estimated that the dataset reflects an estimated 2% of the estimated volume exported from European countries to non-OECD countries. This illustrates the large information gap linked to the limited understanding of the nature of the illegal export of e-waste and the entities involved. Moreover, the information provided often showed crucial omissions for adequate analysis.

A number of reports made by non-governmental organization exist which allow for additional understanding of the criminal profiles of the entities engaged in illegal trade of e-waste.

Recommendations

Extensive information provided to INTERPOL by member countries is required to further establish the intelligence-led enforcement necessary in order to identify worst offenders or criminal networks. This would in turn allow for the allocation of scarce resources to high priority (joint) enforcement interventions. To improve the effectiveness of the INTERPOL Global E-waste Crime Group, the following recommendations are made.

Determine intelligence products

As a first measure, all the necessary intelligence products (i.e., risk assessment models, strategic analysis, tactical analysis) have to be clear and consistent in order to be able to determine what information has to be collated.

Strategic analysis

The purpose of this type of analysis is to provide information at the "strategic level" so that intelligence-based policy can be carried out on a specific subject. The strategic analyses can draw an overall picture of a certain crime type or focus on a special issue.

An overall picture contains at least information about the motive (drivers), scale, nature and involved entities. Therefore, the outcome can lead to tactical analysis on the specific subject.

Tactical analysis

The purpose of this analysis is to target operations and enforcement resources to optimize the deterrent effect on the crime.

Increasing information flow

In order to carry out both strategic and tactical analyses, the information flow has to increase and be consistent in manner. This translates to not only being consistent in the number but also in the diversity of countries providing information. The information provided would therefore reflect a more accurate representation of the illegal export of e-waste in the member countries. Therefore, member countries should be actively approached to stimulate reporting of e-waste cases.

Improving the quality of information

It is imperative that the information provided is of good quality. This implies that all the information concerning the persons, companies, cargo, volume, route, modus operandi and a small description of the case should always be provided.

Extending the information collated

While carrying out the analysis, crucial information was found not to be collated. It is therefore recommended that the following fields be added to the Ecomessage template:

- role of a person / company in a case
- links to other types of criminality and criminal history
- route: country of origin / place of origin /exporting port / transit country / transit port/ destination port / final destination country / final destination place

Cooperation with strategic stakeholders

As important information is held by strategic partners, close cooperation is recommended with the following organizations:

- World Customs Organization – custodian of a database of seizures and concealments and can provide information on trans-border movements and modus operandi
- UNEP / StEP - currently collating information about the quantity and nature of e-waste; they are also involved in research concerning the recycling industry in the Netherlands. The sharing of information would therefore provide a better insight into the sector
- European Environmental Agency - publishers of reports on various types of environmental issues, among others the Trans-border movement of waste form European countries

Joint-operations

The World Customs Organization is an important strategic partner for INTERPOL as it is the authority monitoring the import and export of goods. Therefore, joint operations could prove both the efficiency and effectiveness of the task at hand. Tactical analyses of geographical targets can help direct these operations which often result in more information and which further feed intelligence-led enforcement responses.

Systems

A suitable tool to perform analysis is indispensable for a tactical analysis. Therefore, the i2 Analyst workstation is recommended. It includes Ibase as a database, Analyst Notebook as a visualization tool and GIS as a geographical tool. The INTERPOL Environmental Crime Programme is introducing the i2 Intelligence Suite in 2012 into its information management process.

Resources

Most of the aforementioned recommendation can only be implemented effectively if and when the INTERPOL Environmental Crime Programme can secure adequate resources to run a large scale, multi-year project at the INTERPOL General Secretariat to combat the illegal trafficking of hazardous wastes, including E-waste.

In its objective towards a sustainable financial position, the Programme has followed two parallel and complementary strategies:

1. Securing a threshold core staffing for generic production processes (Capacity building, Intelligence, Operations)
2. Securing topic specific funding for large scale multi-year crime projects in the Programme that are financially self-sustaining but can rely on the core staff and systems for primary processes management, know-how and continuity

This has since 2009 resulted in:

1. A minimum core staffing, thanks to the continued contributions of environmental law enforcement agencies in the Netherlands, the Unites States, Canada and Brazil
2. 4 Large Scale Funded Projects that will run over multiple years and that target illegal logging (LEAF), conservation of Elephants and Rhinoceros (WIDSOM) and wild tigers (PREDATOR), illegal fishing (SCALE)

The aforementioned projects, are mainly related to the illegal exploitation of flora and fauna. A large scale project on pollution related crime, with the equivalent in-house capacity is currently still lacking and the Programme's efforts on this crime type are still relying solely on a minimum core staff and the much appreciated in-kind support of the member country environmental enforcement agencies through the Environmental Crime Committee's Pollution Crime Working Group.

It should therefore be a top priority in 2012 to attract and secure funding to enable the Environmental Crime Programme to execute a large scale in-house pollution crime project.

Therefore a new project proposal has been designed, under the working title 'Project GATEKEEPER' that aims to establish this capacity at the Environmental Crime Programme. The general approach of this project is consistent with the strategy of the other ECP projects in that it aims to address the problem on three levels of engagement:

1. Improved political will
2. Enhanced departmental support
3. Professional officers; skills and operational responses

We believe this 3 step approach is has the highest potential to mitigate the most important obstacles that stand in the way of effective enforcement:

•   Lack of Resources
•   Lack of Knowledge and Skills
•   Lack of Communication, Cooperation and Coordination,
•   Lack of Integrity, better known as Corruption

Not before the issue of environmental crime is placed firmly on the political agenda with the appropriate priority, will departments support investment and allocation of adequate resources to the environmental enforcement chain. And only with the persistent senior managerial support will investments in people and skills as well as in multi-agency and international cooperation become effective and sustainable.

An advocacy portfolio for the proposed 'Project GATEKEEPER' is available at request through environmentalcrime@interpol.int.