

IMPEL-TFS THREAT ASSESSMENT PROJECT:

**THE ILLEGAL SHIPMENT OF WASTE AMONG IMPEL
MEMBER STATES.**

PROJECT REPORT

MAY 2005



IMPEL

The European Union Network for the Implementation and Enforcement of Environmental Law is an informal network of the environmental authorities of EU Member States, acceding and candidate countries, and Norway. The European Commission is also a member of IMPEL and shares the chairmanship of its Plenary Meetings.

The network is commonly known as the IMPEL Network
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The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on certain of the technical and regulatory aspects of EU environmental legislation. The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. It promotes the exchange of information and experience and the development of greater consistency of approach in the implementation, application and enforcement of environmental legislation, with special emphasis on Community environmental legislation. It provides a framework for policy makers, environmental inspectors and enforcement officers to exchange ideas, and encourages the development of enforcement structures and best practices.

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<p>IMPEL-TFS THREAT ASSESSMENT PROJECT: THE ILLEGAL SHIPMENT OF WASTE AMONG IMPEL MEMBER STATES.</p>	<p>April 2006</p>
<ul style="list-style-type: none"> • Project Manager Environment Agency, England and Wales <p>Project Group Members: UK, IR, Netherlands, Sweden, Czech Rep, Malta,</p>	<p>Report adopted at IMPEL Plenary Meeting: May 2006 Vienna</p> <hr/> <p>Pages: 104 Annexes: 4</p>

Executive Summary

The Report looks principally at illegal movements of green list, post consumer wastes. Data on these waste movements but this Report is based on a number of sources including; Questionnaire, literature survey and discussions between member countries. It concludes that there is a significant level of illegal exports of waste both from IMPEL Member countries but also to Member countries with low enforcement capacity. It reviews Threat Assessment methodologies and presents a number of figures and data based on these methodologies. It highlights the lack of data on the scale and breadth of illegal waste movements but makes some conclusions based on the data available and gathered during drafting of the report. There is some evidence that organised crime are involved in some locations but that the main reasons for illegal trans frontier shipments of waste result from weak enforcement due to lack of regulator enforcement capacity, lack of domestic recycling facilities, inconsistent interpretation of the [complex] legislation. The Results of the investigations will be of interest to the Commission, IMPEL Members and policy makers within Member Countries. The Report makes a number of Key Findings in the categories of ; Gaps in Intelligence, Nature of those involved in the [illegal] trade, and Co-operation and Collaboration [between Agencies]. Recommendations made are numerous and include suggestions for further work either led by the Commission or by IMPEL or by others. Some of the Recommendations have already been considered by IMPEL based on earlier drafts and have been built into the Multi Annual work Programme of the IMPEL TFS Cluster. There are also links to significant other projects the Cluster have been involved in recently, notably the Sea Port II project which has helped generate more data on the scale of illegal activity and justified some of the comments and findings within this report. The Report highlights the threats from illegal trans frontier shipments of waste and provides methodologies for MS's to assess these threats.

Disclaimer

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PROJECT REPORT

*This report was commissioned by the Environment Agency for England and Wales for the
IMPEL TFS Network.*

Written by

Sarah Czarnomski and Barry Webb
Jill Dando Institute of Crime Science
University College London.
www.jdi.ucl.ac.uk

AND
Alan Holmes

supported by colleagues of the
Environment Agency, England and Wales
www.environment-agency.gov.uk

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EXECUTIVE SUMMARY

1. Background

Generally environmental crimes, including the illegal abandonment of waste, can cause significant harm to the environment and human health. They also affect the economic viability of lawful businesses who do comply, through lost income and it undermines international policy on waste trade. It is therefore important to take action to detect and prevent illegal traffic in waste, especially where it crosses national borders and has the potential for adverse impact on developing countries.

Paper and plastic wastes exported from IMPEL member states has increased dramatically over the past 5 years and indications are that this growth will continue. Waste regulators comprising the IMPEL-TFS group, have been concerned that a significant proportion of the waste exports to non-OECD countries may be illegal. Other IMPEL-TFS investigations and individual EU member states studies have recently suggested that as much as 85% of non-hazardous waste is shipped illegally or non-compliant, whilst initial findings of IMPEL Sea Port II project suggest a figure around 40%.

The IMPEL cluster involved with the transboundary shipments of waste (IMPEL-TFS Network) therefore developed this project, initiated in 2003, with support from the European Commission.

The purpose of the project was to

- to scope the knowledge and perceptions of IMPEL Member States and to establish the approach Member States are taking to tackle illegal activity
- to encourage Member States to adopt a systematic approach to estimate illegal waste activity, using as a model the techniques of “threat assessment” used extensively by law enforcement agencies such as the police and customs,
- to examine the scale of illegal traffic in waste arising within Europe and to understand the threats and harm resulting from it.
- and therefore to identify whether a systematic data driven study of particular concerns highlighted in this study may be appropriate in the future

The project consisted of:

- A questionnaire survey of IMPEL Member States about their experiences relating to illegal waste shipments, to provide an overview of their views on the problem across the EU, and
- A review of national Threat Assessments regarding illegal waste shipments, on paper and through meetings with IMPEL states, to examine in more depth particular problems affecting individual countries, and

- A review of other related materials and projects carried out within, by or on behalf of IMPEL states and other relevant bodies, to identify other related works, and
- Discussions between project participants from IMPEL member countries.

2. Results

International trade in waste is rapidly increasing. So also is the level of illegal international trade but there is little data to substantiate this. However during the drafting of this report more intelligence was being discovered especially by IMPEL within its other work.

There are a number of drivers which may result in increasing illegal traffic. Work within the project identifies the increasing volume of exports and some of the drivers that may promote illegal exports.

Only a small number of countries have made an assessment of the scale and threats from illegal international traffic. Those countries include Germany, Norway, Sweden, Netherlands and UK. Extracts from and summaries of, some of these studies are annexed to this report. Three national Threat Assessments/problem profiles were made available for this project (UK, Sweden, Netherlands). In addition, two other Member States (Czech Republic, Malta) were able to identify and talk about key issues for their countries in the meetings held with member states. Three other IMPEL members (Germany, Finland and Norway) have carried out threat assessment work but the nature and scope of this work was not identified by this project (Germany later provided material and has therefore been referred to).

IMPEL TFS have however recently considered lessons learnt from this study to be worthwhile, and are to follow up some specific issues in more detail. Notably this includes the use of threat assessment models to investigate specific waste streams and destinations.

There have been a number of linked studies, some of initiated by the European Commission, concerning the role of organised crime. Although not conclusive, conclusions from these studies does suggest some level of organised crime in transfrontier shipments of waste although data is poor and awareness of enforcement authorities low.

Lack of good data and information on the issues under investigation was clear from the returned questionnaires. The need for data and information within enforcement agencies are key requirements for effective regulation.

Division of responsibility for enforcement for TFS between different regional and national organisations appeared to present a barrier to the provision of comprehensive information in response to the questionnaire survey. However Sweden, Belgium and the Netherlands were an exception to this general position and were able to provide comprehensive responses demonstrating that such divisions do not necessarily have to present barriers to enforcement.

The overall response rate to the questionnaire survey was low. 13 of the 26 IMPEL member states contacted did not reply, despite follow-up actions. Two returned questionnaires were also less than half completed. Although issues over language differences, translation, and correct targeting of the questionnaire may have been factors in the level of response, it seems likely that an inability to answer the questions was also a significant factor. This seemed especially apparent in countries where responsibility for enforcing TFS was dispersed between different national and regional organisations. This may be indicative of the lack of data or compiled information as highlighted in the above paragraph.

Data scarcity is therefore the limiting factor in this report.

Of the member states who responded most were concerned with and had focussed their efforts on, illegal shipments of waste to developing countries. Some illegal activity has also been found to include waste movements to new EU Member States from other parts of the EU.

3. Key Findings

Gaps in Intelligence

1. *Poverty of data on the scale and nature of the problem is evident.* 49 illegal waste streams were identified but with only 12 where any volume of waste provided, and most were vague estimates. IMPEL Member States do not have any reliable or consistent means of estimating the volume of illegal waste movements into, out of or across their jurisdiction. The majority of waste movements that take place in practice are not subject to pre-notification requirements and therefore member states do not have any ready means to estimate the volume of legal, let alone illegal, waste movements.
2. Low response rate to the survey itself may be indicative of problems such as lack of data but may also indicate a lack of ability of, enforcement agencies within Member States or between Member States, to *communicate effectively* with each other on this issue.
3. Member states are only really able to give *reliable data* on legal movements of waste subject to notification requirements. In the absence of comprehensive studies – which don't appear to have been carried out by any of the member states contacted – it is difficult for states to reliably identify the scale and nature of legal movements of Green List waste not subject to notification requirements.
4. There is a *poor understanding* of the nature of the trade and the mechanisms applied to international waste shipments. There is a need to understand or example the economic, capacity and other factors driving the trade and the role of the parties (brokers, shipping agents, etc.) involved.
5. Lack of data also on the scale of traffic and the degree of *economic harm* caused to a) IMPEL MS's and b) developing countries.

6. There is also a distinct lack of information on *what happens to waste exported*, both legally and illegally from the EU to non-OECD states. We don't currently have a reliable means to establish the extent of environmental harm caused by such exports in those destination states. For example we do not have information and data on what actually happens to the waste that is exported and when it reaches its destination.
7. *There was little indication that individual countries interrogate their national import and export information* recorded by customs using international nomenclature for goods. There are in any case, few specific waste codes in this coding system. Shipments of 'waste' data therefore need to be interpolated from commodity codes.
8. *There is a disparity in interpretation between 'waste' and 'second hand goods'*. Several waste streams, in particular WEEE and ELV, are shipped to both non OECD states and other IMPEL Member States often under the guise of 'second hand goods' whilst there are different interpretations between enforcement agencies.

Nature of those involved and trade

9. In relation to the legal transfrontier movement of waste, *Member States have very different profiles*, both in terms of the nature and volume of waste handled and the waste chain involved within importer/exporter/broker/etc. Destination and transit routes are also different in many cases.
10. Among countries that participated there is *little evidence to suggest links to organised crime* although there is anecdotal intelligence to suggest links with organised crime in some MS's.
11. The busy ports of Belgium and the Netherlands are *hub ports* for waste movement within the EU and beyond and are where most violations are detected. A better analysis of the legal waste trade and market would help identify the opportunities being exploited by illegal traders and shippers, and identify where *enforcement activity might most effectively be focused*. Without such a view at the EU level, it is hard to see where intervention might be targeted to have the biggest impact across the EU.
12. *The illegal movement of waste needs to be addressed not as a single problem but as a number of different kinds of problem*, each exploiting different opportunities. The member states questioned identified many different types of illegal waste movement and many different reasons as to why such illegal movements might take place. Therefore there would not seem to be any single solution to tackling illegal movements or the underlying reasons behind them.

However, looking more broadly, some common themes did emerge from the information provided by the member states that took part in the study. Member states reported that whilst some illegal waste movements took place within the EU, moving especially to new MS's, most of the reported problems concerned exports

to the developing regions of the world such as Africa and Asia. Illegal shipments originate from most EU and IMPEL member countries with particular kinds of waste appearing to have particular destinations:

- a. plastic waste tends to be exported to Asian countries (both East and West Asia)
- b. refrigerators and CFC products tend to go to Africa, particularly Western Africa
- c. end of life vehicles also go to Africa, and also to Eastern Europe
- d. electronic and cable waste goes to West and East Asia

13. *Illegal waste movements principally involve waste either wrongly classified as Green list or green list waste shipped to countries without the required controls.* Legislation is complex for all parties, regulator and industry alike, but this offers little appeal to serious or organised crime except in some notable cases (for example Ireland, Italy). Some illegal activity seems to be as a result of unintentional acts resulting from lack of awareness and inconsistent interpretation.

14. *Illegal activity appears to be the export of waste to countries that* a) offer favourable commercial conditions (higher prices, lower specification or quality) for this waste (notably MSW) or b) lower risk of enforcement for example W Africa or even some new EU MS's.

15. In addition to the opportunities being exploited by offenders, their *modus operandi* also seemed to vary depending upon waste origin, type and destination. Data from England & Wales on legal transit routes show that there is some overlap between legal and illegal transit routes for some kinds of waste (e.g. plastics) but not in relation to other waste types (e.g. fridge's). Illegal exporters ship different types of waste to different countries via different routes. Depending upon the waste type and destination, different methods are used to conceal the illegality. It appears likely that different groups of people are involved in the different types of export. For example, in the case of exports of WEEE to Africa, foreign nationals from the destination state often appear to be responsible for making the export from the IMPEL destination state. For other types of exports nationals within IMPEL are more often responsible. Methods used to conceal illegal exports and reduce the chances of detection include:

- a. using multiple transit stops to confuse the paper trail (port-hopping)
- b. utilising legal transit routes, to conceal illegal activity – for example exporting municipal waste under the guise of “waste paper” to India
- c. failing to declare/failing to recognise the export being made is one of waste rather than goods – for example it appears significant quantities of what is considered WEEE in Impel Member States is exported to West African States as “second hand goods” thereby avoiding the controls that should apply.
- d. not notifying the shipping of waste or forging documentation

16. *Little appears to be known about offenders.* Member states differed in their view about the extent to which offenders are involved in other kinds of criminal activity. One thing they were all clear on, however, was that the drivers for their activities

are the lack of effective enforcement and high costs of treatment and disposal within the EU and profit to be gained from other initiatives such as Producer Responsibility packaging wastes.

17. *Lack of facilities* available for treating waste was not seen as a relatively significant driver although increasing export of waste for recovery/recycling will undermine investment in domestic capacity. Other IMPEL work however is concluding that lack of domestic recovery capacity, especially for WEEE is becoming a significant issue (IMPEL Ports Project).
18. *Offenders often have close links with the importing country*, either with close associations with the customers, or are nationals of that country brokering that waste. (This has implications on breaking up or uncovering the activities of these networks. Examples from the UK – West African and India).

Co-operation and Collaboration

19. Variation between member states in their approach to detection and enforcement was striking. States differ in the number of enforcement agencies involved, how they are organised, the kinds of strategies and tactics used, the training provided, and the severity of sanctions available. *Where collaboration between enforcement agencies was evident then detection of illegal activity was noticeable*. They were also able to provide data and intelligence.
20. *Overwhelmingly, States want more support for enforcement at an EU level*, including training, standardisation in the interpretation of legislation.
21. *It was observed that communications on TFS also needed to be strengthened within each member state*. Not all states know about eco-messages, for example nor have designated national contact points for transfer of TFS information.
22. *Few states appear to have conducted a national threat assessment or waste profiling*. There could be many reasons for this but this was not investigated further. IMPEL are however considering carrying out specific ‘problem profiles’.

4. Threat Assessment or Problem Profile Methodology

These are discussed more in the body of the report but the following summary is provided.

Those countries who have conducted such work, reveal the need for IMPEL member states to support each other and particularly the new members. These countries are experiencing increased pressure in terms of illegal TFS of waste arising from the relaxing of border controls and their new responsibilities. There is a threat therefore that in the meantime offenders may see illegal exports of waste to such states as a low risk option.

The approach to the assessment of threats arising from illegal traffic in waste varied between states, revealing the lack of any minimum standards for threat

assessments, guidance on methodologies to use or what to include in a threat assessment. This makes comparison between member states understanding of threats almost impossible.

A threat assessment considers the full range of threats arising from a particular activity and/or in relation to a certain location. For each threat the severity of the impact and the likelihood of its occurrence is evaluated. The assessment helps to devise effective responses to prevent and mitigate against harm occurring.

Threat assessments are conducted for many different reasons; common ones being military, law enforcement, public safety and commercial. Many different methods are used for conducting threat assessments, although two techniques are central to most: **data analysis and interviewing**.

The **data analysis** approach involves interrogation of relevant databases in order to identify the nature and scale of the crime. This analysis identifies issues for further research and testing against other information sources.

The **interview technique** involves conducting structured interviews with a wide range of people involved in the activity from different perspectives. This would include law enforcement, Government agencies/authorities, law-abiding businesses/citizens and ideally offenders. Information/opinion provided is then be evaluated depending upon what is known about the source and whether it is corroborated by other sources of information.

In reality most threat assessments combine both techniques in some form and this is largely dependant upon the information sources available.

5. *Recommendations*

Getting a better picture of the scale of the problem

1. It is felt that the questionnaire survey has achieved as much as it could, given the paucity of data provided. What is required now is a substantial project to research in more depth the scale of illegal trans-frontier shipment of waste. Such a study should be tightly focused. It might, for example,
 - take one waste stream for more detailed study (a cradle to grave approach, building on lessons from IMPEL TFS Verification project), or
 - concentrate of waste destined for particular countries/regions (such as new MS's, W. Africa, India or China)
 - undertake a programme of random checks at particular locations, e.g. Dutch and Belgium ports and Malta as a 'gateway' to and from EU.

Developing an evidence-led response

2. The economic and market conditions that drive the problem should be researched and understood better. Such analysis should aim to provide a more holistic analysis of the costs and benefits in the international trade of waste with the aim to provide an assessment of the economic drivers behind and environmental risks of

the illegal waste trade to both exporting and importing states. For example, the export of waste from IMPEL MS's to the Far East for recovery/recycling, may provide a short term, cheaper option for dealing with that waste but may expose Member States to risks in terms of domestic recovery/recycling capacity. If many of the exports are illegal, those risks are increased. For example, improved regulation by destination States may close that outlet for the waste leading to a sudden increase in the amount of waste that has to be dealt with within IMPEL Member States. There is evidence that China for example, are strengthening their enforcement regimes whilst in the long term may develop recovery/recycling options for their own waste and will not require the resources within waste from IMPEL in the longer term.

3. The methods used by offenders to trade illegally in waste should be researched, to identify the ways in which they conceal their activity, and the opportunities in the regulatory, market and enforcement environment they exploit which might be closed down. The relationship between waste producers, shippers and receivers of waste should also be examined, to identify how such relationships might be disrupted.
4. A pilot study, with full EU involvement, might be mounted with the aim of developing an evidence-led strategy for reducing a particular problem. Such a project would involve operational officers working collaboratively with a research team who would be addressing the points listed above. The aim of the project would be to generate novel ideas to improve the detection of offenders and close down opportunities for crime. The project, if successful, would establish a framework for EU states working together.

Improving Threat Assessment

5. The perceived level of threat within many countries seems to be low, as illustrated by the low level of enforcement activity or the lack of threat assessment investigations been carried out. A promotion of the benefits for national and international assessment of threats from illegal activity and quantification of domestic and international harm may provide further stimulus to TFS enforcement and policy development.
6. A methodology for member states to undertake threat assessments should be developed. The aim should be to support member states in producing more robust threat assessments which not only meet their own needs, but can also be shared with other member states as the basis for collaborative activity and building from the bottom up a picture of the problem pan-EU. This could involve, for example, use of the waste profiling work carried out by Netherlands and Sweden. The results of which could be collated and centrally posted on a secure web site, so that other Member States could have access.
7. If threat assessments were undertaken on a common basis, this would allow Member States to benefit from each other's assessments and work more effectively together. For example, if it is known that a particular kind of waste is a problem to a particular state, other IMPEL MS's could use this intelligence to investigate such waste exports from their own countries, to ensure they are also

not a country of origin. In addition, threat assessments undertaken on a common basis also allow a bigger picture to be established across the EU.

Supporting enforcement

8. Interpretation of the legislation is inconsistent. Particular problems are created by inconsistent approaches taken by different Member States to the definition of waste and to the scope of the waste codes appearing in the different waste lists annexed to the Waste Shipments Regulation. Matters could be improved if a means could be found to minimise these inconsistencies pending definitive judgements from the ECJ.
9. It is important that the IMPEL community supports the new member states in this transition period, through sharing of experience, good practise. IMPEL need to consider use of electronic means to exchange intelligence and best practice in real time.
10. Improve all law enforcement and Criminal Justice System agencies' understanding, of the importance of robust enforcement and sanctioning, from environmental agency staff to police, customs and prosecutors and judges.
11. Develop international minimum training standards for all enforcement staff, so that they understand what is illegal and what is not, what their personal powers are, and what the maximum penalties are for breaking the law within their country. There will also be an opportunity to highlight best practice and to develop co-operation. Past IMPEL projects, and especially the current Sea Port project, have illustrated the benefits of sharing experience, intelligence and resources. Training could be directed at sharing methods used to detect waste loads where inspection might be usefully targeted. Collaboration on training may also lead eventually to more detection of illegal activity, raised profile within MS's and influence domestic judicial systems to increase penalties imposed.
12. Adoption of the 'problem profiling techniques' by IMPEL to direct further specific work ('mini threat assessments'). For example; exports of ELV to other MS's, exports claimed to be electronic goods (EEE) to Africa when in fact are exports of WEEE, plastics to Far East.
13. Investigate the cost and benefits of an EU wide database of waste transporters and of waste brokers.
14. Develop a better understanding of the different polices and practices within EU Member States, and the different ways in which enforcement and regulation is organised. Further research into the relative merits of these differences should be considered.
15. Raise awareness within industry and others in each country of the regulatory framework and requirements for compliance. This will provide a level playing field for operators who are, or try to be, compliant and reduce business risk. Ensuring a consistent level and approach to enforcement and supervision of the regulatory regime across the EU will also eventually encourage this too.

Working together better

16. There is good evidence to suggest that dispersed national responsibilities for enforcement of TFS can lead to low levels of enforcement and exchange of intelligence and data. However there are models where these problems do not exist, as illustrated by the ability to provide comprehensive responses to provide information. These models could be investigated for adoption nationally after amendment to suit individual needs and culture.
17. Use the experiences from the better performing or less experienced member states to help those that are under-performing or are less experienced. For example, having short-term ‘apprenticeship’ style placements in well performing states for those in other states who need more experience.
18. The newer EU Member States need to be supported in the illegal trans-frontier shipment of waste both in the physical task of controlling imports and exports, as well as on the administrative side. IMPEL and the Commission could consider how such support could be provided.
19. Develop better procedures for and reduce the barriers to intelligence exchange between member states. As part of this there needs to be some kind of understanding as to what the illegal waste threats are in other Member States.
20. Provide regulatory and enforcement support to developing countries and develop stronger networks with other global regulatory groupings.
21. Investigation focusing on quantifying how much waste is subject to transboundary movement without notification – the majority of which is likely to be entirely legal – and then some means to realistically establish what proportion of those movements are likely to be illegal.
22. Identify the environmental threats posed by the trade. If there is a significant illegal trade in waste, then the environmental consequences need to be identified within the destination countries. There has been a lot of NGO and press evidence presented highlighting the practices employed in some of these destination countries but these reports need to be verified. IMPEL could take a lead to investigate what type of waste is being received, source and what’s happening to it from an objective, unbiased perspective. There have recently been a lot of incidents involving the illegal export of MSW, identified within the Sea Ports project yet there is little evidence to demonstrate environmental harm in destination states. Indeed use of these resources within these states may in fact be environmentally beneficial in terms of global sustainability.
23. Alternatively, continued exports of waste from IMPEL MS drains valuable resource whilst undermines development of internal domestic recycling/recovery capacity. The sustainability and social responsibility issues around these issues

need to be considered. These are issues, which the Commission may need to consider leading on.

CHAPTER ONE:

REPORT OBJECTIVES

The main objectives of this report are;

- to assess IMPEL Member States' perception and concerns about the scale and nature of the illegal trans-frontier shipment of waste involving IMPEL states, and
- the degree to which EU states have assessed the threat to their own countries, the EU, and the rest of the world from the illegal trans-frontier shipment of waste.

These assessments are based on the findings from;

- a questionnaire survey of all IMPEL Member States,
- a review of some of the national threat assessments that have been conducted by IMPEL states,
- national investigations,
- other EU and IMPEL projects and
- from the outcome of meetings held between IMPEL states during the course of this project.

It is also supplemented by results of discussions within the IMPEL- TFS Network.

1.1 INTRODUCTION

The IMPEL cluster involved with the transboundary shipments of waste (IMPEL_TFS Network) therefore developed this project, initiated in 2003, with support from the European Commission. The purpose of the project was to adopt a systematic approach to estimating illegal waste activity, using as a model the techniques of "threat assessment" used extensively by law enforcement agencies such as the police and customs, to examine the scale of illegal traffic in waste arising within Europe and to understand the threats and harm resulting from it.

This report considers transboundary shipments of waste made other than in accordance with the controls set down in the Waste Shipments Regulation and associated legislation.

Other IMPEL-TFS investigations and individual EU member states studies have recently suggested that as much as 85% of this non-hazardous waste is shipped illegally, much of it to developing countries under the guise of recycling. Paper and plastic wastes exported from IMPEL member states has increased dramatically over the past 5 years and indications are that this growth will continue to increase.

The project consisted of:

- a questionnaire survey of IMPEL Member States about their experiences relating to illegal waste shipments, to provide an overview of the problem across the EU, and

- a review of national Threat Assessments regarding illegal waste shipments, on paper and through meetings with IMPEL states, to examine in more depth particular problems affecting individual countries and
- a review of other related information and projects carried out by IMPEL states and other relevant sources.

Reports in the media periodically draw attention to the problems of waste illegally dumped in developing countries, and the harm caused (e.g. “*UK firms caught in illegal waste dumping*” The Guardian, 28th March 2005). There is little robust data on the extent and nature of the problem, however.

What constitutes illegal transfrontier shipping of waste?

There are three types of waste, categorised according to risk, each with its own set of controls and therefore opportunities for illegal shipment. Red list or hazardous waste, Amber List which is hazardous but may be shipped between some countries for recovery only, and Green List which are non-hazardous wastes and which can be traded much more freely. These requirements are described below;

The legislation regulating transboundary movements of waste prescribes different levels of control for different types of waste movement. These can be broadly split between waste movements that are subject to pre-notification requirements and those that are not subject to such requirements.

The applicable controls depend upon:

- i) the purpose of the waste movement – all transboundary movements for disposal are subject to notification requirements and many are absolutely prohibited – for example exports from IMPEL Member States to non-OECD states for disposal are simply prohibited;
- ii) the type of wastes being moved – there are a number of waste lists annexed to the legislative instruments. The first key determination is whether or not the waste being shipped can be appropriately classified as “Green List” waste. Green List waste types generally equate to low hazard waste however not all low hazard waste is Green List. Only Green list waste can be potentially moved without being subject to pre-notification controls. The second key determination where waste is destined for non-OECD states is whether or not it is within the list of wastes covered by the Basel Export Ban – in broad terms exports of waste that is generally considered “hazardous” within the EU to such states is prohibited even if moving for recovery.
- iii) The countries concerned with the waste movement – for example movements of Green List waste between EU and OECD countries for recovery are subject to minimal controls whereas the export of such waste to non-OECD countries can be subject to a number of different types of control depending the precise nature of the waste, the identity of the intended destination state and the requirements they have stipulated for specified wastes.

In relation to legal trans-frontier movements of waste, the most recent data published by the Basel Convention Secretariat shows that 155 million metric tonnes of hazardous and other waste was generated by IMPEL member states in 2001. As table 1 below shows, 3% (5.2Mte) of this was exported legally although, 10% of the hazardous waste generated was exported compared with just 1% of 'other' waste. However, of 'other' waste that is exported about half appears to leave the EU zone. These figures must be viewed with caution as regulators believe that much of this 'other' waste is not declared as waste to customs or notified in any way. Findings within this report substantiate this belief. Most of this 'other' waste is destined for developing countries, outside the OECD, for recycling/recovery.

It is asserted that some of the 'other' movements are taking place without the necessary notification.

Table 1.1 Generation and transboundary movements of waste for IMPEL member states, 2001(tonnes).

	Generated	Exported	Imported
Hazardous	51.3	4.3	5.5
Other	103.9	0.9	0.4

27 IMPEL states provided figures for hazardous waste and 28 for other waste

International trade in waste into and from the EU have continued to rise over recent years. Just as an example data in table 1.2 shows data on notifiable waste from Sweden. Data from most other EU countries shows similar trends as will be shown later in this report.

Table 1.2 Imports and exports of notified waste to and from Sweden. (tonnes)

Year	Import	Export
1996	115 000	24 000
1997	128 230	37 834
1998	181 790	71 129
1999	263 436	42 268
2000	364 184	73 518
2001	390 421	122 194
2002	513 651	111 215
2003	500 651	153 088

As international trade in waste increases, so does illegal trade for reasons outlined later in this report. If illegal trade is to be controlled then perhaps a more significant discussion needs to take place on the sustainability of the trade.

It follows that there are potentially a number of different ways in which shipments of hazardous and green list waste can be deemed illegal. Below are some examples:

- Transporting any waste subject to the Basel Export Ban out of the EU or the OECD.

- Transporting “hazardous” waste (namely that listed in the red or amber lists to the WSR) within the EU without notifying the authorities of source and destination.
- Falsifying any documentation with regards to waste loads or not declaring wastes on documentation.
- Mixing certain wastes/misrepresenting or hiding waste in containers.
- Shipping green list waste outside the EU without complying with the requirements of the country of destination.
- Classifying waste as Green list when in fact are Amber or Red list
- Classifying waste as Green list when mixed or contaminated with other wastes e.g. some mixtures of plastics, or paper mixed with plastic, etc
- Shipping green list waste under false pretences i.e. stating the shipped items are going to be repaired and re-used in other countries while knowing they will be dumped.
- Shipping ‘waste’ claiming what is being shipped is “second hand goods” and therefore not subject to waste controls.

1.2 The potential threat

Threats arising from illegal trade include;

- harm to the environment or human health especially in developing countries,
- economic threats to legal trade in waste, goods and raw materials,
- low development of domestic recycling industry, dependance on recovery elsewhere
- enforcement and political reputation for enforcement with attendant public attitudes to recycling, recycling targets, policy initiatives
- conflict with other regulatory regimes such as Producer Responsibility (equivalent standards)
- harm to administrative systems designed to regulate activities by the exposure of weaknesses in enforcement, intelligence, collaboration, regulator competency and industry awareness

1.3 Discussion

Little, accurate data or intelligence however, is known about the scale and nature of the problem.

The purpose of controlling the movement of waste in this way is to ensure as far as possible that it is recycled or disposed of safely and the wishes of other countries are respected. While the EU has no power to regulate waste management practices within developing countries, it can at least ensure that waste from the EU does not end up illegally in such countries. However, the competent authorities hold little data on waste, especially Green list waste destined for developing countries. Consequently the scale of the problem is not known accurately and there is not an easy reliable method for establishing its true extent.

Recycling practices in many developing countries are carried out within a regime of poor health and environmental standards.

This is an issue that warrants further detailed investigation to substantiate anecdotal evidence, however;

There are strong incentives for those in the waste chain to avoid controls over the movement and treatment of waste. Financially, there are strong incentives for waste producers, brokers, carriers and others, to exploit any opportunity to avoid these controls. In relation to hazardous materials, there can be significant savings to be made in disposal charges within the EU. There may even be a black market for such substances (see below).

Recyclable hazardous and non-hazardous waste, managed by companies in countries where recycling practices are less regulated and where labour is cheap, can undercut the EU market for such waste by paying more per load. (*The Guardian*, 30 November, 2002).

The risk of detection is low and potential rewards are large; often those involved disappear, leaving the competent authorities to pay for and arrange repatriation.

Such financial rewards may outweigh the current relatively low risks and costs of capture and sanction although parties involved in illegal exports expose themselves to the risk of paying for repatriation of waste.

A black market in hazardous waste

One example of hazardous waste trafficking is the black market trade in CFC's (Hayman & Brack, 2002). The size of the black market for ozone-depleting substances (ODS) globally has been estimated by the UN at 20,000 – 30,000 metric tonnes annually (*Press Release UNEP/153*, 2nd June 2003). One of the reasons for this market is the demand in the developed world for replacement ODS for existing machinery. Because the developing world has a longer time frame in which to get rid of these substances, they can supply this demand. In an Environmental Investigation Agency operation in 2003, operatives posing as clients managed to find a Singapore company able to source and ship CFC-12 from Singapore to South Africa. The Singaporean company detailed how they would repackage the goods, apply false labels and falsify documents in order to send the shipment. The shipment would arrive in one of South Africa's neighbouring countries and the goods would get into South Africa via land borders (Schmidt, 2004).

As a result of these kinds of financial rewards, the scale of illegal shipping of waste could be high unless the control framework and its enforcement is robust.

The suspected involvement of criminal gangs in illegal waste illustrates the problem. Stories of criminal gangs in Ireland and Italy dumping waste are commonly covered

by the media (e.g. 'Top crime gang trio in the dock', *Belfast Telegraph*, 15 April 2005; 'Riches in rubbish for Naples Mafia', *BBC News*, 29 July 2004). There is however no data on the level of profits being made and by whom although in case of MSW from Ireland to Northern Ireland costs of disposal in Northern Ireland are 10% of those in Ireland taking into account landfill tax.

In their International Crime Threat Assessment (2000) the US Government claim that criminal organisations collectively earn \$10-12 billion per annum for 'dumping trash and hazardous waste materials'. The US Threat Assessment also names Russian and Japanese criminal groups as being involved in the illegal dumping of waste, but maintains that Italy's organised crime groups are the most prolific because of their successes in their own country.

There is some level of organised illegal waste activity within the EU but little published knowledge.

Legambiente, one of Italy's environmental researchers, has kept yearly reports on what they call the 'ecomafia' – organised environmental crime groups (Legambiente, 2003). Legambiente has also investigated the illegal hazardous waste trade in both Italy and Spain with the support of the European Commission (Report October 2003).

Legambiente also reported 3 cases in Spain, which showed clear examples of the presence of organised crime during the 1990's. Since then however few cases have come to light, which identify the presence of organised networks expressly dedicated to international waste traffic. Although it is suggested that certain companies or individuals in Spain, may move into the legal area of economic activity or shift into illicit waste management, when the times are right.

In an article *Environmental Crimes: Profiting at the Earth's Expense* Charles W. Schmit reports - "Citing "Italian press sources," the authors of *International Crime Threat Assessment* wrote that European crime groups export hazardous waste to countries throughout Europe, Asia, and Africa through a variety of "trash for cash" schemes. The Italian [Eco]Mafia, which has successfully infiltrated Italy's industrial waste disposal sector, is thought by several experts, including the authors of *International Crime Threat Assessment*, to be heavily involved. The report states that half of Italy's processed waste disappears annually, most of it presumably dumped abroad "(Charles W. Schmit, February 2004).

In 2003 the European Commission initiated 2 reports *Organised Crime in EU Member States* and *Organised Crime in a few Candidate Countries*. This work was carried out by Tanja Fronlich for BFU in association with Max Planck Institute. In the 5 EU Member States investigated it was concluded that the level of involvement of organised crime may well be understated for a number of reasons. Lack of awareness and of data together with the absence of a consistent definition of 'organised crime' were amongst the factors mentioned for this. Within new EU MS's it was found that there were signs of the involvement of organised, Poland was mentioned in this context. Also it was observed that in these countries, some environmental crime, including illegal waste disposal and trafficking was a new problem, and as a consequence had a low public and political profile.

Further examples of organised illegal activity can be found at the end of this Threat Assessment report (Appendix A).

CHAPTER TWO: THE QUESTIONNAIRE

2.1 INTRODUCTION

This chapter reports the findings from a Threat Assessment questionnaire survey of all IMPEL member states. The questionnaire (appendix B) was designed by the Environment Agency for England and Wales, following a conference of parties to the project (February 2003). It was sent to IMPEL Member countries May 2003.

Its aims were;

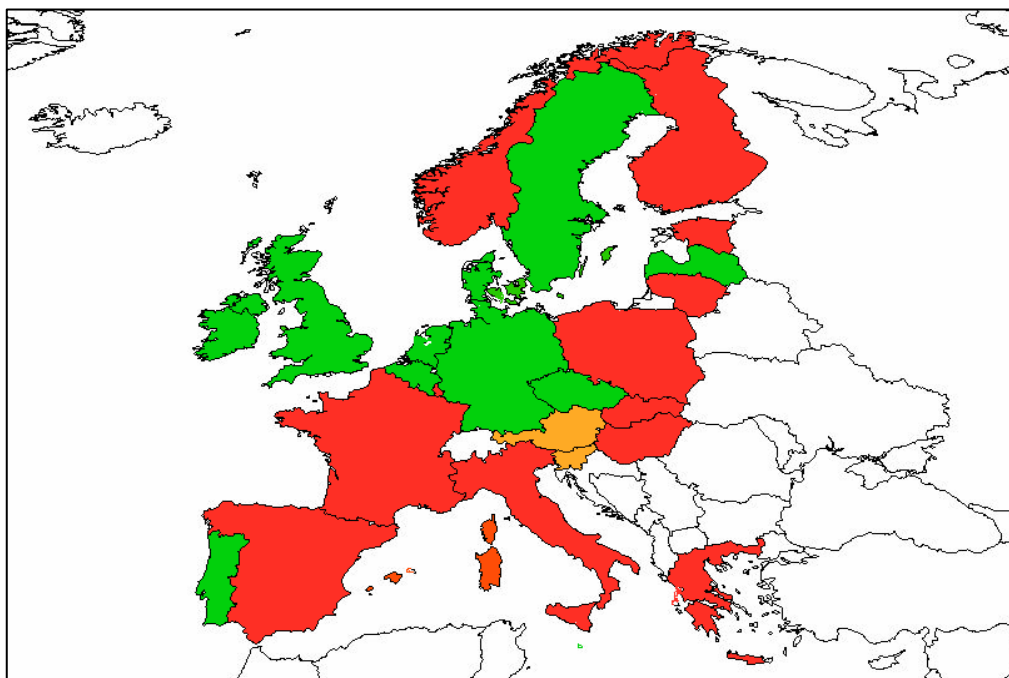
- to gather information on the volume and nature of illegal waste shipment within and outside of the EU,
- what assessments had been made on the nature and level of illegal activity
- the transport routes between Member States and outside the EU and
- to gather views and comments from IMPEL Member States.

2.2 QUESTIONNAIRE RESPONSE

The questionnaire was sent to 26 of the 29 IMPEL Members States. Of these, 11 states completed and returned more than half of the questionnaire (the green countries in figure 2.1), despite follow-up via email and telephone calls. This experience mirrors that found by another IMPEL TFS project which also found it to be difficult to contact authorities responsible for the enforcement of TFS (*IMPEL TFS Verification Project Report November 2004*). The two amber coloured countries in figure 2.1 replied but answered less than half the questions and the 13 red countries did not reply at all. The uncoloured countries were not sent the questionnaire.

The generally low response rate was not confined to new member states. Only 8 of the 15 countries who were member states before 1st May 2004 returned a usable (i.e. more than half completed) questionnaire.

Figure 2.1: Responses to the IMPEL-TFS questionnaire



The response rate should not be seen necessarily as reflecting an unwillingness to cooperate in the project but can be due to a number of reasons. The response however, does reflect past experiences for similar IMPEL TFS questionnaires.

Possibilities include being unable to answer the questions, language barriers (the survey was in English), problems in directing the questionnaire to the right person in the right organisation, and difficulties in interpreting the questions. Whatever the reason, the response to the survey reveals a good deal about the current capacity and ability of IMPEL states to deal with this problem. It could also be concluded that little is known about it and that there may therefore be significant barriers for collaboration on enforcement.

Objectively this leads to the question: Is there the capacity (resource, experience, structures, communications, and collaboration) within IMPEL states to effectively regulate transfrontier shipment of waste.

What follows here, is based on the questionnaires received from the 11 member states coloured in green in figure 2.1. It is important to note that the experience of these states in dealing with this problem is very varied. This means that some based their responses to questions on hundreds of cases, while others based their responses on only a few cases. That is not to say that the information given by those states with less experience is less valid, but rather that some responses may not be fairly balanced due to the limited information from which they are extracted. Where this has been a particular problem for a section or question it is highlighted.

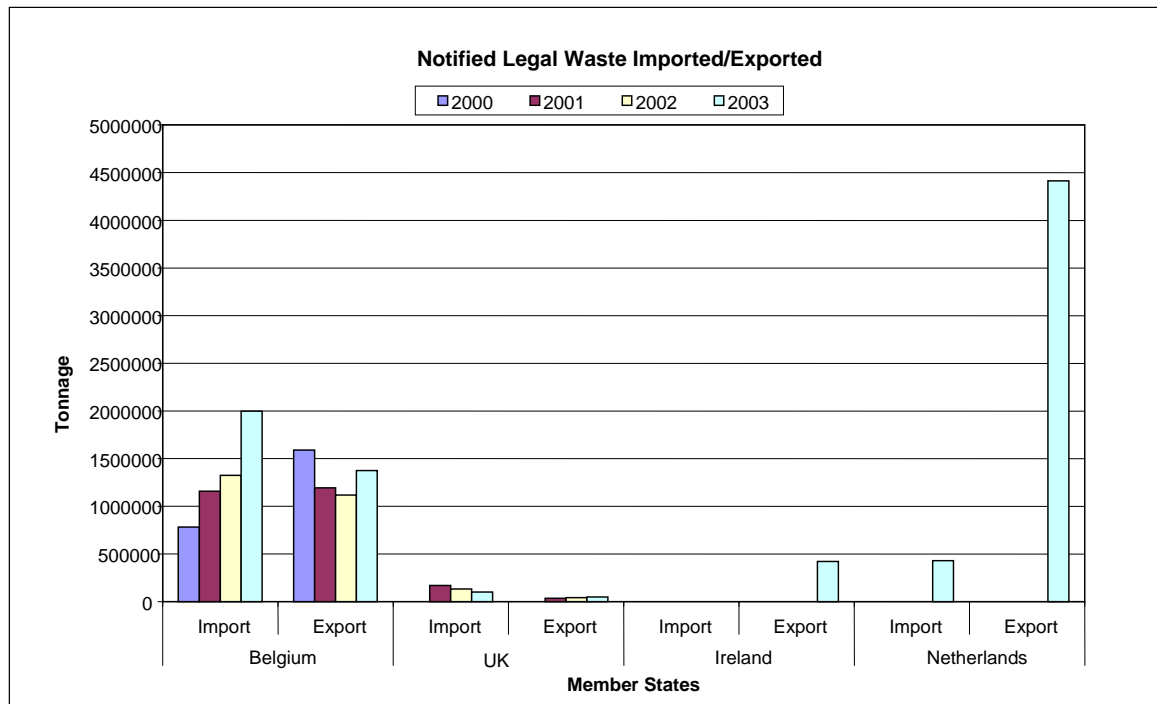
2.3 LEGAL IMPORTS/EXPORTS OF WASTE

Basel Convention data shows that 7% (11 million metric tonnes) of hazardous and other waste generated by IMPEL states involved transboundary movement in 2001. The questionnaire survey, however, reveals a good deal of variation between states in the proportion of waste they export or import and also changes over time.

Figure 2.2 below shows the amount of waste imported into and exported from four states that were able to provide comparable data. For comparison purposes, only those states who clearly specified the data was for notified waste are shown¹.

¹ For figure 3.1 'England & Wales' reported on volumes of notified waste for the whole of the UK.

Figure 2.2: Tonnes of waste imported and exported to four IMPEL states.



No information provided by Germany, Malta, Latvia and Sweden.
 REF: Section 1: Questions 1a and 1b of IMPEL-TFS Questionnaire.

Although comparable data were only available from four member states, these are sufficient to show that the volume and nature of transfrontier waste trade varies enormously between countries. In particular:

- Netherlands is a significant exporter of notified waste and exported over twice as much waste in 2003 than Belgium. 91.1% of the Netherlands waste trade in 2003 was made up of exports.
- Belgium is a growing importer of notified waste, with imports now outweighing its exports. Imports began in 2000 as one third of the waste trade, but by 2003 imports reached 59% of the waste trade.
- For the UK there is a small but steady trend of reducing imports and increasing exports of notified waste. Exports made up 17% of all trade in notified waste into and out of the country in 2001, and 32% in 2003. While not captured in the survey the UK is also known to export large amounts of green list (non-notified) waste – for example, 7 million tonnes of ferrous scrap exported in 2003, compared with 140,000 tonnes of ferrous scrap imported (*Environment Agency, England and Wales, Green list report 2004*)

The drivers for these different profiles are not known. It may be that

- some countries do not have the facilities to process all their waste internally
- alternatively, it may be more profitable for them to export particular waste streams that have value, such as scrap metal, to other countries

A better understanding of these trends and profiles would help identify the opportunities for illegal trade which offenders could exploit, and which could be the target for policy and enforcement interventions.

Member states were asked which EU countries they traded with. Ten of the 11 states answered this question, and most named 2 to 4 significant countries with whom they traded. Table 2.1 shows the results. It shows, for example that one member state imported waste from Austria, and one member state exported waste to Austria.

Table 2.1 Countries which states most significantly deal with for legal waste import and export.

Country	N states importing waste from	N states exporting waste to
Austria	1	1
Belgium	2	5
Estonia		1
Finland	2	
France	1	3
Germany	4	7
Great Britain		1
Ireland	3	
Italy	2	1
Netherlands	3	3
Norway	2	1
Romania	1	
Spain		1
Sweden	2	1

REF: Section 1: Questions 2a and 2b of IMPEL-TFS Questionnaire.

The number of different EU states that trade with Belgium, Netherlands and Germany suggests these three states are ‘pinch points’ of waste movement within the EU. As such, there may be locations where enforcement and regulatory activity might profitably be heightened and targeted, as these may be locations where illegal

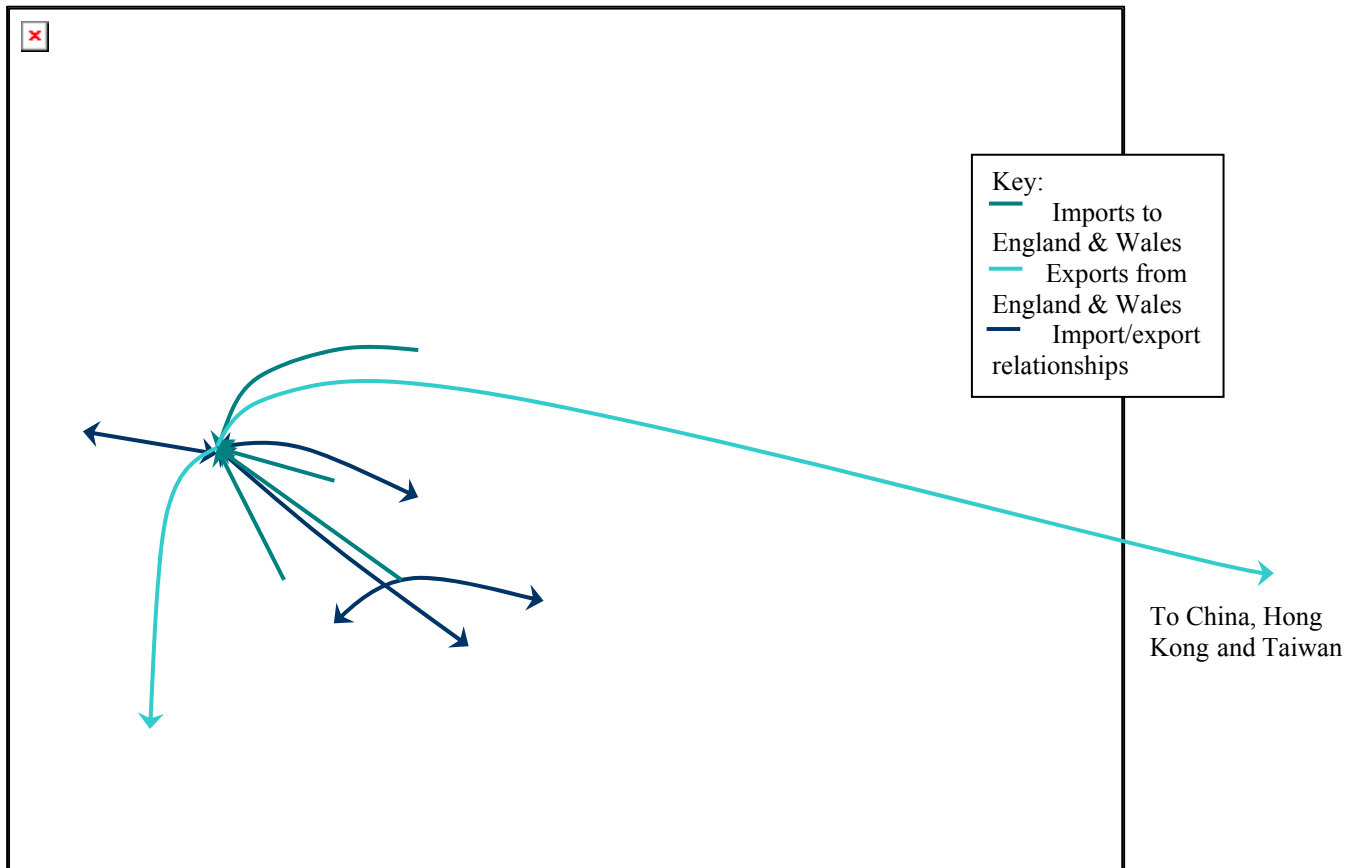


Figure 2.3: Plastics legally imported to and exported from England & Wales.

shipments of waste are more vulnerable to detection. Other IMPEL TFS work has indicated the value of targeting inspections at critical ports (Sea Port I project 2003-4).

The survey asked only about legal waste trading within the EU border and not beyond it. We have, however, been able to explore international trading routes using data provided by the Environment Agency for England and Wales. This is useful to enable comparison later in this report with illegal trading routes that cross the EU border.

The following illustrations (figures 2.3-2.5) show the import and export of waste plastic, refrigerators, and electronics to and from England & Wales internationally.

Figure 2.4: Refrigerators legally imported to and exported from England & Wales.

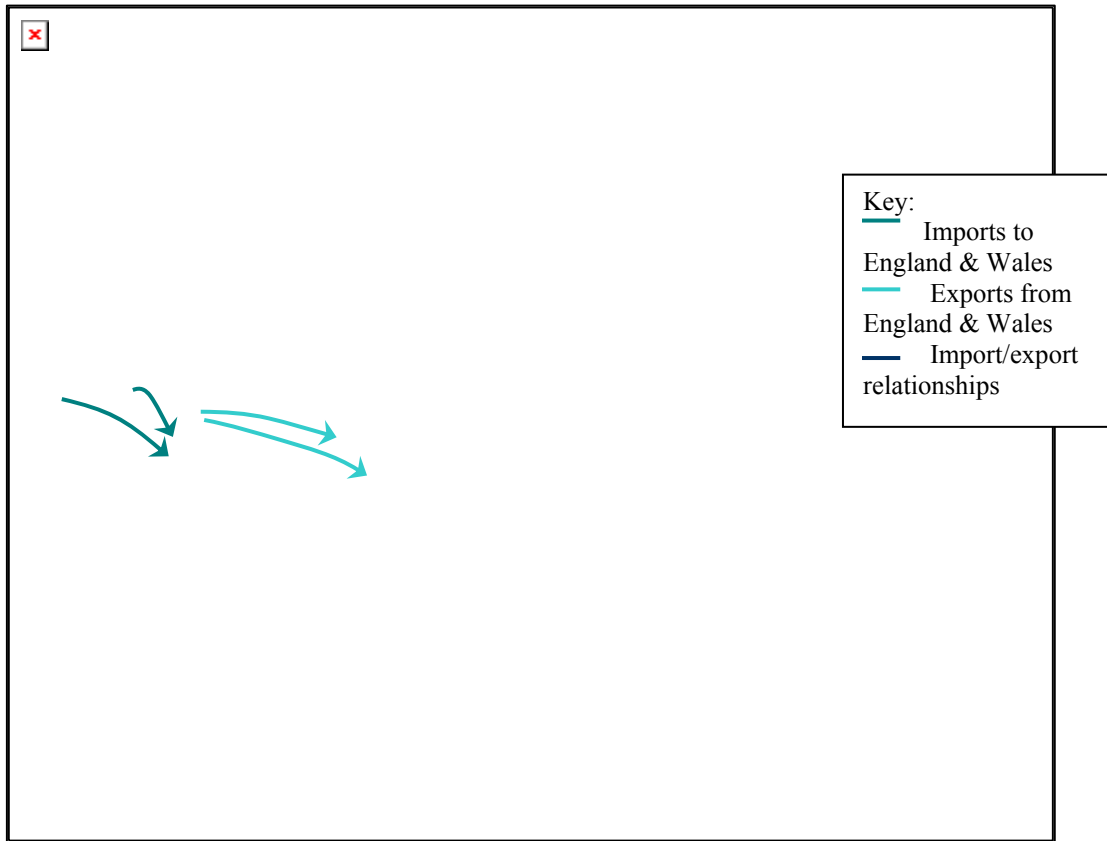
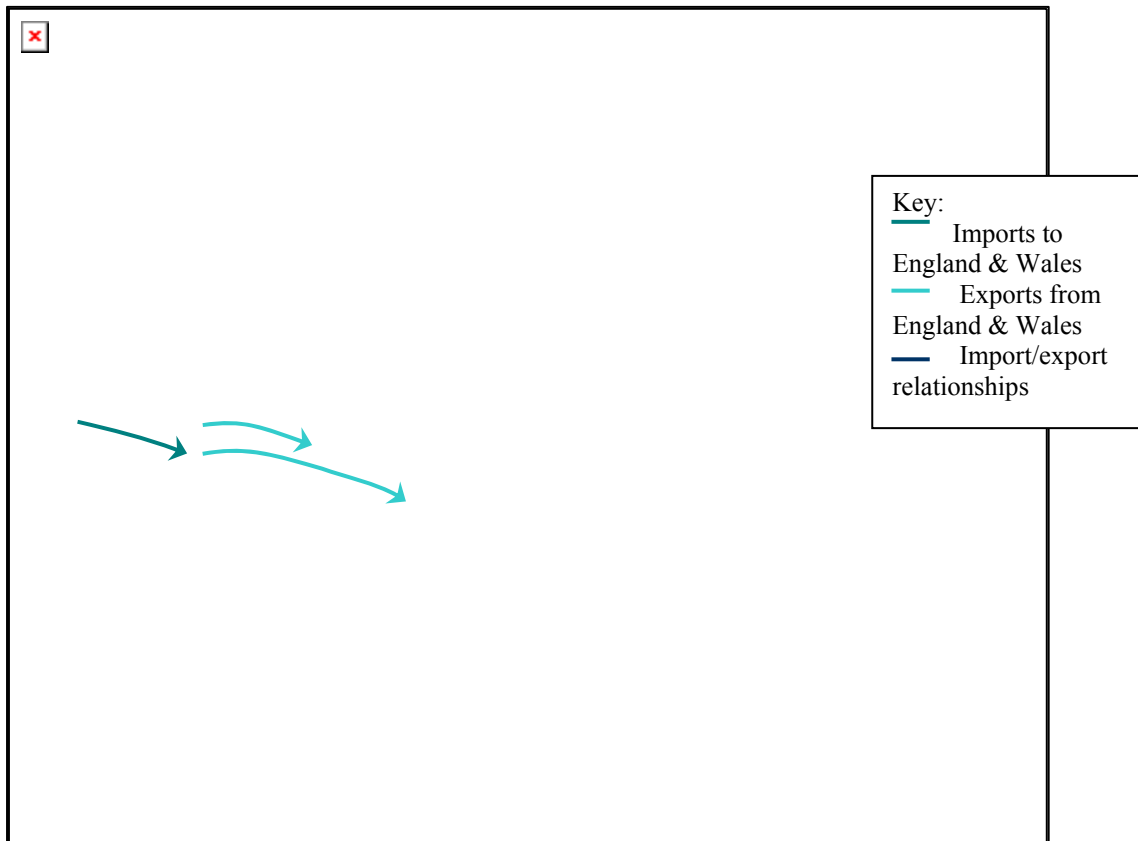


Figure 2.5: Electronic waste legally imported to and exported from England & Wales.



Figures 2.4 and 2.5 (above) show that legitimately exported refrigeration and electronic waste from England & Wales remains within the EU.

If this is an accurate picture, what it means is that any such waste attempting to leave the EU is potentially, although not necessarily, illegal and should therefore prompt closer attention from the relevant authorities.

Where plastics are concerned, however, there is a significant amount of trade with East Asia (figure 2.3) which may provide opportunities for illegal waste to be disguised with legal waste shipments.

Overall, there appear to be well formed waste trade routes between EU member states, with member states having different profiles and roles within the transfrontier movement of waste – the Netherlands, Belgium and Germany, for example, occupy particularly important positions in the movement of waste.

Also, Malta could be a key pinch point in international shipments of waste into and out of the EU. In excess of 20, 000t waste transits Malta, it has the third largest merchant shipping fleet and 30% of the worlds shipping passes through Malta Freeport. There could therefore be an opportunity for detecting illegal traffic from or into the EU.

Further work to better understand these trading relationships would be valuable, for example to show what kind of wastes were exported from which states, to which destination and in what volume. This might reveal specialisation, with some states able to process some forms of waste more effectively and efficiently than others.

Such analysis should not be confined to trade within the EU. It would in particular be beneficial to examine legal waste trade of green list wastes for comparison with illegal shipments of green list waste. While red list waste is highly regulated and therefore more easily detected and controlled, green list waste is less regulated and therefore easier to conceal and ship illegally. The rationale behind defining much more specifically the legal waste trade market is that this will help reveal opportunities for illegal shipping for targeting and closing down.

2.4 ILLEGAL IMPORTS/EXPORTS OF WASTE

This section examines Member States' knowledge of the illegal import and export of waste to and from their respective countries, including use of their country as a transit route for waste going to other destinations. Specifically, member states were asked to report on the number of violations of waste regulations, sanctions and fines available, known transit routes of illegal waste, and the types and volume of waste involved.

Violations of waste regulations

Table 2.2 shows that the largest number of violations was reported by the Netherlands, followed by Belgium, Germany and Ireland.

Table 2.2: Number of violations and those involved in violations of waste trafficking.

Member state	Year	Number of violations	No. individuals/groups involved in the violations
Belgium	2003	148	56
Czech Republic	-	3-4 per year	-
England & Wales	2003	10	-
Germany	2003	82	68
Ireland	2003/04	51 containers detained in Rotterdam; 46 containers detained in Antwerp.	9 companies in Rotterdam; 5 companies in Antwerp.
Latvia	-	1	1
Malta	-	5	6
Netherlands	2003	353	3 (types of group)
Portugal	2003	35	-
Sweden	2003	3	2 (types of people)

- = no information given. No information provided by Denmark.

REF: Section 2: Questions 1 and 2 of IMPEL-TFS Questionnaire.

No detail is available on the nature of these incidents, which means that a number of explanations are possible for the large number of violations detected in the Netherlands and Belgium, including:

- the extent of trade passing through these states means there is greater chance of mistakes being made in the paperwork and enforcement officers picking up these violations
- the scale of trade passing through these large and busy ports provides greater opportunity and temptation for illegal trade
- these ports are ‘pinch points’ in the transboundary movement of waste in the EU, so that illegal shipments are more vulnerable to detection here
- these member states operate more vigorous enforcement regimes, possibly because of their position in the EU as volume trading states, and so detect more illegal shipments of waste

Table 2.3 shows examples of fines and sanctions given to offenders who violate waste regulations and, in two cases, the estimated monetary value to offenders of the offence.

Table 2.3 Sanctions, fines, and sentences for violation of waste regulation; and the monetary value of the crime.

Member state	Year	Sanctions/fines/sentences	Monetary value
Belgium	2002	1 fine: €12,500	-
Czech Republic	-	Potential fine: €30,000	-
England & Wales	2003	1 conviction fine: £4,600 1 prosecution ongoing	-
Germany	-	Potential imprisonment: up to 8 yrs	-

		Potential fine: up to €360,000	
Ireland	-	This obligation rests with the relevant local authorities.	€388,000.
Latvia	-	Not gone to court	One case €20,000.
Malta	-	Not gone to court	-
Netherlands	-	Potential fine: €500 per ton	
Portugal	-	Potential fine: €2,500 - €45,000	-

- = no information given. No information provided by Denmark, and Sweden.

REF: Section 2: Questions 3 and 4 of IMPEL-TFS Questionnaire.

The variation between member states in the severity of sanctions available is striking.

Germany appears to have a very robust response compared with other states. Further research might explore in more depth the proportion of violations that result in a sanction, and the extent to which comparable violations are dealt with in similar ways by different member states.

Table 2.3 suggests that few of the 11 member states (or those completing the questionnaire) know the true economic benefit to offenders of illegally moving waste into, out of and within the European Union. Value of goods is declared in customs information and a number of countries have subsequently informed the project of ‘waste profiling’ work in collaboration with customs to identify waste shipments.

There seems little doubt, however, that this profiling can be very rewarding activity.

For example, recent Irish newspapers report gangs dealing in illegal waste because of the huge profits (*Irish Independent, January 31, 2005; Irish News, 17 December, 2004*). Further research on this would be useful, to help assess the proportionality of the sanctions available. For example, to what extent would greater use of financial investigators to seize and confiscate assets be appropriate and justified? This option is available in the UK under the Proceeds of Crime Act, 2002 (PoCA). As of yet, no individuals’ assets have been seized in the UK for large scale illegal shipment of waste.

Transit routes for illegal waste

Identifying the transit routes for illegal waste, the *modus operandi* used to evade capture, and methods used to transport the waste is central to any work aimed at controlling the problem.

A particular question is the extent to which such waste remains within EU borders or is transported beyond to other parts of the world where its safe management is less assured. Table 2.4 shows member states views about the origin and destination of illegal waste shipments. All 11 member states that answered gave multiple answers to this question. The numbers in the table show the number of states that mentioned this area as a source, transit route or destination for illegal waste.

Table 2.4 Production, transit and destination of illegal waste.

Country	Production	Transit	Destination
Western European	21	13	10
Eastern European		1	5
West Asian			4
East Asian			9
African	1		11
North American			1

REF: Section 2: Question 5 of IMPEL-TFS Questionnaire.

Table 2.4 clearly shows that, while some illegal waste produced by EU countries stays within Western Europe, developing regions such as Africa and Asia are a destination for much of it.

All of the transit stops for illegal waste are identified as being within Europe. It has been suggested that multiple transit stops (known as *port hopping*) within Europe are a tactic used by offenders to cover their tracks and make identification and tracking of illegal shipments difficult (*The Guardian, 21 September 2004*). Port hopping is also a phenomenon observed during the IMPEL Sea Port projects (I and lately in II).

Information about the type of waste involved is important, to understand better the extent of harm potentially suffered by destination countries.

There may also be distinct transit routes and destinations for particular kinds of waste.

Table 2.5 shows Member states responses about the types of waste that are illegally exported from their country, the country of destination and the volume involved. Note that the rows are ordered according to *types of waste stream* rather than the *member state*.

Table 2.5 also shows that different types of illegal waste have different destinations. For example, while demolition materials tend to remain within the EU, plastic and CFC products are illegally transported outside the EU. Most EU countries are named as the origin of waste illegally transported to developing countries – there is no single offender.

Table 2.5: Illegal waste exports and destination countries

Member state	Source of waste (activity or industry sector)	Types of waste (using EWC code if possible)	Quantities of waste involved (if possible in tonnes)	From whom is waste generally sourced for illegal shipments	Destination for each of these waste types
Belgium	Domestic origin	Plastic bottles etc, polluted by other domestic dirt	???	Small number of traders dealing with legal waste collectors	Asia (recycling or dumping) or dumping in storage facilities in Europe
England & Wales	Scrap plastic, Industry & packing	200139	7,200 tons	Brokers	India
Germany	Plastic (synthetic) waste			Waste collectors	via Belgium – East and South-East Asia
Ireland	Domestic origin	Mixed plastic and paper waste		Waste collectors	Via Belgium/ Netherlands - India
Netherlands	Municipal/ demolition waste/ plastic	1701; 20.01.01; 20.01.39; 20.01.99; 20.03.01	More than 200 transports	Waste traders, producers	China, India, Singapore, Malaysia, Hong-Kong, Indonesia
Belgium	Domestic origin	Used and spoiled Hifi, fridges, computers...	???	From private individuals, hifi distributors or stolen from waste collection sites	West Africa, Middle East
England & Wales	Refrigerators	200123	Unknown > 1000 tonnes	Brokers/Dealers	Africa
France	Domestic origin	Used and spoiled Hifi, fridges, computers...	???	From private individuals, hifi distributors or stolen from waste collection sites	via Belgium - West Africa, Middle East
Germany	Private household/ electric appliance/ refrigerating manufacturers	Used CFC containing refrigerators	-	Collecting points (private, municipal) Private household	West Africa
Netherlands	Old refrigerators	16.02.11	More than 100 transports	Waste producers, dealers	Africa, mainly: Ghana, Nigeria, and Poland.
Sweden	Stores and rebuilding projects	Cooling furniture containing CFC's	-	Small dealers	West Africa
Switzerland	Domestic origin	Used and spoiled Hifi,	???	From private individuals, hifi	via Belgium - West Africa, Middle

		fridges, computers...		distributors or stolen from waste collection sites	East
Denmark		CFC products or waste		Dealers	African countries. Former Soviet countries via Hamburg
Czech Republic	Car industry	160103	Hundreds of tons	Waste producers	The Czech Republic
England & Wales	Car Parts	160121	Unknown > 1000 tonnes	Brokers/Dealers	Africa
Germany	Private household/ Car industry	End of life vehicles	-	Private household/ car dealers	West Africa, Eastern Europe
Malta	Motor vehicle	Lead acid batteries	-	Dealers	Used go mainly to Israel
Netherlands	End of life vehicles	16.01.04; 16.01.06	More than 100 transports	Waste traders, dealers	Africa, mainly: Ghana, Nigeria, Poland
Portugal	End of life vehicles	160104	-	Junk dealers	Extremadura (Spain)
Sweden	Private persons and junkyards	End of life vehicles	-	Small dealers	Africa, Iraq
Switzerland	Car parts	Polluted engines		Dealers	via Belgium – Africa & Middle East
Belgium	Demolition/ construction industry	Cable waste	-	Scrap collector or scrap traders (no handling of the cable waste itself)	East Asia
Germany	Demolition/ construction industry	Cable waste	-	Scrap collector or scrap traders (no handling of the cable waste itself)	via Belgium - East Asia
Netherlands	Demolition/ construction industry	Cable waste	-	Scrap collector or scrap traders (no handling of the cable waste itself)	via Belgium – East Asia
Switzerland	Demolition/ construction industry	Cable waste	-	Scrap collector or scrap traders (no handling of the cable waste itself)	via Belgium – East Asia
Belgium	Electro scrap			Waste collectors	China
Denmark		Electronic waste		Dealers	Germany
Germany	Electro scrap			Waste collectors	via Belgium - China
Netherlands	Electronic waste	20.01.35; 20.01.36; 16.02.10; 17.04.10; 17.04.11	More than 100 transports	Waste traders, dealers, producers	China, Hong-Kong, Pakistan, VAE, Thailand

Portugal	Metal scrap	160106; 191202	-	Junk dealers	Extremadura (Spain)
Malta	Radioactive material	Scrap metal etc.	-	Others	Transit from Eastern Europe to Belgium
Belgium	Demolition waste	Bricks, iron, earth	-	-	Netherlands
Netherlands	Demolition waste	Bricks, iron, earth	-	-	Belgium
Belgium	Waste tyres	-	-	-	France, Germany, Eastern Europe
England & Wales	Waste tyres	-	-	-	via Belgium – France, Germany, Eastern Europe
Belgium	Wood	Used railway sleepers		Collectors	England & Wales
Belgium	Waste vessels	-	few	-	India
Belgium	Li-batteries	-	-	-	Singapore
Belgium	Domestic origin	Old clothes	-	-	Lithuania
Belgium	All types of industry	Mixed industrial waste with high caloric value	200,000 tons/yr	Small number of traders dealing with legal waste collectors	Dumping sites, cement and steel industry in Germany and Walloon region
England & Wales	Municipal Waste	200301	> 200,000 tonnes (2003)	Brokers	India, China, (& to UK from Eire)
Germany	Metal recycling industry	Light fraction from metal	-	Metal recycling companies	France
Ireland	Mixed recyclable wastes	AD160	62,500 ton yearly	Waste producers, dealers, brokers etc.	Northern Ireland; also Far East and China for recovery.
Latvia	-	-	-	-	-
Malta	Building industry	Asbestos	-	Dealers/Brokers	Germany
Malta	Pharmaceutical industry	Spent pharmaceuticals	-	Waste producers	Various including UK and Holland
Portugal	Plumb batteries	160601	-	Junk dealers	Castilla y Leon (Spain)
Portugal	Fly ashes	Need investigation			Portugal

- = no information given. REF: Section 4 of IMPEL-TFS Questionnaire.

Figures 2.6 - 2.10 below show how the transportation routes, for five of the more significant waste types - plastic, refrigeration, end-of-life vehicles, cable waste and electronic scrap - vary.

Figure 2.6: Illegal shipments of waste plastic.

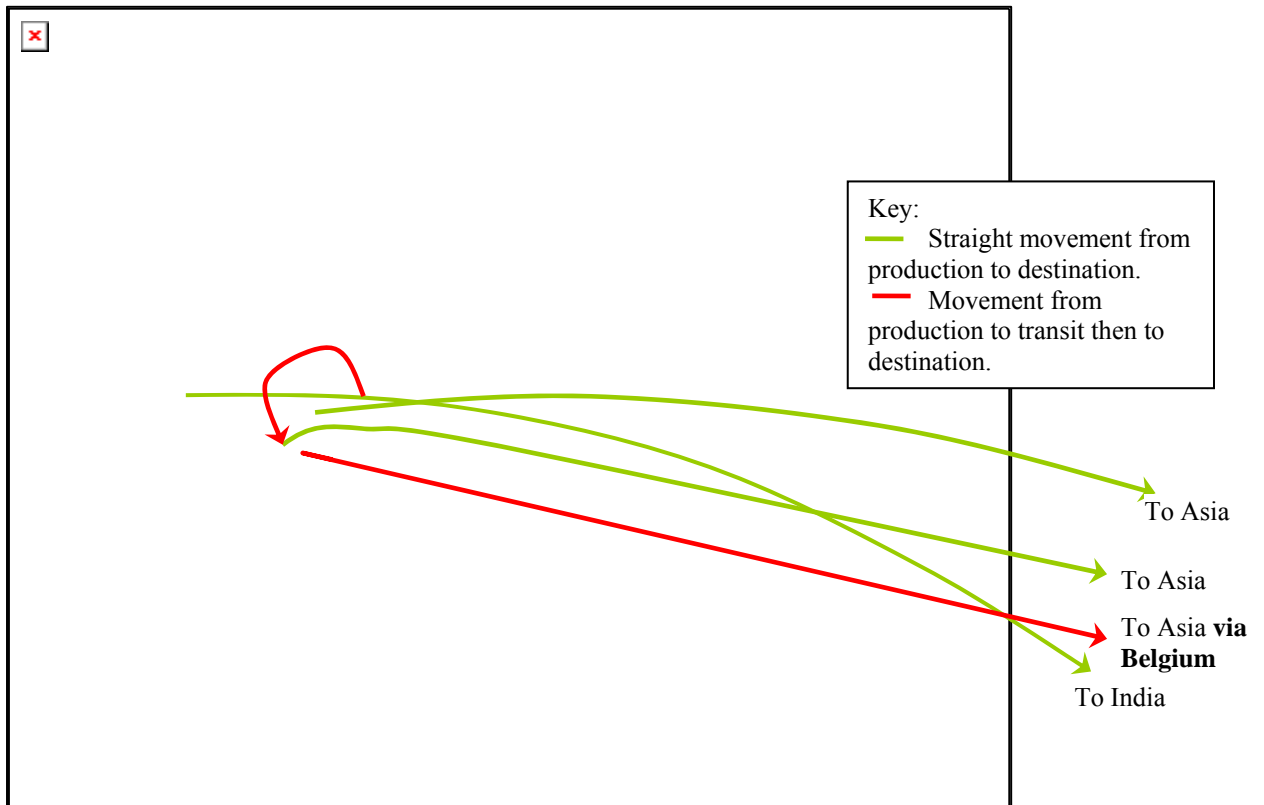


Figure 2.7: Illegal shipments of refrigerators and CFC's.

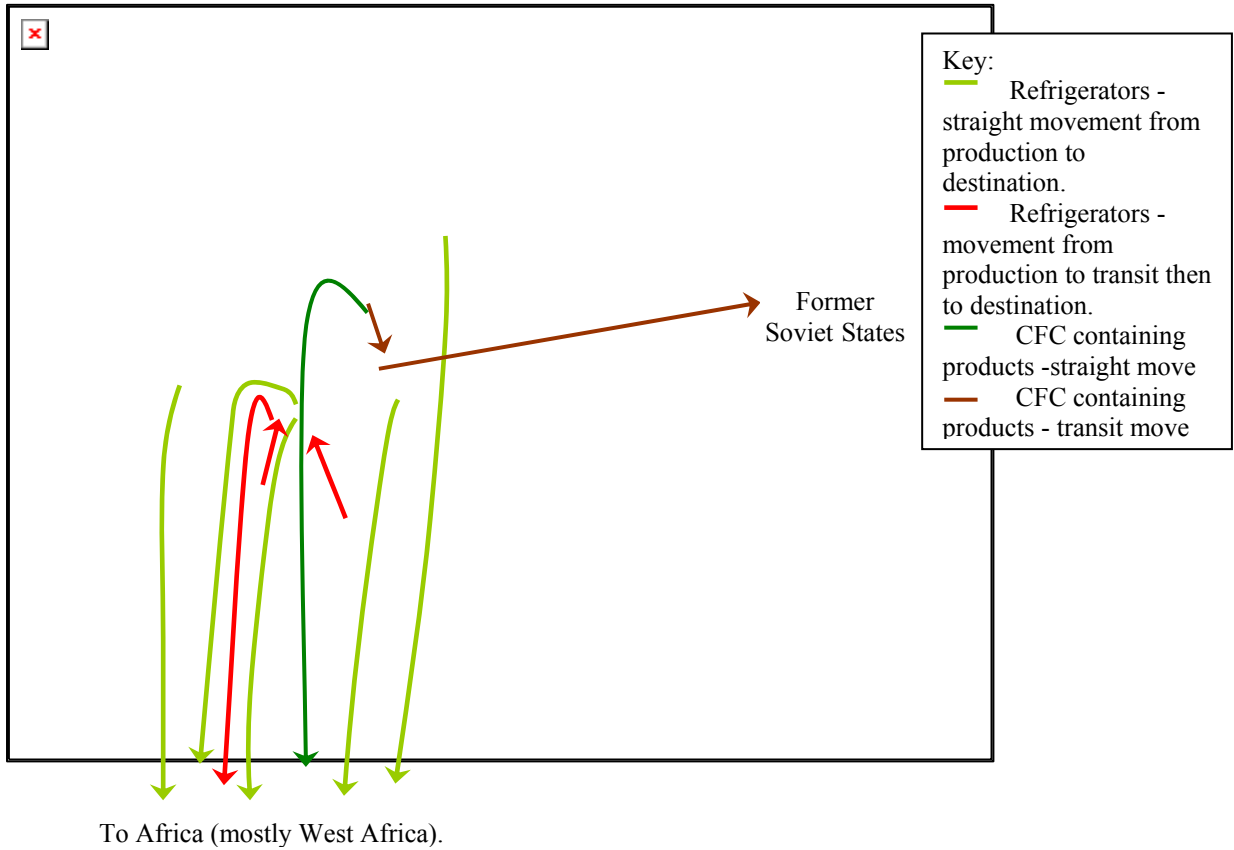


Figure 2.8: Illegal shipments of cars and car parts.

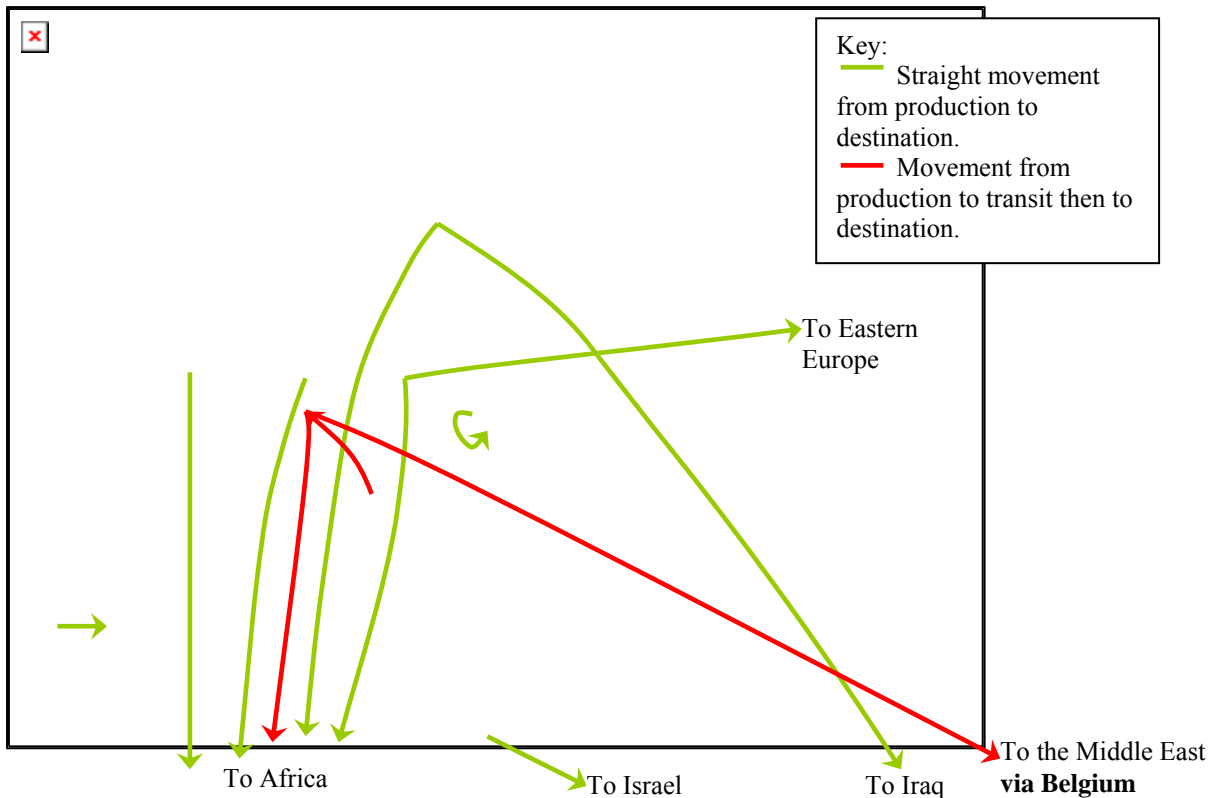


Figure 2.9: Illegal shipments of cable waste.

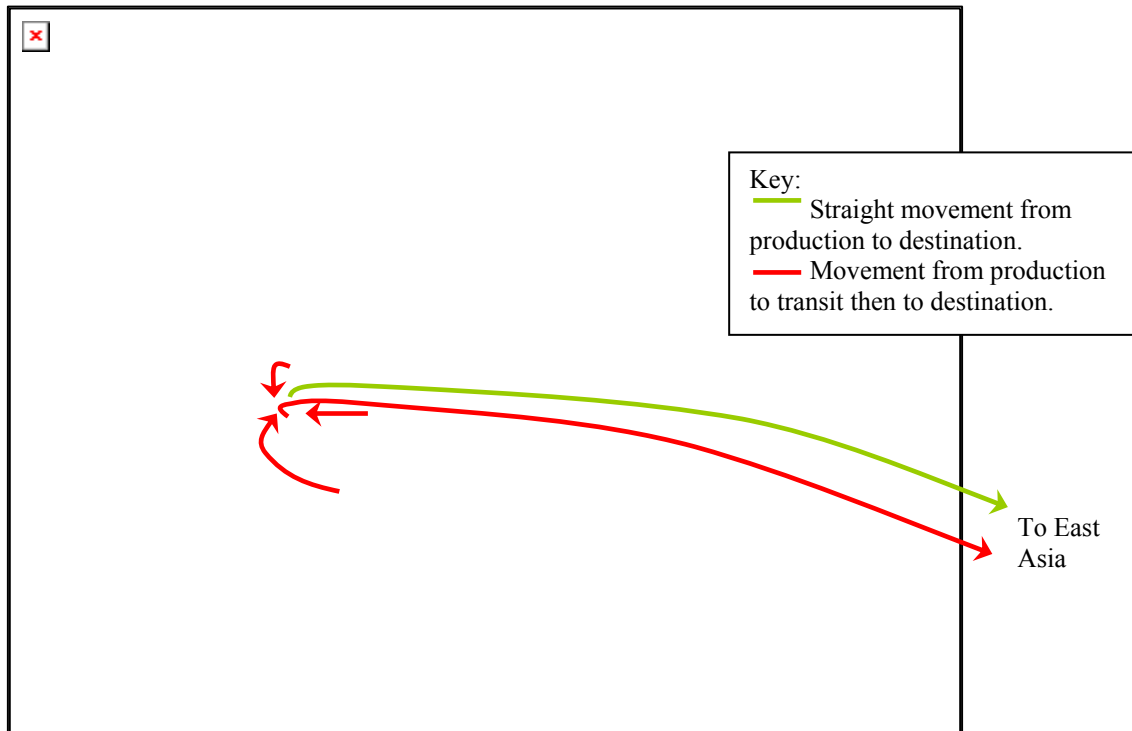
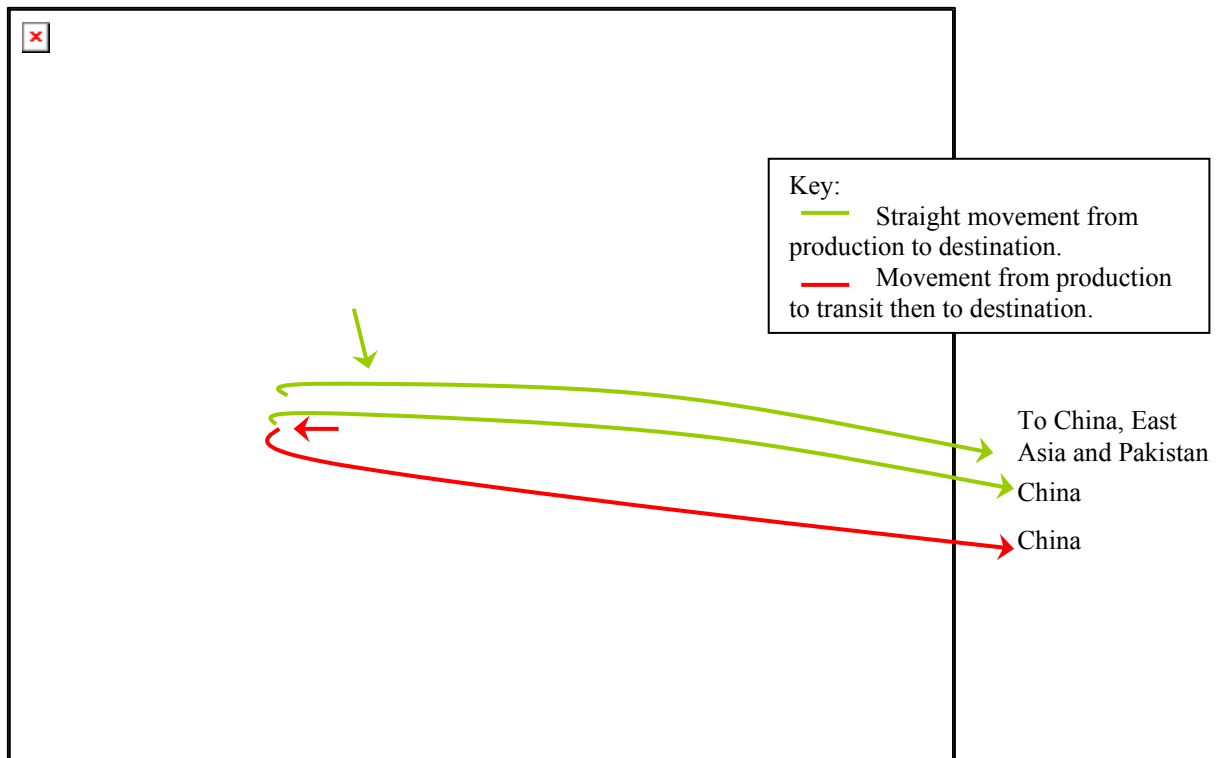


Figure 2.10: Illegal shipments of electronic waste.



Figures (2.6- 2.10) show that illegal loads of these waste types travel quite a distance to get to their destination, indicating the strength of the financial incentives and drivers.

Examining the transit routes for the specific types of waste reveals some distinct patterns:

- plastic waste tends to be exported to Asian countries (both East and West Asia)
- refrigerators and CFC products tend to go to Africa, in particular Western Africa
- end of life vehicles also go to Africa, and also to Eastern Europe
- electronic and cable waste goes to East Asia

The transit of much illegal waste through Belgium (reported by Belgium in the questionnaire) is prominent across waste types and reflects its status as a major shipping route out of and into continental Europe.

International transit routes for legal waste shipments, discussed earlier, were only available for England & Wales. However, comparing these (figures 2.3-2.5) with the illegal transit routes shown in figures 2.6, 2.7, and 2.10 produces some interesting observations. In particular, while both legal and illegal shipments of plastics tend to go to East Asia, legal shipments of refrigerators and electronic scrap seem to stay within the EU while illegal shipments go to Africa and East Asia.

This suggests two very different *modus operandi* available to offenders.

- In the case of plastic wastes, the illegal waste trade is able to utilise the well established legal trade route East Asia to conceal itself and make it difficult to detect.
- This is not possible in relation to waste refrigeration equipment as there is no thriving legal trade in such waste to Africa. An alternative method of deception will therefore be required. One such method is to declare that old refrigerators are going to Africa under green-list notification, as items to be repaired then sold on to the African market. In fact, they may be beyond repair and destined for disposal, making this an illegal shipment. Such deception is hard to detect by customs officials particularly if the refrigerators don't use banned CFC gases.

Further research into waste transit routes, and the modes of deception used would be useful in helping to identify loopholes and develop targeted enforcement strategies.

Volume of illegal waste

Table 2.5 shows that very little is known about the volume of illegal waste leaving European countries.

Of the 49 waste streams identified, only 12 have any figures attached to them and most of these are very vague.

Clearly, some of these problems appear to be significant, but the lack of any good data on the volume of illegal shipments makes the development and assessment of policy and practice very hard.

2.5 OFFENDERS – MOTIVATIONS AND METHODS

We noted earlier in relation to the number of violations reported by member states that these could reflect unintentional mistakes in completing the correct paperwork as well as more deliberate attempts to deceive the authorities.

The Environment Agency for England and Wales concludes from work they have carried out that the majority of illegal shipments may in fact be unintentional, arising from the complexity of the legislation, and documentation.

This section focuses on those offenders who *intentionally* tried to subvert the transfrontier shipping rules.

Member states were asked to rank in order of importance factors that might encourage illegal activity within their country. The results are shown in table 2.6.

Table 2.6: Ranked reasons for encouraging illegal activity (with 1 being most important and 6 being the least important).

Member states	Lack of enforcement action	Treatment/ disposal costs	Level of penalty imposed by courts	International or national legislation	Amount of bureaucracy in EU/your country	Lack of facilities within your country
Belgium	2	3	5	1	4	6
Czech Republic	1	3	2	5	4	6
Denmark	1	4	6	2	3	5
England & Wales	2	1	4	5	3	6
Germany	2	1	3	4	5	6
Ireland	2	1	3	-	-	4
Latvia	1	4	6	3	5	2
Malta	1	5	3	6	2	4
Netherlands	2	1	4	5	3	6
Portugal	3	1	2	5	6	4
Sweden	2	1	3	4	5	6
Average	1.7	2.3	3.7	3.9	4	5.0

Lack of enforcement action is considered the most prominent reason why offenders engage in illegal waste trafficking.

This response comes largely from enforcement organisations, and warrants further work to understand the current obstacles to effective enforcement, e.g. resources, training and skills, effective intelligence?

The cost of treatment or disposal for waste also emerges as a strong driver of illegal activity for all states, and is the most important reason for six states.

It is much more costly to treat, land fill, or recycle waste legally within the EU than it is to transport waste to developing countries, even taking into account the substantial

distances involved. One plastic recycler stated in [UK] *The Guardian* (20 September, 2004) that it was cheaper to send a container for disposal to China than to Scotland. Chinese recycling companies pay more for plastics than competing British companies; £120 per ton of mixed plastic bottles compared with £50 per ton in Britain (*The Guardian*, 20 September, 2004).

Reducing the cost for local treatment and disposal of non-recyclable wastes, and increasing prices paid for recyclable wastes may be a strategy worth considering as a means of reducing illegal trade.

The least important driver of illegal activity was lack of facilities within the EU. Those states that do not have facilities for disposing of certain wastes have agreements with other EU states that can take and deal with those waste streams. It is difficult for many of the smaller EU states to support waste treatment facilities for all waste streams (even though local waste treatment, recycling, and disposal is encouraged), but larger states can support a more diverse range of waste processing facilities.

Table 2.7 shows how illegal waste deception is thought to be organised.

Table 2.7: How illegal waste deceptions are organised

Member states	Not notified	Not declared	False documentation	Described wrongly	Disguised load	Mixed waste	Legal front to illegal firms
Belgium	√		√		√	√	√
Czech Republic	√	√					
Denmark	√		√				
Germany		√	√			√	
Ireland	√	√	√	√	√		
Malta	√	√		√			
Netherlands	√	√	√	√			
Portugal	√	√					
Sweden	√	√	√	√	√		

No information provided by England & Wales, and Latvia.

REF: Section 3: Question 4 of IMPEL-TFS Questionnaire

The most popular form of deception when moving illegal waste is simply not to notify the authorities what you are carrying - ‘non notification’ and ‘no declaration’.

False documentation, however, was a general theme across the member states.

The relative effectiveness of these methods is not known. Simply not telling the authorities is a crude method, and may be cited as the most common in table 2.7 because it is not very effective and most likely to come to the attention of the authorities. There does, however, seem to be plenty of opportunity to falsify documentation. Combinations of methods may be the most effective, for example using false documentation together with hiding illegal waste in loads of mixed waste.

Tightening up on the documentary systems for green-list waste and perhaps more specifically WEEE may make it harder for offenders to use these methods, and some tightening of documentary mechanisms for the shipment of green list waste may make illegal shipments more risky and harder to arrange. Increasing exports of WEEE driven by implementation of WEEE Directive may encourage further levels of illegal activity. From discussions with IMPEL states there are recognised classification issues and resulting inconsistencies in enforcement of WEEE shipments.

There has been suspicion that offenders involved in the transportation of illegal waste take advantage of their ability to evade trans-frontier checks to engage in other forms of crime. Table 2.8 shows member states views on this.

Table 2.8: Relationship between illegal waste and other illegal activities

TYPE OF ILLEGAL ACTIVITY	N states saying ‘yes’
Not linked with other illegal activity	4
Money laundering	3
Drugs	2
Human trafficking	2
Tax evasion	2
Forgery	2
Fly tipping	1
Vehicle theft	1
Corruption	1
Paramilitary activity	1
Wildlife offences	0

No information provided by Latvia.
REF: Section 3: Question 5 of IMPEL-TFS Questionnaire

Of the ten states that answered the above question, four did not believe that offenders who illegally shipped waste were involved in any other crimes.

The other six believed there was some link between illegal waste trafficking and a broad range of other crime, the most common being money laundering. Most of the answers are based, however, on a few cases. It seems fair to say that, while some offenders appear to be involved in other forms of crime, we don’t get a clear picture here of the extent to which offenders are specialist offenders, restricting their activity just to waste trafficking, are more generalist ‘traffickers’ or are more generalist offenders engaged in a wide variety of different crimes.

There is a question about the extent to which organised crime groups are involved in the illegal trans-frontier shipment of waste. Clearly, it requires some organisation to ship illegal waste successfully and is likely to involve more than one person. There are, however, conflicting views about the extent to which highly structured ‘mafia-style’ organised crime is involved. The UK Threat Assessment (2005), compiled by the National Criminal Intelligence Service (NCIS), concluded that there are no highly

structured organised crime groups dealing in the TFS of waste in the UK. This is in part based on the presumption that TFS legislation is too complex for organised crime to get involved wholesale – it's just not worth the effort. However there is indication of involvement of organised crime within Ireland, with waste crossing illegally into the UK.

Legambiente (2003), however, reports more involvement of organised crime and corrupt public officials in Italy. Research by Brown and Clarke (2004) suggests that small, informal and loosely structured networks are becoming a more common form of organised crime than traditional 'mafia style' models. These consist of offender 'entrepreneurs' with specialised knowledge of the area, working together to exploit opportunities for crime. It seems likely that this form of organised crime is more widely involved in the illegal transfrontier shipping of waste.

2.6 ENFORCEMENT

While the EU has regulations on waste traffic in general, the enforcement of these regulations is the responsibility of each of the individual Member States.

As a result, enforcement organisation, resources, and sanctions available are different in each Member State.

While some states may have comprehensive enforcement strategies, others will have only recently put new plans into place; while some states have stringent fines and sanctions, others will have lower fines and sanctions. Some new EU Member States do not have any domestic legislation in place to supplement EU Regulation and provide enforcement powers. For example, the Czech Republic is currently having problems with car wrecks being imported from the Netherlands. Management or repatriation of these wrecks once in the country is difficult due partly to a lack of domestic waste legislation.

This section examines the resources that the member states currently have at their disposal, the problems they are having with enforcement, and what their countries plans are for the future enforcement of illegal waste shipment.

Enforcement organisation

Table 2.9 shows the agencies in each member state responsible for taking enforcement action in relation to illegal waste shipment.

The majority of states in table 2.9 have a combination of agencies responsible for the enforcement of waste regulations. These agencies tend to be customs, the police, and the respective environment agency or environmental police. However, both England & Wales, and Portugal rely solely on their environmental agencies to carry out the enforcement role.

Table 2.9 Enforcement agencies responsible for regulating the shipment of waste

Country	Environment agency/police	Police (land/Traffic)	Customs	Police (sea)	Police (transport)	Other
Belgium	√	√	√	√	√	Competent agencies
Czech Republic	√	√	√			
Denmark	√	√				
England & Wales	√					
Ireland						Local Authorities
Latvia	√	√	√			
Malta	√	√	√			
Netherlands	√	√	√			
Portugal	√					Competent authority
Sweden		√	√			

REF: Section 2: Question 7 of IMPEL-TFS Questionnaire.

The effectiveness of these different arrangements is not known, and worth exploring further.

A single-agency approach has the advantage of clarity of responsibility and lead. A multiple-agency approach, however, may help with liaison and sharing of information. In both Belgium and the Netherlands, a Memorandum of Understanding between regulatory bodies has led to the benefits of data sharing, and co-operation on TFS waste projects.

Formal arrangements for information sharing between the Competent Authority and other regulatory bodies were in place in most of the ten states that answered this question, and all ten indicated that regulatory bodies collaborated by sharing intelligence on illegal waste activity. Five states, however, felt there were problems here. Ireland, for example, commented

“...there is a tendency to be secretive given that local operators may be involved or that professionals may be unwilling to take responsibility for historical problems that still persist and which they have inherited. However, once removed from the local forum and into the wider workings of the Enforcement Network, information sharing is taking place.”

Obstacles to effective enforcement

The member states were invited to comment more generally on the failures and constraints they had experienced in taking enforcement action, via a ‘free response’ question. Six problems were mentioned by three or more member states. These are:

- lack of resources
- interpretation of law and co-operation between countries
- lack of expertise
- legal definitions
- weak legislation, and
- the importance of violations being underestimated by superiors or the Criminal Justice System.

The most common theme was lack of resources, with five states feeling that more resources would allow them to more thoroughly and effectively inspect containers and paperwork and identify suspicious activity. Related to this was the lack of expertise.

Definition and interpretation of the law was mentioned by 3 states as a problem. Definitions of terms such as ‘waste’ were considered problematic, as was the interpretation of the legislation between countries. The ‘Green/Amber/Red’ categorisation of waste was also mentioned as hard to interpret. Overall three of the member states considered the waste legislation weak.

One of the difficulties enforcement agencies face is the lack of importance given to waste offences. Lack of understanding and support from supervisors and other parts of the criminal justice system creates difficulties for enforcement officers in bringing offenders to justice, undermines morale and is conveyed to offenders.

Training and tactics

Table 2.10 shows the level of training in each of the 11 member states, tactics used to catch offenders and working relationships with neighbouring countries.

Table 2.10: Training and techniques for detecting illegal waste movement

	Yes	No	n/a	No response
Is training provided to CA or other bodies in detecting and regulating illegal traffic	6	3	0	2
Should some consistent training be developed across the EU	10	1	0	0
Do you carry out highway checks of vehicles:	7	4	0	0
Random	3			
Intelligence-led	2			
Both	2			
Do you carry out port checks	7	2	1	1
Do you collaborate on highway checks with bodies from neighbouring states	7	1	2	1

REF: Section 7: Questions 4 -11 of IMPEL-TFS Questionnaire

Most notable in table 2.10 is the near complete agreement to the question asking member states if there should be consistent training in the EU for identifying illegal waste.

All but one agreed that this was a good idea. A consistent training approach across the EU would also require standardisation of definitions and interpretation of legislation.

In addition to training for enforcement staff, it may also be beneficial for those who work in the waste trade, such as shippers and brokers, to be properly trained and made aware of waste legislation and documentation.

The aim would be to minimise the number of shipments of waste which are technically ‘illegal’ due to the incorrect filling out of documentation. This would save enforcement officers time in having to deal with such cases, and also the traders and brokers who want to send their shipments without any undue delay. Practically this training could probably be conducted by the CA in each of the Member States.

Most states check their land and marine borders, or were soon to bring in a policy to do so. Seven states also made their checks in collaboration with other agencies. The techniques used for checking land routes varied with some conducting intelligence-led checks and others random checks. While all states felt that highway checks are important, the relative effectiveness of these different approaches is not known and is worth examining.

While intelligence-led operations may target resources better, the gathering of useful intelligence is itself very resource intensive.

Random checks may offer more of a visible deterrent to offenders. It has been found, for example, to have helped reduce levels of drink-driving (Homel, 1988).

Three states stand out as being rather different. The Czech Republic, Malta and Portugal reported that they neither train their CA staff, nor conduct comprehensive highway and port checks. It is worth noting, however, that Malta and Portugal are planning national initiatives to improve their enforcement capacity.

2.7 COMMUNICATIONS

Problems in information sharing have been noted above. Table 2.11 explores further the extent to which data is kept on the problem of illegal transportation of waste.

Only 4 of the 11 member states that returned a useable questionnaire had used a ‘common database’ to supply their answers, although it is possible that misinterpretation of what is meant by ‘common database’ may underestimate the extent to which data is available within states. Nearly all felt that a common database would be useful within their country and across the EU as a whole.

Table 2.11: Waste data kept in member states

Question	No. of states saying 'yes'	No. of states saying 'no'	No answer
1) Has a common database been used to provide the information given above?	4	7	
2) Would a common database be useful in your country?	10	1	
3) Would a common database be useful across the EU?	8	2	1
4) Have you been asked to provide data on illegal activity in any other EU project?	6	5	
5) Are records of the outcomes of enforcement action kept?	9	2	
6) Have you made any assessment of threat of illegal waste activity in your country?	4	7	

REF: Section 5 of IMPEL-TFS Questionnaire.

Most member states kept records of the outcomes of enforcement action. They extent to which they could draw on these readily for analytic purposes, however, must be suspect given the rather vague and incomplete answers to previous questions.

Less than half of member states had made, or started, a threat assessment of illegal waste activity in their country. The assessments provided to us are summarised in chapter three.

A priority for any threat assessment should be to assess the quality of data and information available on the problem.

Given that the problem crosses national boundaries, it would be worth assessing the scope to develop and maintain either a pan-EU waste management network or database, or a joint database shared and maintained by states particularly affected by the problem. Such a database would hold details about offenders, crooked companies, new or common deception methods, and all other information relevant to detection and prevention work. Such a network would mean that enforcement agencies would be able to 'work together' but within their own states to catch offenders which operate at an EU wide level.

CHAPTER THREE:

NATIONAL THREAT ASSESSMENTS

This chapter focusses on individual threat assessments carried out by member states. These threat assessments are important as they are able, potentially, to examine more closely issues affecting individual states. Threat assessments from five Member States are explored here, three from more experienced states who have been in the EU community for some time, while two from new member states who gained accession on 1st May 2004.

3.1 THE EXPERIENCED MEMBER STATES

The United Kingdom, the Netherlands and Sweden supplied either full copies or summaries of their recent threat assessments for this report. It is understood that several other IMPEL member countries have also carried out some threat assessment work (e.g. Norway, Finland) but outcomes of this work was not available at the time of this report. Germany subsequently provided a summary of recent investigations.

There are two distinct methodologies used within this group. The UK assessment is based mainly on interviews with enforcement and other relevant groups, resulting in a threat assessment based on professional experience and opinion. A similar approach was adopted by Germany.

The approach used by the Netherlands and Sweden differs and it is carried out for different purposes. It is used to direct, or re-direct enforcement resource. Its methodology is to cross-reference databases, resulting in more data-driven threat assessments. This process however has led to a good basis of 'waste profiling'.

The following boxes summarise their work, the results they achieved and conclusions they came to.

Threat Assessment

United Kingdom

The threat assessment for the United Kingdom was conducted by the National Criminal Intelligence Service (NCIS). The following are those they approached in order to conduct their assessments.

- a) UK police forces
- b) the 3 UK Competent Authorities
- c) conducted 3 TFS case debriefs from investigative workers at the Environment Agency.
- d) HM Customs and Excise
- e) the Border Agency Working Group
- f) sources in the legitimate waste trading industries

Key Judgements

- illegal TFS is not considered a 'serious crime' and there is limited involvement of organised crime affecting the UK, except for the border between Northern Ireland and the Republic of Ireland. In the Republic organised criminals are paid to collect waste, which they then illegally dump in Northern Ireland, creating a lucrative business. However, this is seen as an isolated incident that only occurs because of the monetary difference in disposing of waste; the Republic pay a far higher price for waste disposal than the UK.
- TFS legislation is complicated for enforcement officers to understand, and for authorities to prosecute. Therefore with limited prosecutions the illegal TFS business is less risky than a lot of other crime.
- Illegal TFS exported from the UK largely goes to developing countries because of the cheap labour market and lack of environmental law (or use of it).
- The majority of the illegal waste imported to and exported from the UK is Green and Amber listed. No Red list waste has been reported.

Impact and Harm

- Illegal traders are able to undercut prices of legitimate traders, which provides no incentive for the legitimate industry to expand and develop.
- Repatriation of illegal shipments is high, costing tens of thousands of pounds to repatriate a shipping container, which the UK government is obliged to pay if the company who shipped it originally cannot be identified or found.
- Environmental harm that UK waste can have in developing countries where it is illegally shipped.

The UK assessment reaches the view that the threat from illegal transfrontier shipments of waste is relatively small.

This would be consistent with the data reported both to the Basel Convention and to the survey reported above, showing that the UK is a relatively small exporter/importer of waste, compared with other EU states such as France, Germany, Italy, Belgium and the Netherlands. However this should be considered in relation to other judgements made within the Assessment;

- a warning that WEEE exports are an emerging threat due to drivers leading to increased production
- illegal trade predominately concerns OECD green and amber list wastes
- main destination countries appear to be India, China and West Africa

- unintentional criminality results from the complexity of TFS legislation but this also allows masking of deliberate abuse. Complexity discourages involvement of average career criminals and a relatively small number of criminals are therefore thought to be behind the majority of illegal TFS incidents in the UK
- The most profitable area of work where illegal TFS of waste is concerned is brokering. Brokers are behind the significant amount of waste trading, operating at a distance allows them to operate illegitimately with reduced risk of detection
- An ethnic link between brokers and destination countries has been identified
- The intrinsic value of waste is not high enough to attract career criminals and hence they do not appear to be making substantial profits from involvement in illegitimate activities. The attraction of illegal TFS is therefore uncertain
- There is a lack of consistency where data recording, intelligence sharing and cooperation amongst CA's. Formal procedures are needed for effective response to illegal TFS
- There is no formal training to familiarise law enforcement, courts, industry and others (e.g. brokers, shipping agents, etc) involved in TFS

Threat assessment in Germany is carried out by Federal Criminal Police Office every two years. The last one was carried out in 2002. Recently the Office have carried out an additional study in association with in co-operation with the Bundeskriminalamt's Research Unit on Criminology and Criminal Investigation. The study, *Criminal activities on the waste disposal market due to the enlargement of the EU and the German prohibition to dump certain wastes in landfills* consisted of expert interview and analysis of statements made. It was completed May 2005 and a summary is included in appendix C.

Key findings are provided in the box below.

Germany

The assessment considered two key aspects

- Enlargement of EU
- German domestic law on prohibition of dumping certain wastes in landfills

It concludes that;

Germany will increasingly become a transit country for waste transports. Moreover, it is feared that the number of illegal transports will rise as well. The experts share the view that the predicted suction effect [of waste into Germany and new EU Member States] can be curbed by stringent law enforcement both at home and abroad.

Key findings include;

- There has been an increase in recorded crime in the waste disposal industry, the majority of which is believed to be white collar crime
- There is not enough capacity in Germany for waste arisings
- The Police lack the powers, expertise and training required for effective enforcement
- There is often a lack of evidence to allow for prosecution
- German waste law is complex which creates difficulties for implementation
- There is a high risk of illegal waste exports from Germany to Poland and the Czech Republic.

Main headings for report conclusions were

1. Changes of the market and waste disposal capacities
 - Increased waste exports from the old EU to the new member states
 - Increasing costs for waste disposal in Germany
 - Bogus recycling practices involving cross-border shipments throughout the EU
 - Different waste disposal standards in Western Member States and enlarged EU encourage illegal practices
 - German environmental standards too high
 - Increased cross border waste shipments of waste including illegal transports via recycling methods (green list)
 - Danger of illegal follow-up exports to non-EU countries and Far East
2. The German privatisation and deregulation policy
 - Public private partnership models ideal basis for corruption
 - Problems in relation to raising evidence in criminal proceedings
3. Legal framework and the sequent problems
 - German waste laws are unmanageable / problems with implementation
 - Problems relating to synchronisation of German and EU law
 - Problems relating to implementation of law also in other EU-states
 - Lack of sharp distinction between recycling and disposal of waste causes law enforcement problems and encourages bogus recycling practices
 - Harmonisation of environmental standards throughout the EU not likely earlier than in 10-15 years
 - Lack of uniform transitional provisions regarding waste trafficking with the new member states causes law enforcement problems and encourages illegal practices
 - Law enforcement problems in public tendering procedures in Germany
 - Fight against structural corruption requires persistence of officials in the field of law enforcement and criminal prosecution
4. Lack of control
 - Number of enforcement cases of illegal transborder shipments of hazardous waste has always been low
 - Possible reasons: Huge number of cases undetected, lack of control or actual decrease
 - Combatting environmental crime has relatively low status at police/judiciary in Germany
 - Deficient training, competence, resources and equipment
5. Forecast regarding crime trends
 - Low risk of illegal waste imports from the new member states
 - High risk of illegal exports to the new member states
 - Modus Operandi: Re-declaring hazardous wastes as harmless recycling waste / Bogus recycling
 - Risk of illegal waste dumps in Poland and Czech Republik high
 - Deficient intensity of inspections, needs to include transportation and producing companies
 - Corruption in new member states in connection with construction of waste disposal infrastructures and with privatisation of public waste disposal duties as in Germany
 - Foreign investors / internationalisation of corruption and white-collar-crime is a high risk for a well-functioning market

A number of issues were identified in the German assessment. Many were consistent with those identified elsewhere, e.g. UK Threat Assessment.

- Germany will increasingly become a transit country for waste transports. Moreover, it is feared that the number of illegal transports will rise as well. The experts share the view that the predicted suction effect can be curbed by stringent law enforcement both at home and abroad.
- bogus recycling practices are considered a problem that exists throughout the EU and lack of standards and consistent classification/interpretation facilitates illegal practice
- corruption is considered a high risk and contributory factor in illegal practices especially within German privatisation and deregulation policy
- regulatory control is weak due to lack of resource, competence and priority for environmental crime
- the experts forecast increasing levels of waste trade and illegal transfrontier shipments

Waste Profiling

An example of a more **data-driven assessment** ('waste profiling') is provided by the **Netherlands**, where there is a good relationship between Customs and Statistics Netherlands (CBS) and the VROM inspectorate, who are the CA for the Netherlands. There is a formal arrangement between agencies for data and intelligence exchange.

Netherlands

The Dutch approach to threat assessment was to develop a problem profile of the types of waste, waste codes, and shipping companies which had previously been associated with illegal shipments. This data was used to create a 'start code list' of waste worthy of close attention. Secondly, a 'country list' was developed showing all country destinations and the corresponding list of waste which they did not accept. Thus by selecting suspected waste from declarations using the start codes list, then cross-referencing with the country list, the enforcement officers could identify goods which could not be exported, or exported only with permission. Lastly the declarations were checked to see if those transporting the waste had approved notification. Those goods which did not have notification indicated potential illegal trafficking, and thus set enforcement priorities for those particular goods. The profile is updated annually.

Results from the 2003 profile showed that...

- 72% of the quantity (93% of declarations) exported to non-OECD countries potentially constituted illegal trafficking (i.e. may not have been notified or may be prohibited for export to a particular country).
- 50% of the quantity (77% of declarations) exported to New EU countries (who gained accession on 1st May 2004) potentially constituted illegal trafficking.

To produce this profiling it requires co-operation between customs and environmental enforcement and other agencies. From the outputs it is possible to target waste streams for inspection. It is planned to target WEEE in 2005.

The Netherlands example shows how it is possible to develop a system to identify on a more objective basis suspect shipments for targeting. The scale of problem revealed on this basis seems extensive.

Sweden have a similar approach to the Netherlands with their threat assessment, however their assessment is conducted by customs only, for customs purposes with little involvement of environmental regulators.

Sweden have conducted a threat assessment or problem profile every 2 years over recent years. One conclusion is that Swedish Customs would perhaps benefit from a closer working relationship with their Environmental Protection Agency, especially in expanding their list of waste codes. They have also found that awareness within industry is low for TFS requirements.

In connection with the IMPEL TFS Seaport I Project, Swedish customs carried out a problem profile of waste very similar to the profiling carried out by the Dutch. Swedish customs examined all export declarations from the last year relevant to the red, green and amber lists in the waste Regulation, added information from police and CA's as well, and looked at customs codes identified by other MS's such as the Netherlands. The intention is to use the result and create profiles for customs computer system and carry out control measures in co-operation with the CA's.

Sweden

Swedish customs conduct a national threat assessment every two years, for the use of customs management and customs officers. The results of the assessment are used for making decisions about the direction of customs activities and prioritisation of current problems. In particular, Sweden has identified illegal waste and ODS's as priorities.

The way in which Swedish customs carry out their threat assessments is very similar to the problem profiling carried out by the Dutch. Swedish Customs identify which goods codes they want to investigate in cooperation with police and CA's, as well as looking at the codes identified by other MS's such as the Netherlands.

In the latest threat assessment concerning waste, a lot of work effort has been spent trying to give a concrete form to the problems involved, to discuss the definition of waste and to give examples of areas of specific concern in waste. Because of the lack of judgements, preliminary investigations and knowledge about the area it has not been possible to estimate the quantity or the extent of waste export.

Interviews with companies involved were carried out and highlighted further, a picture of general ignorance about the requirements to enable shipments of waste to be conducted legally.

Findings from the latest threat assessment has shown that:

- Illegal exports leaving Sweden go to both developing countries as well as other Member States.
- There are too few waste codes within the customs coding system to monitor all waste types. Co-operation with other authorities, especially other CA's is necessary because of the complexity of the area.
- Co-operation with other authorities, especially other CA's is necessary because of the complexity of the area.

This profiling vary in their approach to threat assessment, with the UK relying on professional experience and the Netherlands/Sweden analysing recorded suspicious incidents as well as customs data. It would be very helpful if a common approach or minimum standards for threat assessment could be proposed for member states. A good model to follow would combine the best of these two approaches, with professional ‘hunches’ and opinions being elicited and tested through analysis of available data.

One of the reasons why these threat assessments are so different methodologically is that their purpose is different. In particular, the Dutch and Swedish approach arises from the need to prioritise enforcement activity, and to develop an operational tool with which to better target resources. Such a tool could not have been developed without the close collaboration of Customs and VROM. There are lessons here for other member states.

Member states should also aim to develop threat assessments that can be shared, if not with the whole of the EU, then at least with their closest neighbours, or their biggest importing and transiting countries.

Understanding the problems affecting particular states would help identify suspect shipments for export by other states. Common threats among neighbouring states may help facilitate cooperation between those states in order to reduce the threat.

3.2 THE NEW MEMBER STATES

Ten new Member States gained accession to the EU on the 1st of May 2004. The majority of these states were former Soviet States, and their new EU membership pushed the EU border further to the east. These new states, therefore, not only had the task of adhering to all EU regulation, but they also became responsible for protecting the new EU border running along the east of their territories as well as having to deal with the consequences of new trade coming in from the EU.

These are challenges indeed, and makes them particularly vulnerable to the threat of illegal transfrontier shipments of waste.

The following case studies give examples of two new Member States, the **Czech Republic and Malta**, and the problems they now face as border states.

It is understood that both Norway and Germany have carried out some assessment of threat from illegal TFS but no information was available to use within this project.

The Czech Republic

The Czech Republic has a problem with car wrecks being imported from the Netherlands and Germany. These vehicles are being imported on the basis that they will be repaired and sold as second hand cars to the Czech market. In reality the cars get piled-up in places which are neither scrap yards nor second hand car yards. Instead the car wrecks are left in the open to decay, resulting in environmental pollution through oil, petrol, diesel and other fluid leaks, as well as visual pollution.

The problem the Czechs have is establishing which wrecks are 'waste' and which wrecks can be legitimately rebuilt and re-sold. At the point of import, it is hard for Czech Customs officers to establish which cars could be re-built, and which could not. Once the illegal traffickers are in the country they can simply dump the vehicles and claim that they (the cars) are waiting to be rebuilt. Domestically there are weaknesses in Czech enforcement legislation which need to be tightened up in order to better address this problem.

There is a need for the Czech enforcement agencies to cooperate with those agencies in the countries of dispatch to stop the shipment of 'waste wrecks' in the first instance. Tackling the problem from both producer and destination countries makes more sense, as it should cut illegal trafficking even further. In addition, the Czechs could learn good practice from other states who have more experience in dealing with this particular problem.

The Czech case study highlights a number of issues – it shows how offenders recognise and exploit new opportunities dumping waste very quickly, and how new member states could be assisted by the more experienced EU states.

Malta

Even though Malta is a new member of the EU, it has immediately had to play an important role as an EU 'Border State'. Border States have the responsibility of making sure that anything entering the EU is doing so legally. Herein lies Malta's problem. Malta has a large sea territory that stretches off the east coast of the island and continues up to Greece,. This sea territory is very large for such a small state, and enforcement in this area has been an issue.

The Mediterranean Action Plan (MAP), estimates that 30% of international sea-borne trade (by volume) is either destined for, departing, or passing through Mediterranean waters. In addition 25% of oil transported by sea transits the Mediterranean. Having to deal with just some of the Mediterranean traffic that arrives at its ports, and passes through its sea territory is a large task, which makes it easy to understand why Malta's enforcement agencies are being stretched.

Malta also has experienced problems arising from the sea boundaries it shares with other EU states. Sometimes coastguards from other EU states find illegal waste shipments passing through the waters that border themselves and Malta. These ships may then be sent to Malta for them to deal with the illegal shipment, resulting in further pressure on Malta.

Malta has a population of just under 400,000 people. As one of the gateway countries to the EU, it is estimated that 30% of the world's shipping passes through Malta

Freeports. However Malta has low experience in regulating international shipments of waste and as a small and new EU member state this highlights the need for support from the EU. One way in which this might be provided is by Malta's EU neighbours working more closely with Malta in relation to illegal shipments discovered on their sea borders.

Malta does however have experience of one incident in recent years concerning illegal shipments under the Basel Convention.

3.3 Model for Threat Assessments

There is potential for other IMPEL members to carry out threat assessments. This will help in the aspect of gathering intelligence and data but also to raise the profile of illegal transfrontier shipments and threats from.

It is possible that expert interview can be carried out as in UK and Germany either by consultant police and criminal agencies or by experts within the IMPEL TFS Network. Key issue headings, questions and format can be obtained from countries who have carried out threat assessments.

It must be recognised that political and policy issues may result from this approach and should therefore perhaps be viewed as a longer term approach.

Alternatively, or in short term the waste profiling technique has advantages in that it can help identify priority risks (waste streams and/or waste destinations), and can be carried out in collaboration with other Agencies and countries. Experiences have demonstrated that this approach requires the sharing of intelligence and data between national regulatory agencies e.g. Customs, Police, Environmental regulators and that has been shown within the Questionnaire and other studies, to be difficult in some countries.

The culture of intelligence sharing and collaboration between regulatory agencies within countries needs to be promulgated.

Equally waste profiling can be useful in concentrating effort on compliance monitoring and enforcement between countries. This report has highlighted a number of waste streams e.g. WEEE, and destinations e.g. new Member States, India, China, which could be priorities for regulatory collaboration between Member States. Sweden and Netherlands have developed compatible methodologies for waste profiling.

IMPEL TFS Network is to consider identifying and agreeing such priority waste streams/destinations for further collaborative work.

CHAPTER FOUR: OTHER SOURCES OF INTELLIGENCE

4.1 Other National Investigations

During 2004 the Environment Agency carried out some joint investigations with the WEEE industry (ICER report 2004). The purpose of this collaborative project with ICER was to gather data on types, amounts and destinations of WEEE exports from the UK. It also investigated the nature of the export trade (sources of equipment and routes to export), the number and types of exporters, the condition of equipment being exported and the value of the WEEE export market.

Information was gathered from WEEE processors, asset managers, equipment brokers, exporters, retailers, producers, local authorities and community sector organisations. Extracts from this report are provided below.

Extracts from ICER WEEE Report

A wide range of electronic and electrical equipment is exported from the UK to non-OECD countries. This project focused on IT/telecom equipment, large household appliances and consumer electronics. These were the only categories of equipment for which data on quantities exported were available.

The research estimates that 160,000 tonnes of waste equipment were exported from the UK in 2003. This is thought to amount to between 10 and 15 per cent of WEEE arisings in the UK. This tonnage was made up of IT/telecoms, large household appliances (including fridges) and TVs.

Some 133,000 tonnes were IT/telecoms equipment. This came largely from businesses. Of this total, 110,000 tonnes were declared exports, properly documented on shipping forms and going to permitted destinations. A further 23,000 tonnes were undeclared or grey market exports going to non-OECD destinations. Of this amount, at least 10,000 tonnes are estimated to be used PC monitors.

Some 30,000 tonnes of large household appliances and TVs were also exported from the UK in 2003. This was domestic equipment sourced from civic amenity sites and retailer take-back. TVs made up an estimated 11,000 tonnes (500,000 units) and fridges 7,500 tonnes (150,000 units). This research found no evidence of fridge export which did not comply with the ODS regulations.

This research found divergence of opinion as to whether some of the business equipment that is exported is, in fact, actually waste. This is because it is unclear whether end-users who get a return from brokers or asset managers for their equipment actually intend to discard it or to sell it. Domestic equipment, however, has clearly been discarded by the consumer, with the possible exception of equipment donated to charity.

Commercial equipment for export can either be tested and working (usually only high value items, e.g. computers, the resale value of which makes this worthwhile), untested, or tested and not working. Domestic equipment is neither tested nor repaired before export. It is only economically feasible to carry out repair in countries with access to cheap labour and components.

Ultimate destinations of equipment include Eastern Europe, the Far East, the Indian sub-continent, Africa and China. Transhipment destinations include Rotterdam, Gibraltar and the Middle East (especially Dubai).

The research estimates that the export value of the monitors, TVs, video-recorders and large household appliances exported in 2003 exceeded £7 million pounds (€10M). The total value of the export trade, including declared exports, is therefore estimated to be worth tens of millions of pounds.

Approaches to reducing grey market exports include better monitoring and checking of shipped consignments, and auditing of WEEE processors and those who collect equipment to ensure transparency and that items for export are properly declared. Further research is also needed to identify ways of increasing traceability, tracking down grey market exporters and practical ways to allow WEEE exports to continue where this practice is both legally and environmentally desirable.

Grey market export of IT/telecoms

There are also, however, undeclared exports of certain types of material, equipment and components. These include PC monitors (CRT or LCD), all types of computer peripherals (e.g. mouse, keyboard), batteries, external cables and power adaptors. These items are exported because they have a low or negative value in the UK and the rest of the EU. CRT monitors, for example, cost around £5 per unit to recycle in the UK and if not recycled must be disposed of as hazardous waste. Yet export brokers are prepared to pay between £2 and £3 a unit for visibly undamaged monitors which are untested, and therefore possibly not working.

Unless the end-user is prepared to pay for the recycling of these types of items, WEEE processors do not in general choose to take them but are normally required by their customers to do so as part of a job lot. They then have a choice of paying to dispose of or recycle these components or selling them on. Some of the processors who export this type of equipment do so knowingly. Others that sell to UK-based companies claim to have no knowledge or interest in the ultimate destination of this material. By selling equipment or material that would otherwise have to be disposed of, processors can turn a cost into a positive return. They can also claim to their customers that they are achieving a high recycling/re-use rate.

The quantities of grey market exports are difficult to estimate but are certainly significant. One of the exporters contacted claimed to be shipping four 40ft containers a week. It has not proved possible to get any hard data because grey export is, by definition, not declared. Based on anecdotal evidence and knowledge of the industry, the following assumptions have been made.

- The ICER survey is likely to have understated the amount of IT/telecom equipment being processed in the UK because not all processors were included. An estimated understatement of 10 per cent, with 20 per cent of these grey market exports, would give 7,000 tonnes of grey market exports.
- The figure quoted for bona fide export is also likely to include at least five per cent or 2,000 tonnes of grey market exports.
- The figure quoted in the survey for amounts of equipment refurbished is also likely to include at least five per cent or 1,500 tonnes of grey market exports.
- The figure for the total amount of IT/telecom equipment processed in the UK is also likely to include at least five per cent or 12,500 tonnes of equipment or material sold to export brokers.

This approach suggests that there could be some 23,000 tonnes of grey market exports of IT/telecom equipment per annum. Of this, at least 10,000 tonnes is likely to be CRT monitors.

Destination and fate of equipment

IT/telecoms

This research has confirmed what is widely known in the industry, that is that export destinations include:

- China
- Dubai — transhipped and/or processed
- Eastern Europe, particularly Russia and Croatia
- Gibraltar — transhipped
- Hong Kong
- India (Kandla) — transhipped and/or processed
- Jordan
- Pakistan
- Rotterdam — transhipped (also sent in by road freight)
- Singapore
- Africa, particularly Nigeria

The route through Rotterdam is of particular note. Goods leaving the UK by road and heading for a European Union destination require little in the way of documentation because there are no transfrontier shipment issues within the EU. The sheer volume of container traffic through the port makes it difficult to detect mis-declarations.

Conclusions

Data on WEEE exports

It is difficult to get reliable data on WEEE exports — amounts of equipment, number of operators, and value of this market. This is because export brokers have no incentive to give this information. However, this research estimates that there are around 30,000 tonnes per annum of waste domestic equipment being exported, of which at least a third — TVs — could be classed as hazardous waste.

In addition, some 133,000 tonnes of commercial equipment are exported, 23,000 tonnes of which are grey market or undeclared exports. Nearly half this grey market tonnage is made up of monitors but some of the other commercial equipment may also be classed as hazardous waste.

Factors contributing to grey market exports of WEEE

IT/telecom equipment

There are two main factors contributing to grey market exports of IT and telecom equipment.

- **Economics.** It makes economic sense for processors of commercial WEEE to sell on equipment, components and materials that are uneconomic to process or repair rather than pay for these items to be disposed of or recycled. Used CRT monitors are a prime example.
- **Lack of control and regulation.** WEEE processors and re-furbishers are allowed to trade in materials or components and some processors regularly sell certain types of equipment on to UK-based brokers without enquiring about the ultimate fate and destination of that material. Others knowingly sell to overseas-based export brokers. Similarly, re-use of domestic equipment is unregulated and there are no controls on totters on how they sell equipment.

The Netherlands has been carrying out investigations profiling waste streams using customs data. This was discussed in Chapter 3 above under National Threat Assessments but it would be useful here to illustrate some of the thoughts within this work. Extracts from the report '*Pick the low-hanging fruits first*' is provided below.

Introduction

Customs and Statistics Netherlands (CBS) have a reasonably good understanding of the export of goods. These export streams include waste. It would, of course, be odd if businesses were to export waste to prohibited destinations, duly declare this to Customs and then simply be allowed to go on their way. The VROM Inspectorate therefore collaborates with Customs to select potential cases of illegal trafficking from the information on the customs declarations. However, to date we have not had a complete picture of transfrontier waste and goods streams. We have therefore not been able to establish the level of compliance and there has been no proper basis for setting enforcement priorities. It goes without saying that we could use the available information better. The VROM Inspectorate has therefore launched a Prioritisation and Monitoring project – PriMo - in collaboration with Customs and the police.

Results

The method described above came about 'on the job' and has therefore also been tested in practice. Three cases were worked on in more detail, the results of which are given below: exports to non-OECD countries (developing countries), exports to the countries that acceded to the EU on 1 May 2004, and exports of electronic waste.

Exports to non-OECD countries

Exports to non-OECD countries are a high priority for the VROM Inspectorate. This is because non-OECD countries are developing countries where there is a relatively high risk of wastes being dumped without any environmental protection measures or processed in a manner that is harmful to the environment. In 2003, almost 87.9 kilotons of 'waste' was sent to non-OECD countries - exports that are always prohibited without a decision. A total of 1,597 declarations were involved. The IMA granted approval for export for 111 declarations of wastes submitted to Customs, and the IMA did in fact receive notification that these exports actually took place. This involved 24.4 kilotons.

Exports to accession countries

On 1 May 2004, ten countries acceded to the European Union. Since the accession date, exports to these countries have no longer required a customs declaration. However, a transitional arrangement under the EU Waste Shipment Regulation for the export of wastes will still apply for a number of years in five of these countries, which means that many wastes are still subject to notification. Up to the date of accession, it was possible to use customs information to obtain an insight into possible illegal trafficking to these countries.

In 2003, almost 3.5 kilotons of 'waste' was exported to accession countries - exports that are always prohibited without a decision. A total of 423 declarations were involved. The IMA had granted approval for export for just 97 of these declarations. This involved 1.8 kilotons. This means that the other 326 declarations involving a further 1.8 kilotons were probably exported illegally.

Exports of electronic waste

In 2004, the VROM Inspectorate Southern Region carried out an investigation into exports of electronic waste to non-OECD countries. It established that a lot of waste electrical and electronic equipment was being exported to Asia, Africa and Eastern Europe as second-hand goods. As a consequence of these results and various other reports, a national investigation is to be conducted in 2005: the Elektronica project 2005 [Electronics Project 2005].

During 2004 the **Environment Agency for England and Wales** conducted a further investigation into illegal waste shipments (*TFS Illegal Activity (TFS Green List) Waste Project, September 2004*).

The objectives of the project were:

- determine the level of imports and exports of green list wastes to and from the UK
- establish the identity of the organisations and industry sectors involved in the trade of non hazardous wastes
- establish an agreement with Her Majesty's Customs & Excise (HMCE) to share intelligence
- To determine the level of criminal activity – sub divide levels from top tier organised crime down to bottom tier, which includes ignorance e.g. on the part of SMEs.
- using the information gathered, to target enforcement of the regulations to deter further breaches of the regulations. Type of enforcement to be based on level of illegal activity
- provide guidance both internally and externally
- develop links with the industry sectors involved in the trade of green list wastes
- the training of Agency staff to monitor Green List waste Activity
- a report to DEFRA highlighting deficiencies in the current regulatory framework and recommending change
- To liaise with other UK competent authorities, if necessary, to prevent illegal activity.

Key findings from this work is listed below;

- In terms of tonnage, the scale of legitimate import and export of hazardous waste to and from the UK is relatively modest. The volume of trade in non-hazardous wastes is known to be much greater than the volume of hazardous waste trade.
- HMCE data from <http://www.uktradeinfo.com/>
- shows that in 2003 the non-notified exports of waste exceeded 10 million tonnes compared to the notified exports of 50,000 tonnes (EA provisional figures). The imports of non-notified waste were over 600,000 tonnes compared to the notified imports of 107,000 tonnes (EA provisional figures).

Exports

- An initial scoping exercise looking at the scale of the green-list trade, show that there was a large and increasing export of paper and plastic waste. Total paper exports rose from less than 8,000 tonnes in 1999 to nearly 2 million tonnes in 2003. Plastic exports are also up by 800% over the same period. The increase of these exports to India and the Far East is increasing at an even faster rate. There was a significant trade in other wastes e.g. scrap iron and steel, 7 million tonnes in 2003, but the relative high value of these wastes makes disposal or serious mismanagement less likely.
- Using HMCE data, paper exports to Asia & Africa are approximately 100,000 tonnes a month (2003 figures). Experience from port checks at Felixstowe, waste

intercepted at Rotterdam & Antwerp and anecdotal evidence, suggest that a significant proportion of this so-called paper was in reality co-mingled waste (mixed dry recyclables typically), more correctly described for TFS purposes as municipal waste (listed as hazardous). The proportion of the material exported as paper that is actually municipal waste will vary from country to country.

- Experience and anecdotal evidence, shows that currently much (but not all) of the paper exported to both Indonesia and China is in fact paper, but that a significant proportion of the material going to India (50 to 80% of 200,000 tonnes/annum) is municipal or co-mingled waste. One source (www.bilt.com) however claims China currently takes in between 300,000-500,000 tonnes/year of co-mingled waste fraudulently labelled as recovered paper from Europe alone. The Agency also have evidence of municipal waste being consigned to both Taiwan and Malaysia, but on further investigation this material was in reality destined for India. There have also been illegal exports to the Netherlands and Belgium, which have been returned to the UK.
- HMCE data shows, about 7,300 tonnes (2003) of waste plastic was exported to India. All non- PET scrap plastic exports to India are subject to “red list” controls, which requires positive agreement with the competent authority of import, and therefore nearly all of this material was illegally exported.
- In addition to the export of municipal waste, there have also been problems with the illegal export of refrigerators, TVs & computer monitors and vehicle-derived scrap, in particular to Africa. ELV & WEEE directive are likely to increase the level of these illegal exports.
- A number of recent illegal movements have involved car parts such as tyres, engine blocks being illegally exported to Belgium & the Netherlands with the wastes being returned at the movement notifier's costs. (These were discovered by regulatory inspections at the ports of Antwerp and Rotterdam).

Imports

- Most low value green-list waste coming into the UK, came from the Irish Republic. HMCE figures however will not accurately record waste that crosses the land border in Ireland before being shipped to England, Wales or Scotland.
- Earlier in the year there was extensive press coverage in Ireland regarding the export of municipal wastes with some limited press interest in the UK. Municipal exports from the UK have potential to damage the Agency's reputation.
- Illegal disposal of waste in the Northern Ireland of (municipal) waste from the Irish Republic is a major problem. There is evidence that organised criminal gangs are involved in the export of waste from the Irish Republic.

The report concludes that;

The illegal trade in so-called green-list wastes is a significant threat to both the finances and reputations of the UK Agencies. China has toughened their policy on

waste imports. The return of waste from India and the Far East is much more expensive than the original export and the Agencies could end up paying the costs for any large scale of waste. The Agencies reputations have already suffered within the paper recycling industry where we are seen as weak and under-resourced regulators.

These exports have received much more publicity in the Irish Republic where illegal exports were covered in the national TV news and press. There are indications that these issues are gaining a higher profile in the UK with a recent press release from Friends of the Earth (30/6/04 UK dumps old TVs on developing countries).

This report also tried to determine the economics, or profits to be made from, illegal traffic. Some extracts from the report are given below;

Data from www.uktradeinfo on the (declared) value of the exports of paper, show that mean value of exports to India is declared at £63/tonne (2004) compared to China £87/tonne, Indonesia £104 and EU £72/tonne. Imports from the Irish Republic have a mean value of £50/tonne compared to an EU average of £84/tonne.

Exports of waste municipal waste exported from the Irish Republic (via Rotterdam) have been estimated by the Irish Waste Industry as make a profit for the exporter of €4,000 (\$4,000) a container. A legal site in the Irish Republic would expect £2,500 (including tax) to deposit a 20 ton load of waste. Landfill costs in the UK are significantly less.

Waste	1999	2000	2001	2002	2003 (7 months)	2003
Paper (4707)	6,812	13,468	694,355	1,226,862	1,292,600	1,999,318
Plastic (3915)	48,227	81,293	86,919	109,543	123,900	195,889
Wood (4401)	101,286	172,957	122,988	102,267	203,858	335,684

Table 4.1 Trends in exports of Green List Wastes UK 1999-2003

Country	1999	2000	2001	2002	2003 (7months)
Indonesia	332	0	55,520	180,236	235,801
China	0	51	49,108	160,179	213,743
France	4,976	4,867	132,273	207,857	186,981
India	0	0	29,590	47,465	117,042
Netherlands	41,360	0	78,641	143,928	104,715
Sweden	28	176	95,569	100,040	91,393
Germany	1,237	7,394	49,908	49,174	84,841
Irish Republic	13	38	3,504	3,579	15,853
Total	6813	13469	694355	1226862	1292600

Table 4.2 Destination of paper exports between 1999 and 2003 by tonnes, UK

	2003	2004 (6 months)
Sub Saharan Africa	6,455	1,494
Ghana	?	385
Kenya	?	336
Nigeria	483	145
Tanzania	1,935	121
Dubai	?	823
Hong Kong	?	240
India	?	154
Pakistan	?	82

Table 4.3 Exports of Refrigerators & similar (including non-waste) 8418 in tonnes

Country	2003	2004 (6 months)
Sub Saharan Africa	8,564	3,550
Nigeria	6,564	2,407
Ghana	?	569
Ivory Coast	?	151
Tanzania	209	128
Asia and Oceania	1,573	718
India	-	20
Pakistan	208	94

Table 4.4 Exports of Televisions & similar (including non-waste) 8528 in tonnes.

The figures from HMCE must be treated with some significant caution. The classification of the goods for import & export are often made by the brokers and therefore maybe inaccurate. There is also evidence that brokers miss-describe waste to avoid import duties. Shipping Lines can be reluctant to ship any goods described as waste. The figures however, will be giving a useful indication of the both the scale and trends of Green List Waste Movements.

The trade in Green List Wastes is increasing sharply, in particular paper exports to Asia. Much of this paper is likely to be contaminated or unsorted recyclable wastes. There is no custom code for unsorted recyclable materials and therefore the paper codes are the ones most likely to be used.

Indonesia was a major destination for paper wastes in 2003, yet in 2000 no paper was exported. There is anecdotal evidence that much of this is over-issued newspapers, magazines, and cardboard.

The Irish Republic is now the major importer of waste paper into the UK (78,418 tonnes 2003). Imports from other countries have declined. This is probably because the paper recycling market in the UK is saturated and that paper is being imported from Ireland to avoid prohibitive landfill charges there. There is evidence that Co-mingled papers are being imported into the UK for Landfill

Plastic exports are also rising rapidly. In 2003, 7,3297 tonnes of plastic waste were exported to India. It is likely that most of this was illegal, although occasionally lower grade plastic feedstock maybe described as waste (to avoid import duty). Imports of plastic waste do not appear to be a significant problem.

The above paragraphs are just a selection of the data extrapolated from customs codes. This work is similar to that carried out both by Sweden and the Netherlands but did not go as far as 'profiling'.

The Czech Republic commenced some initial scoping work on illegal waste activities involving a number of neighbouring states. This found that illegal activity had been detected by a number of states but the work progressed no further due to collaboration on this Threat Assessment.

However this work did identify some common waste streams of concern. They involve Chapters, 12, 16, 17 and 20 of the European Waste Catalogue.

4.2 Other IMPEL TFS work

Over the past few years, several IMPEL TFS projects have been carried out which help to substantiate work carried out both within this Threat Assessment and by several Member states described above.

Notable projects include the Verification project and Sea Ports I. During the course of this Threat Assessment, IMPEL TFS have established a wider scale Sea Ports II project which hopes to report later in 2006. However initial indications from inspections at sea ports suggest large scale (and possibly increasing) illegal activity.

IMPEL TFS Verification Project Report - Extracts

This report was published in November 2004 and covered the period October 2003 – November 2004. It identified that;

“...it is found to be difficult to contact the authorities which are responsible for control and enforcement of waste shipment regulations in other EU countries, ...”.

The report goes on to state;

“Collaboration between these authorities involved is essential to enforce relevant legislation adequately and to protect the environment.”

A number of project conclusions highlight the need for collaboration between agencies and countries and targeted enforcement to protect the environment.

IMPEL TFS Sea Ports Projects (I and II)

IMPEL TFS have carried out 2 projects between members concentrating on collaborative inspections and enforcement at sea ports. Some outcomes of Sea Port I project have been referred to within this report. However a much larger Sea Port II project has been carried out during 2005. A report on this project will be published

shortly in 2006 and therefore no detailed reference to it in made in this report. However interim findings confirm many of the findings made within this threat assessment

CHAPTER FIVE:

CONCLUSIONS & RECOMMENDATIONS

5.1 CONCLUSIONS

The potential threat and harm from the illegal movement of waste between countries has been amply demonstrated in the press. These include economic harms, arising not just from the cleaning up of such waste but also from the undermining of the legitimate waste treatment and disposal industry, as well as environmental and health harms. The scale of the problem, however, remains unknown although due to this project a better understanding has been provided and means of taking investigations forward. For example few countries have carried out ‘profiling’ or national threat assessments to date. There needs to be greater advice and support offered to IMPEL members states in conducting such work. Co-ordination of such work between states may be collated to produce a picture across the EU.

There is not one, but a number of different problems each of which will require slightly different responses and preventative strategies.

First, there are the unintentional violations arising from a complex bureaucracy. These could potentially be numerous. Then there are a number of different illegal waste activities involving different types of waste, different routes and destinations, and probably different offenders since some waste streams will require different levels of skill and knowledge to deceive the regulating authorities successfully.

Further profiling research and future threat assessments should break down and analyse the problem in this way, exploring the conditions giving rise to these different problems and the opportunities being exploited.

Other key conclusions to emerge from the survey and the threat assessments are:

- There are ‘pinch points’ in the movement of both legal and illegal waste (in Belgium and the Netherlands and possibly Germany and Malta) within the EU , suggesting that this is where enforcement activity could profitably be focused to the benefit of the EU as a whole
- While some EU generated illegal waste remains within the EU, most EU countries are the origin of waste illegally shipped to developing countries.
- Different illegal waste streams involve different destinations and, probably, different methods to avoid detection. For example
 - plastic waste is exported to Asian countries (both East and West Asia)
 - refrigerators and CFC products go to Africa, particularly Western Africa
 - end of life vehicles go to Africa, and also to Eastern Europe
 - electronic and cable waste is exported to East Asia

- The drivers of the problem are a combination of high costs of treatment and recycling within the EU and inadequate enforcement
- Lack of training for enforcement staff, and differences in legislation interpretation, makes general enforcement of EU waste regulations difficult.
- It is also possible that those in industry who are involved in international waste trade are implicated in illegal activity because of lack of awareness and understanding on the regulatory frameworks
- New EU member states are potentially more vulnerable themselves as destinations for illegal waste and also provide weak spots in the EU border for exports from and imports into the EU zone. e.g. Malta

5.2 RECOMMENDATIONS

Getting a better picture of the scale of the problem

1. A substantial project needs to be undertaken to research in more depth the scale of illegal trans-frontier shipment of waste. Such a study should be tightly focused, targeting one waste stream for more detailed study. Such a project might develop a methodology for assessing the scale and nature of these particular problems, for use by member states in their national threat assessments. In this way, the project might be seen as a pilot project, to begin the process of a more co-ordinated threat assessment across the EU. IMPEL Sea Ports has been valuable in identifying some specific issues along these lines

Developing an evidence-led response

The economic and market conditions that drive the problem should be researched and understood better. Some countries are willing to pay over the market price for some waste streams thus threatening domestic/EU recycling capability and initiatives. The relative economic benefits to offenders need to be understood better in order to investigate possible fiscal tools especially as regulatory drivers will be acting to further encourage exports. Such work should aim to provide a more holistic analysis of the costs and benefits of the illegal trade in waste, to better identify cost-effective interventions. For example, while reducing the cost of treatment might appear to be too costly a proposal to particular states, when compared with the costs of cleaning up or repatriating waste in other parts of the EU, it might produce a net gain when looked at from an EU perspective.

- a. The methods used by offenders to trade illegally in waste should be researched, to identify the ways in which they conceal their activity, and the opportunities in the regulatory, market and enforcement environment they exploit which might be closed down. The relationship between waste producers, shippers and receivers of waste should also be examined, for ideas on how such relationships might be disrupted.

- b. Taking recommendations 1-3 a step further, a pilot study, with full EU involvement, might be mounted with the aim of developing an evidence-led strategy for reducing a particular problem. Such a project would involve operational officers working collaboratively with a research team who would be addressing the points listed above, in order to generate and test novel ideas to improve the detection of offenders and close down opportunities for crime. The project, if successful, would establish a framework for EU states working together.

Threat Assessment

- c. A methodology for member states to undertake threat assessments should be developed. The aim should be to support member states in producing more robust threat assessments, which not only meet their own needs, but can also be shared with other member states as the basis for collaborative activity and building from the bottom up a picture of the problem pan EU. The research work suggested above would help develop and pilot such methodologies. Such threat assessments should include an attempt to quantify the harm caused by illegal exports of waste. The European Environment Agency may be in a good position to oversee the conduct of this type of work by member states, in order to assure it is being carried out correctly.
- d. IMPEL-TFS Network consider undertaking a shorter term approach of waste profiling in order to target collaborative enforcement effort more effectively. To agree priority waste streams, some common understanding of interpretation and classification issues for these wastes and a common response to illegal traffic thus detected.

Enforcement support

- e. Examine problems in how legislation is interpreted, including problems with definitions of terms – such as ‘waste’. There is a need for harmonised interpretations between Member states e.g. recent Dutch/UK experience, etc.
- f. Improve all law enforcement and Criminal Justice System agencies’ understanding of the importance of robust enforcement and sanctioning, from environmental agency staff to prosecutors and judges.
- g. Develop international minimum training standards for all enforcement staff, so that they understand what is illegal and what is not, what their personal powers are, and what the maximum penalties are for breaking the law. Training strategies should include raising awareness of the waste trade industry with aim of reducing unintentional violations. Such training, or parts of it, might be conducted jointly with both enforcement agencies and waste industry personnel.
- h. Investigate the cost and benefits of an EU wide database in waste transportation - both legal and illegal - would help track shipments and flag offenders for all EU enforcement agencies.

- i. Develop a forum where ‘Good Practice’ in targeting and apprehending waste offenders as well as ‘Threat Assessments’ can be shared between Member States.
- j. Develop a better understanding of the different polices and practices within EU Member States, and the different ways in which enforcement and regulation is organised. Further research into the relative merits of these differences should be considered.
- j. All Member States should have a single point of contact on TFS issues so that intelligence can be distributed effectively and that data can be collected. These national focal points would have similar roles and responsibilities within each country. This would facilitate more effective follow up work

Working together better

- k. One of the key issues to emerge from this work has been the need for collaboration between regulatory bodies within Member States i.e. Customs and Environmental regulators. Where collaboration exists there appear to be advantages in terms of data and intelligence sharing.
- l. Use the experiences from the better performing member states to help those that are under-performing. For example, having short-term ‘apprenticeship’ style placements in well performing states for those in other states who need more experience.
- m. The newer Member States need to be support in the illegal trans-frontier shipment of waste both in the physical task of controlling imports and exports, as well as on the administrative side.
- n. Important that the whole of the EU takes responsibility for it’s borders, not just the border states, who tend to be the newer and less experienced Member States.
- o. Develop better procedures for and reduce the barriers to intelligence exchange between member states. As part of this there needs to be some kind of understanding as to what the illegal waste threats are in other Member States.

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- Various: State of the Environment reports from IMPEL Member countries and internet published data from those countries (where available)

DATABASES AND USEFUL RESOURCES

DATABASES

- Secretariat of the Basel Convention
<http://www.basel.int/natreporting/compilations.html>
<http://www.basel.int/natreporting/2001/compII/mastables/mastable.pdf#table4no t>
- European Topic Centre on Resource and Waste Management
<http://waste.eionet.eu.int/>

USEFUL RESOURCES

- IMPEL
<http://www.europa.eu.int/comm/environment/impel/>
- Competent Authorities
<http://www.ovam.be/jahia/Jahia/pid/5> Belgium
<http://www.cizp.cz/index.aspx?l=2> Czech Republic
<http://www.mst.dk/homepage/> Denmark
<http://www.environment-agency.gov.uk/> England and Wales
<http://www.bmu.de/english/aktuell/4152.php> Germany
<http://www.lielrigasrvp.gov.lv/> Latvia
<http://www.mepa.org.mt/> Malta
<http://www.vrom.nl/international/> Netherlands
<http://www.ehsni.gov.uk/> Northern Ireland
http://www.portaldocidadao.pt/PORTAL/entidades/MAOT/IGA/pt/ORG_inspeccao-geral+do+ambiente.htm Portugal
<http://www.epa.ie/> Republic of Ireland
<http://www.sepa.org.uk/> Scotland
<http://www.internat.environ.se/index.php3> Sweden
- Other sources including trade bodies

GLOSSARY

Border State	A Member State which has part of its territorial borders with one or more non-EU state/s.
CA	Competent Authority
CBS	Customs and Statistics (Netherlands)
CFC	Chlorofluorocarbon
Ecomafia	Organised Italian environmental crime groups
EIA	Environmental Investigation Agency
EU	European Union
Free response	A response to an open ended question, which can be answered in any way and is free of structure.
HMRC	Her Majesty's Revenue and Customs (UK)
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law
MAP	Mediterranean Action Plan
Member State (MS)	Country which belongs to the European Union
Modus Operandi (MO)	Method of Operation
MoU	Memorandum of Understanding.
NCIS	National Criminal Intelligence Service (UK)
ODS	Ozone Depleting Substance
OECD	Organisation for Economic Co-operation and Development
PoCA	Proceeds of Crime Act (UK)
TFS	Trans-Frontier Shipment
VROM	Ministry of Spatial Planning, Housing and the Environment (Netherlands)
WEEE	Waste Electronic and Electrical Equipment

Appendix A

A Sample of Recent Waste Related Headlines

European regulators agree increased efforts are needed to combat illegal waste industry

Nearly half of all waste exported from EU countries could be illegal, a new report reveals. The statistics, which were released as part the EU's investigation of 18 seaports, showed that 47% of cargo inspected had no right to be exported. Amongst these were wrecked cars from Ireland bound for Nigeria, PVC from Portugal en route to the Philippines and plastic from the UK on its way to Vietnam.

TOP CRIME GANG TRIO IN THE DOCK

Belfast Telegraph, 15 April 2005

SOMALI LAWMAKERS APPEAL FOR GLOBAL ASSISTANCE OVER TOXIC WASTES

Xinhua General News Service, 5 March 2005

SOMALIA'S SECRET DUMPS OF TOXIC WASTE WASHED ASHORE BY TSUNAMI

The Times, 4 March 2005

MADE IN TAIWAN. BURIED IN CHINA.

Technology Review, 24 February 2005

'SOPRANO-STYLE CRIMINALS' LURED BY HUGE PROFITS IN ILLEGAL WASTE

Irish Independent, 31 January 2005

ITALY ILLEGAL WASTE TRAFFIC FOR 27 BLN EURO 1994-2003

ANSA English Corporate Service, 25 January 2005

E-WASTE ILLEGALLY EXPORTED TO ASIAN COUNTRIES: STUDY

The Hindu, 18 December 2004

POLICE IN ATTEMPT TO SMASH CRIME GANG

Irish News, 17 December 2004

POLICE IN CRACKDOWN ON MAJOR ULSTER GANG

Press Association, 16 December 2004

COURTS CONVICT RECYCLING FIRMS FOR ILLEGAL WASTE PRACTISES

Irish Independent, 10 December 2004

IRISH DUMP RUBBISH IN N. WALES TO AVOID TAX; CRACKDOWN LAUNCHED ON ILLEGAL WASTE IMPORTS

Daily Post, 27 November 2004

EC CRITICISES IRELAND OVER DUMPING IN NORTH

Sunday Business Post, 21 November 2004

INDIA BECOMING A DUMPING GROUND FOR EUROPEAN E-WASTES

The Press Trust of India, 26 September 2004

POISONOUS DETRUS OF THE ELECTRONIC REVOLUTION

The Guardian, 21 September 2004

THE UK'S NEW RUBBISH DUMP: CHINA

The Guardian, 20 September 2004

EU RULES COULD BENEFIT 'GARBAGE MAFIA'

The Times, 9 August 2004

DUMPED COMPUTERS AND TV SETS SOLD ILLEGALLY TO DEVELOPING WORLD: ENVIRONMENT AGENCY TO CRACK DOWN ON TOTTERS' TRADE

The Guardian, 30 June 2004

DUBLIN TASKFORCE TO TACKLE ILLEGAL WASTE ACTIVITY

The Irish Times, 10 June 2004

MAFIA GRIP ON WASTE BUSINESS CREATES STINK IN SOUTHERN ITALY

Financial Times, 22 March 2004

SEIZED WASTE ALLOWED TO CONTINUE INDIA VOYAGE

Irish Independent, 22 March 2004

BELGIANS TIPPED OFF ON ILLEGAL SHIP WASTE

Irish Independent, 11 March 2004

BELGIANS TO SHIP BACK 1,000 TONNES OF ILLEGAL WASTE TO IRELAND

The Irish Times, 28 February 2004

ILLEGAL WASTE ABROAD TRACED BACK TO NINE LOCAL COUNCILS

Irish Independent, 11 February 2004

GROWING CONCERN OVER INDIA'S E-WASTE

BBC News, 12 December 2003

CONVOYS OF FILTH HEAD FOR BORDER

Sunday Mirror, 3 August 2003

U.N. MEET TO DISCUSS DISPOSAL OF E-WASTES

The Hindu, 9 December 2002

THE E WASTE LAND

The Guardian, 30 November 2002

CHINA TO CRACKDOWN ON SMUGGLING OF E-TRASH, REPORT SAYS

Associated Press Worldstream, 30 May 2002

COURT ORDER VIOLATED SAY GREENPEACE

The Hindu, 12 September 2000

RECENT (2004 – 05) NEWS HEADLINES from CHINEESE PRESS;

“Hundreds of waste monitors were found flushed onto the rock shore” (A waste smuggler in Hong Kong threw all waste monitors into the seas when being traced by customs)

“Influx of overseas electronic waste constituting a serious threat to human health – Serious pollution was caused by dismantling activities of e-waste in New Territories”

“Televisions with “dreadful” CRTs were being sold in Guaugzhou”

“Vessel master convicted for illegally exporting e-waste”

“Guiyu becomes global dumping site of e-waste”

“Shanghai customs rejected 50 tons of e-waste from overseas”

Appendix B

IMPEL Threat Assessment Questionnaire

TFS – Waste Shipments Regulation, Council Regulation 259/93

Name of Interviewee: Name of Organisation: Position in organisation: Country:
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Section 1 Aim: Establish the scale of legal (legitimate) traffic in waste through, into and out of Europe

In this section we are looking to establish the extent of knowledge in each country and ask for any data you have over the last 3 years (2000, 2001, 2002 and 2003 if available). It is acknowledged that you will already provide information to the European Commission on legitimate shipments of waste but would you please be able to summarise any data you have on legitimate trade here so that we may make direct comparison.

1. What is the estimated value, in monetary terms of legitimate shipments of waste
 - a) exported from your country
 - b) imported to your country

[If it is not possible to estimate a monetary figure please state amount in tonnes/year for latest year you have a figure]

2. Which countries¹ in Europe is most legitimate trade with for
 - a) exports from your country
 - b) imports into your country

(¹ State the 2 or 3 most significant countries)

3. What are the main wastes involved in this legitimate trade (2 or 3 main wastes by EWC code)
 - a) wastes exported
 - b) wastes imported

Section 2 Aim: Establish the scale of illegal (illegitimate) traffic in waste through, into and out of Europe

In this section we are looking to establish the extent of knowledge in each country on illegal activity and ask for any data you have over the last 3 years (2000, 2001, 2002 and 2003 if available).

Number of Violations¹	
Number of individuals or groups involved in these violations²	
Can you provide any details of level of sentences/fines/other sanctions or penalties imposed by courts following successful prosecution of illegal TFS activity	
Monetary value involved in these violations³. Please explain your figure (Euro)	
Country of waste⁴ <ul style="list-style-type: none"> - Production - Destination - Transit 	
What are the favoured routes (land, waterway, sea) for illegal waste shipments crossing national frontiers	
What regulatory bodies are involved in taking enforcement action	
Comment please, on what failures/constraints you have experienced in taking enforcement action on illegal activities discovered. For example, were failures due to weaknesses in legislation, powers of enforcement agencies, lack of facilities, expertise, etc.	
If you cannot provide data in the above columns can you give an indication on trends in illegal waste management. For example do you believe that the number of illegal shipments crossing your national boundaries is increasing or decreasing (over the past 3 years)	
Add any further comments you may add here please	

¹ The data may be recorded as numbers of shipments, numbers of vehicles, quantities of waste involved, or even just the number of times you have investigated illegal activity. Please provide the data in the format, which they are kept but specify the format in the table below.

² We are looking to identify any individuals or groups who may be operating illegally within several countries so please indicate here any persons in common.

³ You may express the monetary value (in Euro) in the way you wish but please give an explanation. For example in how much it would cost to recover, treat or dispose of the waste in your own country, include how much tax will have been saved also.

⁴ Here we are looking for countries through which, illegal waste shipments commonly pass, or are destined for, or where waste is commonly produced, and shipped illegally and to determine any trends in this data.

Section 3 Aim: To determine the Profile of those involved in illegal waste activities

Here we would like to gain some knowledge of the type of persons involved in illegal TFS activity and how they operate.

<p>How is illegal waste transported and distributed within your countries borders (for example road, rail, waterway, etc.)</p>	
<p>How do these groups or persons promote or advertise their existence (that is, how do others such as waste producers find out about these illegal services (for example it could be via the internet, local press, personal contact, mobile phone calling, etc.)</p>	
<p>Are there any local or regional ‘hotspots’ for illegal activity. For example near to frontiers, near to convenient land crossings or major ports or where there may be a lack of suitable treatment/disposal capacity. There may be a long history in particular areas of illegal activity or particular persons.</p>	
<p>How are illegal waste deceptions organised. For example, not notified, not declared, described wrongly, use of false documentation, disguised loads hidden within other commodities, etc.</p>	
<p>Are waste activities linked with any</p>	

other illegal activity For example persons involved.	
Any other comment you may wish to make	

Section 4 Aim: To determine description of types of waste involved

In this section we are trying to identify common waste types and/or industry sectors which may be involved in illegal waste activity and quantities of waste involved. It may not be possible to list all waste types but please list those which you think are most significant and where possible the EWC code for these wastes. Please give some specific examples.

EXAMPLE	1	2	3	4
Source of waste (activity or industry sector)				
Types of waste (using EWC code if possible)				
Quantities of waste involved (if possible in tonnes)				
From whom is waste generally sourced for illegal shipments (that is mostly direct from waste producers, dealers, brokers, or others)				
Destination for each of these waste types				
Any comments you wish to make				

Section 5 Aim: To determine what data is kept and what type of data.

Here we wish to determine how records of the known level of illegal waste movements are kept and what enforcement action is taken. The following questions investigate the data, which you may keep

- Has a common database been used to provide the information given above.
Yes/No

- Would a common database be useful in your country Yes/No
- Would a common database be useful across the EU Yes/No
- Have you been asked to provide data on illegal activity in any other EU project
Yes/No
- Are records of the outcomes of enforcement action kept Yes/No
- Have you made any assessment of threat of illegal waste activity in your country
Yes/No

[Can you please provide in the space below, any information on how an assessment of threats were made]

Section 6 Aim: To determine what collaborations there are between regulatory/enforcement bodies.

Here we wish to investigate what regulatory bodies take enforcement action or have powers to investigate illegal waste activity in your country and how intelligence may be communicated between such bodies within each country and between countries.

- Who is the Competent Authority (CA) responsible for enforcing 259/93?
- Are there any formal arrangements between the CA and other regulatory bodies (for example, police, customs and so on) Yes/No
- Do regulatory bodies collaborate by sharing intelligence on illegal waste activity
Yes/No
- Are there any obstacles to sharing this information [between bodies within each country and between different countries] Yes/No

Section 7 Aim: Here we wish to identify the techniques, equipment and strategies used by Competent Authorities or other regulatory bodies, to detect illegal waste movements.

- Have any national policy or guidelines been published on detecting illegal waste shipment activities. Yes/No

- If Yes can you supply any of these to this project (please enclose). Yes/No
- Are there any national action plans/strategies such as joint inspections, or formal collaboration between regulatory/enforcement bodies. Yes/No
- Is training provided to CA or other bodies in detecting and regulating illegal traffic. Yes/No
- Do you believe that some consistent training should be developed within the EU. Yes/No
- Do you carry out highway checks of vehicles. Yes/No
- If yes, are these checks random or intelligence based Yes/No
- If intelligence based can you provide here, any examples of where this type of intelligence is provided

- Also if Yes above, then do you consider this to be an important technique in identifying illegal waste shipments. Yes/No
- For those countries with marine coastline do you carry out port checks. Yes/No
- For those countries with land borders do you collaborate on transport checks with bodies from neighbouring countries. Yes/No
- Are checks made in collaboration with other Agency's Yes/No
- Is your country/regulatory body part of a regional/international group or project investigating illegal traffic (other than with IMPEL). Yes/No
- Have you participated in any other IMPEL Projects. Yes/No

- If Yes could you list which ones please.

Section 8 Aim: Here we wish to identify any common factors that motivate illegal waste trafficking specific to your jurisdiction/territory

- Are there any estimates of economic value in this illegal trade. Yes/No
- If Yes what do you estimate the annual economic value to be (Euro)

- Would you please rank the following factors in order of importance in regard to encouraging illegal activity (1 the greatest factor, 6 the least)

Lack of facilities within your country

Cost of treatment or disposal options in your country

International or National legislation

The amount of bureaucracy in EU/your country

Lack of enforcement action

Level of penalty imposed by courts

Please list any other factors, which you consider may influence levels of illegal waste shipments from or to your country.

Section 9 Aim: Here we wish to explore links with other forms of crime: fraud, drugs smuggling, money laundering, CFCs, wildlife and to understand the behaviour and profile of those involved in illegal TFS waste activities.

- Are any individuals/groups involved known to be involved in other illegal activity.
Yes/No
- Can you name any of these groups here please? If you feel that you cannot provide any specific names would you please indicate if you hold centralised details of these persons.
- For how many groups or individuals do you hold such information on
- Can you list what other types of activity these people or involved in (for example smuggling, people trafficking, drugs, wildlife, etc.)
- Do you provide intelligence to other regulatory bodies on the illegal waste activities of these groups.
Yes/No
- Does the avoidance of tax or other fraud lead to illegal waste shipment activity.
Yes/No

- Are those involved in illegal waste activity doing so for money laundering purposes. Yes/No
- Do groups or individuals involved in illegal TFS waste activity operate internationally (within EU, or wider globally). Yes/No

Section 10 Aim: Lastly, here we want to investigate how intelligence is collated and correlated with national and international police organisations (Interpol) – for example “ecomessages”

- Is your organisation aware of Interpol’s ‘ecomessages’. Yes/No
- Which body in your country is responsible for sending ecomessages
- Have your organisation/agency ever contacted Europol. Yes/No
- If Yes could you indicate what the reason(s) were.
- Are there any national initiatives, which might in the near future which might influence the level of illegal waste shipment activity. Yes/No
- If Yes please explain below any national initiatives, which may lead to believe this. For example governmental reorganisation, policy initiatives, taxation changes, enforcement campaigns, and so on.

Finally - COMMENTS

We would like to receive any comments you have regarding this questionnaire, the Threat Assessment project or any other issue regarding illegal activities in the regulation of 259/93. Please attach any further information you wish.

APPENDIX C

'Pick the low-hanging fruit first'

Introduction

Customs and Statistics Netherlands (CBS) have a reasonably good understanding of the export of goods. These export streams include waste. It would, of course, be odd if businesses were to export waste to prohibited destinations, duly declare this to Customs and then simply be allowed to go on their way. The VROM Inspectorate therefore collaborates with Customs to select potential cases of illegal trafficking from the information on the customs declarations. However, to date we have not had a complete picture of transfrontier waste and goods streams. We have therefore not been able to establish the level of compliance and there has been no proper basis for setting enforcement priorities. It goes without saying that we could use the available information better. The VROM Inspectorate has therefore launched a Prioritisation and Monitoring project – PriMo - in collaboration with Customs and the police.

The data available to date has come from the International Waste Notification Bureau² (among other things, this relates to exports of waste for which exporters have submitted notifications) and from enforcement actions by the police, the VROM Inspectorate and Customs. To date, the VROM Inspectorate has only received information from Customs on incidents for which inspection actions have been carried out. The results of PriMo have provided the VROM Inspectorate with a better understanding of export streams, enabling us to target enforcement at priority waste streams and focus on businesses that may be involved in illegal trafficking (illegal export).

Method

The information from Customs and the CBS overlaps to a large extent. Customs only has information based on declarations submitted in the Netherlands for exports to destinations outside the EU. The CBS receives the same information from Customs, but also has information on exports to countries within the EU, with a value of more than €225,000 per country per year. Customs can supply information in detail - by company or by declaration. The CBS cannot.

The method used is to select wastes declared for export in the Netherlands from Customs' systems and from information from the CBS.

Goods and waste

This does require some creative thinking, however, as naturally not all waste is coded in a way that allows it to be identified as such. Both the CBS and Customs use an international nomenclature of goods for classifying imports and exports. This list

² From 2005, the work of the International Waste Notification Bureau (IMA) will fall under the Execution of Waste Management department at SenterNovem in The Hague.

Customs and the CBS hold information on the export of goods - goods which could be wastes. We have therefore subdivided the goods codes into three groups:

1. standard products: not waste, so the EU Waste Shipment Regulation does not apply.
2. goods codes which are for products but which may be used for waste. We have called these codes 'escape codes'.
3. goods codes whose description indicates waste, such as 'waste, residue, remainder, used, chippings, old, demolition', etc.

The codes under 2 and 3 are on our start code list. The start code list forms the first selection criterion for calling up Customs and CBS information.

contains codes and descriptions of all material goods. Unfortunately it is not connected in any way with the European List of Wastes (EURLW), for example, which is used by the IMA. Fortunately it was discovered that some of the staff at the VROM Inspectorate and Customs have a lot of practical knowledge of goods codes that are often used for declarations of imports and exports of wastes. This knowledge has been structurally laid down in an easy-to-use list called the *start code list*.

Countries and waste

Under the EU Waste Shipment Regulation, exports of wastes are in many cases subject to approval by the Minister of VROM. Only green list wastes may be exported without approval in many cases. Each country of destination has various procedures for this, partly depending on the type of waste involved. These procedures are interpreted manually and translated into a computer-readable key. Thus we have produced a complete *country list*, which can be linked to current import and export data from the CBS and Customs and which also contains information on wastes that are or are not permitted in each country.

With one click of the button

More than 3 million declarations³ for exports from the Netherlands to countries outside the EU are submitted every year. By selecting suspected wastes from the declarations using the *start code list* and then checking the 170,000-plus selected *declarations* against the electronic *country list*, we can identify all declarations of wastes that may not be exported or may only be exported with permission in one go. In order to achieve this, a calculation function has been written which automatically checks the declared 'goods' against the country list.

Finally we checked which declarations had approved notifications of which the IMA was aware. This left us with declarations, which may indicate *illegal trafficking*. These indications form the basis for setting enforcement priorities.

Verification required

An indication does not automatically mean that illegal trafficking is actually taking place. Verification is always required in order to determine whether the substances concerned are in fact waste, since an incorrect goods code may have been used on the declaration or because some goods codes may have been used both for products and for wastes.

Results

The method described above came about 'on the job' and has therefore also been tested in practice. Three cases were worked on in more detail, the results of which are

³ Each declaration may contain more than one type of goods. For the sake of convenience, when we talk about numbers of declarations in this text, we mean numbers of types of goods declared (consignments of goods).

given below: exports to non-OECD countries (developing countries), exports to the countries that acceded to the EU on 1 May 2004, and exports of electronic waste.

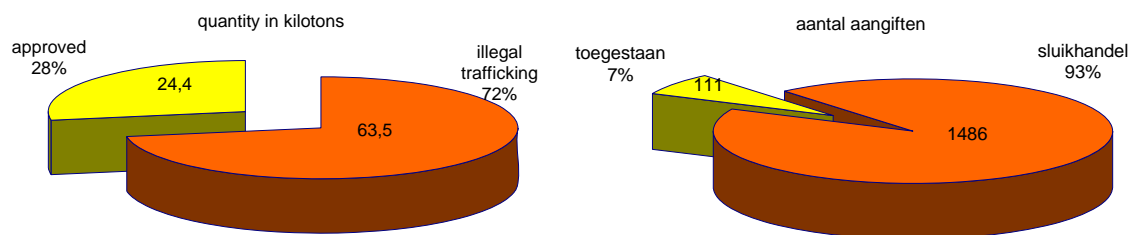
Exports to non-OECD countries

Exports to non-OECD countries are a high priority for the VROM Inspectorate. This is because non-OECD countries are developing countries where there is a relatively high risk of wastes being dumped without any environmental protection measures or processed in a manner that is harmful to the environment. In 2003, almost 87.9 kilotons of 'waste' was sent to non-OECD countries - exports that are always prohibited without a decision. A total of 1,597 declarations were involved. The IMA granted approval for export for 111 declarations of wastes submitted to Customs, and the IMA did in fact receive notification that these exports actually took place. This involved 24.4 kilotons.

Extensive illegal trafficking exposed

This provides us with the following picture of compliance with the EU Waste Shipment Regulation for waste streams to non-OECD countries which are subject to a procedure under the EU Waste Shipment Regulation or which are prohibited from being exported under the EU Waste Shipment Regulation:

- 72% of the quantity exported in 2003 potentially constitutes illegal trafficking;
- looking at numbers of declarations instead of quantities, 93% of exports potentially constitutes illegal trafficking.



Exports to non-OECD countries in 2003, quantities calculated on the basis of CBS data, number of declarations on the basis of Customs data. Only goods codes designated as 'waste codes'.

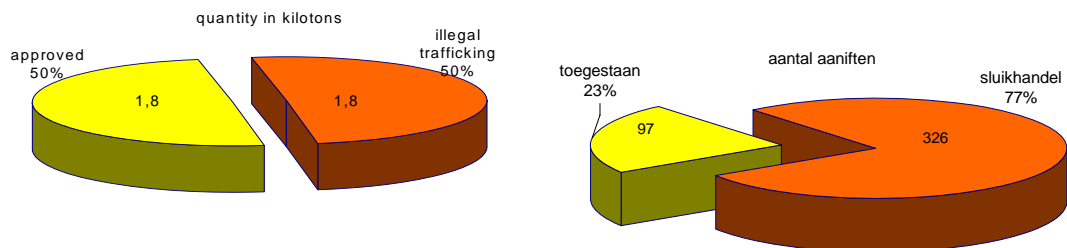
Approximately half of the quantity of waste that could potentially constitute illegal trafficking consisted of ashes and slag, which were exported to 44 destinations. In addition, a large amount of fur, leather and textiles, which should possibly be designated as 'waste' was exported, mainly to India. Large volumes of plastic, paper and cardboard were also exported. Of all the countries of destination, India received 28% of the volume that could potentially constitute illegal trafficking, with the United Arab Emirates (9%) in second place, followed by Singapore (8%). In general, indications of illegal trafficking to all parts of the world were found.

Exports to accession countries

On 1 May 2004, ten countries acceded to the European Union. Since the accession date, exports to these countries have no longer required a customs declaration. However, a transitional arrangement under the EU Waste Shipment Regulation for the

export of wastes will still apply for a number of years in five of these countries, which means that many wastes are still subject to notification. Up to the date of accession, it was possible to use customs information to obtain an insight into possible illegal trafficking to these countries.

In 2003, almost 3.5 kilotons of 'waste' was exported to accession countries - exports that are always prohibited without a decision. A total of 423 declarations were involved. The IMA had granted approval for export for just 97 of these declarations. This involved 1.8 kilotons. This means that the other 326 declarations involving a further 1.8 kilotons were probably exported illegally. The results can be seen in the following diagram:



Exports to accession countries in 2003, quantities calculated on the basis of CBS data, number of declarations on the basis of Customs data. Only goods codes designated as 'waste codes'.

Exports of electronic waste

In 2004, the VROM Inspectorate Southern Region carried out an investigation into exports of electronic waste to non-OECD countries. It established that a lot of waste electrical and electronic equipment was being exported to Asia, Africa and Eastern Europe as second-hand goods. As a consequence of these results and various other reports, a national investigation is to be conducted in 2005: the Elektronica project 2005 [Electronics Project 2005].

Additional selection criteria required

We therefore examined separately whether the new method would bring useful information to light for the national investigation in 2005. For this purpose 22,062 declarations of exports to non-OECD countries from Customs' 2003 declaration file were analysed. Waste equipment is often shipped as second-hand goods. It is only waste if it is defective. It is therefore not possible to localise the waste purely on the basis of the goods code. The following additional criteria were therefore used to narrow down the selection:

- businesses that had been involved in illegal trafficking before;
- countries of destination to which illegal electronic waste had been shipped in the past;
- additional goods descriptions such as 'defective';
- low values of the consignments exported.

The results are summarised here.

Large quantities are exported under goods codes for refrigerators, televisions and radios. Many of these declarations are comparable with cases of illegal trafficking that have been discovered in the past. This mainly involves small import and export businesses, which export second-hand equipment mainly to Africa and Eastern

Europe. A huge amount of ICT equipment is exported - about 11,000 declarations. Much of this comes from producers of ICT equipment and computer components. However, it is more difficult to establish whether the goods from these declarations are waste. A number of businesses, which have been involved in illegal trafficking in the past, have exported similar goods quite frequently. A number of export streams and exporters that are already known about are now also coming to the fore in their entirety.

Recommendation for the Electronics project We strongly recommend that the businesses identified in this analysis be subjected to an inspection in the context of the Electronics project 2005.

Chance of interception and inspection in respect of non-OECD destinations

As we now have a reasonable picture of exports of wastes to non-OECD countries, we can make a realistic estimate of the chance of waste shipments to these destinations being inspected by the VROM Inspectorate, the police or Customs. Furthermore, we can also estimate the chance of someone involved in illegal trafficking actually being booked.

Conclusions and recommendations

It is possible to select waste streams from the goods export declarations and to check these waste streams against the EU Waste Shipment Regulation. This will create a reasonably complete picture, which will enable the enforcement manpower available to be deployed in a targeted manner. Without this targeted deployment, the chance of businesses involved in illegal trafficking being caught is particularly small. With this new method, enforcement can be tailored and the chance of interception is significantly increased whilst the enforcement effort remains the same.

We therefore strongly recommend that the approach developed in this project be made a structural part of the VROM Inspectorate's working methods and thus that priority be given to the enforcement of these high-risk export streams on the basis of this annual monitoring. We recommend setting up a small team to undertake the monitoring and prioritisation developed in this context on an annual basis, in accordance with the staged plan set up for this purpose.

We also recommend that the existing co-operation between the VROM Inspectorate and Customs be continued, and that Customs should systematically select those declarations, which may involve illegal trafficking using so-called selection profiles. Customs can also refine the selection profiles using insight that will be obtained from the annual monitoring and prioritisation.

Increasing the chance of interception is not the objective; our aim is to achieve proper compliance with the EU Waste Shipment Regulation. An appropriate enforcement approach will be developed in line with the business group and the nature of the violation. This could be selection profiles by Customs, targeted transport inspections by the police, administrative checks by the VROM Inspectorate, summoning a particular target group or providing information.

APPENDIX D

Extract from *Preliminary study on criminal activities on the waste disposal market* due to

- *the enlargement of the EU and*
- *the German law on prohibition of dumping certain wastes in landfills*

4 Summarised results of expert interviews

Chapter two, "Expert Interviews" contained a comprehensive overview of the statements made by experts. This chapter will give the reader an unbiased overview of the essential results of the expert interviews.

The EU's enlargement to the East and the German waste disposal market

In 2003, the DPU prognosticated a suction effect generating a wave of waste disposal activities flowing to the new member states. This wave would start, at the latest, after the closing of old disposal sites in Germany on 1 June 2005. In particular, this effect is expected in relation to waste generated by the producing sector.

All experts interviewed share the view that the suction effect exists. The situation is compared to the one existing after East Germany's political turnabout when there was a suction effect generating a wave of waste disposal towards the new German states.

The wave will relate not only to waste from Germany but also from other Western EU member states. Therefore, Germany will increasingly become a transit country for waste transports. Moreover, it is feared that the number of illegal transports will rise as well. The experts share the view that the predicted suction effect can be curbed by stringent law enforcement both at home and abroad.

As to capacity bottlenecks in relation to waste disposal in Germany as of 1 June 2005, which are also predicted by the DPU, the opinions of the experts diverge.

Some experts do not expect waste disposal bottlenecks in Germany. Some of the reasons they give are possible exceptional rules for disposal site standards as well as additional capacities for waste incineration in industrial furnaces. They also point out that there are - at least at a regional level - surplus capacities.

Other experts, though, see significant bottlenecks regarding commercial wastes that are similar to household waste. The capacities available are sufficient for waste from private households only. The amount of commercial waste burned in local incinerators is thus reduced. The costs for waste disposal will rise significantly in the future.

In view of cross-border transports of waste, bogus recycling practices are considered a problem that exists throughout the EU. In Germany, bogus recycling takes place particularly in transfer stations and waste sorting facilities that sort out only small waste fractions for actual recycling. Following re-declaration, the whereabouts of a major part of the wastes can no longer be checked as there are practically no control procedures prescribed in relation to recyclable waste. Within the EU, recyclable wastes are to a large extent subject to the rules applying to the free movement of goods.

It is pointed out that the Western EU member states fight bogus recycling only hesitantly. As to Germany, the experts criticise those local authorities that admit allegedly recycled waste from other regions, or special wastes, to be stored at their disposal sites. For political reasons, these local authorities are not interested in criminal prosecution.

In the case of bogus recycling, it should also be ascertained whether such activities constitute fraud to the detriment of those generators of waste who have paid for high-quality waste disposal.

In connection with the suction effect, the subject of differing waste disposal standards in the enlarged EU including the ensuing economic and ecological problems is addressed as well. The existing problem of differing waste disposal standards in the Western EU member states has been aggravated through the EU's enlargement to the East. In the new member states, wastes are disposed of exclusively at unsafe old disposal sites. This corresponds to the German disposal standards that were in force 20 years ago. Extensive waste imports into the new member states aggravate the problem of disposal bottlenecks. Presumably, the EU will not take over the high German environmental standards. On the contrary - in the long run, the differing standards in the EU will lead to lower standards in Germany. It is expected that wastes will increasingly be transported to those EU member states that have low and inexpensive standards and that the opportunities for illegal practices will increase as well.

Another problem that will ensue from the suction effect will be increased traffic. As to the influence of the toll demanded for lorry traffic, the opinions diverge.

Demanding toll could result in transport being shifted to railway and ship routes, particularly because in Germany no specific authority has been explicitly made responsible for checking railway transport, which provokes illegal practices.

The main reasons for cross-border waste transports are cost-related aspects. Competitive advantages of the new member states, i.e. low costs for wages, transport and disposal, aggravate the suction effect (economic aspects beat ecological considerations). Waste transports are mainly carried out under the provisions applying to recycling so-called "green-list", i.e. harmless wastes.

The experts also point out the danger of illegal follow-up exports to non-EU states farther to the East, in particular in the case of hazardous wastes.

In connection with the suction effect, there is, as far as the national economy is concerned, a danger that German facilities will cease to be competitive in the future.

All in all, the experts predict a confusingly complex market with diffuse market activities.

The German privatisation and deregulation policy

Tendencies towards privatisation in the waste disposal market relate primarily to the tasks of public waste disposal. It is hoped that private companies will be in a position to operate more profitably.

Those who speak in favour of privatisation see no particular risks, provided that transparency, competition and sound government controls are ensured. In the long run, public facilities for waste disposal in Germany have no sufficient foundation under EU law.

Those who are against privatisation particularly point to the risk that the government may lose control and to the risk of monopolisation. Especially the PPP models are criticised to be the an ideal basis for corruption. The organisational forms favoured are either those that are fully subject to municipal control or those in which municipal control is ensured by means of blocking minorities. The administration of waste disposal (disposal of non-recyclable waste) is a matter for the public sector. All in all, the future of dualism, i.e. the system combining both public and private waste disposers, is seen differently.

For some years now - in the course of the discussion about deregulation - there have been divergent opinions on the function of quasi-governmental special waste disposers that exist in ten of the German states. On the one hand, it is

advocated that quasi-governmental institutions, including the obligations relating to tender, should be abolished. It is feared that the said obligations will lead to a concentration on certain facilities which will have an influence on disposal costs. In this case, the economic interests of the companies associated with the quasi-governmental institutions have priority. Also, the supporters of this view say that European law does not provide a legal basis for the existence of quasi-governmental special-waste disposers. Monitoring should be carried out only by regional administrative authorities.

On the other hand, the function of quasi-governmental institutions responsible for disposal is supported. In view of the high risk involved, special waste disposal should be subject to particularly strict monitoring. Partial privatisation creating monopolies is considered a problem.

On the side of law-enforcement authorities, privatisation and deregulation tendencies create problems in producing evidence for criminal offences. Particularly in connection with special waste disposal, the practice of certifying disposers as “specialised waste disposers” is criticised because by now, almost all disposers have been certified and because there is not enough efficient monitoring.

Legal framework and the ensuing problems

Most of the experts see deficiencies in the German waste laws. German waste laws are unmanageable because of their complexity, their lack of clarity and their incomprehensibility. The complex structure of a multitude of regulations (44 ordinances) creates problems regarding their implementation, in particular on the part of the licensing authorities that suffer from personnel and finance deficiencies. Thus, there is a risk of the German waste law becoming a mere “symbolic” law.

Problems relating to the synchronisation of German and EU law are pointed out as well. Individual EU regulations are not converted to national law because of, inter alia, the federal and local structures in Germany. Also, the implementation of environmental laws by means of state ordinances is not sufficiently harmonised between the individual German states. This can lead to diverging law enforcement within one and the same federal state. In relation to the environmental law, the German federal system is considered to be suitable for Europe to a limited extent only.

Further implementation problems are based on the fact that other EU member states incorporate the EU environmental law into national legislation much

quicker, but show deficiencies in enforcing it. This creates competitive disadvantages for Germany. The EU itself has no body that actively monitors the implementation of the environmental law.

A further problem is the continual amendments to the law.

The “crucial question” is considered to be the lack of a sharp distinction between recyclable waste and waste to be disposed of, which creates great difficulties in terms of law enforcement. Often, wastes cannot be classified in accordance with the EC Waste Shipment Regulation because appropriate waste classification schemes have not been defined.

Neither the European nor the German waste laws prescribe explicit recycling standards.

The lack of clear definitions regarding the responsibility for recyclable waste and waste to be disposed of implies conflicts of interests between the public sector and private companies.

According to most experts, even the European Court of Justice and the German Federal Administrative Court fail to bring about legal clarity. Most recent judgements prepare the way for abuse in the form of bogus recycling and cross-border transport of waste. The consequence for criminal proceedings is that the search for legal norms takes up more time than the clarification of a given case.

In the end, due to complex structures and legal uncertainties, an insufficient number of activities are defined as punishable offences.

In view of the existing definitions of what constitutes a criminal offence, the experts criticise the German public order policy standards (which are higher than the standards in other EU member states but are not always enforced) because the law-enforcement authorities depend on decisions made by administrative authorities and have to cope with an insufficiently defined legislative situation that would not exist if only the politicians had provided “sound standards”. In this case, those in charge of criminal prosecution encounter problems related to the principle of mandatory prosecution.

The situation is further aggravated by the fact that public prosecutor's offices are considered to be part of the political system.

The Europeanisation of the law on waste will increase. In this connection it is feared that law-making is subject to too many compromises and dilutions (principle of subsidiarity). From a practical point of view, agreement between the numerous EU member states will become increasingly difficult. (Need for

translations, etc.)

Environmental standards will be harmonised not earlier than in 10 to 15 years. At the same time, environmental problems will increase and the government's financial capacities will shrink. Deficiencies in criminal prosecution are expected to arise throughout Europe.

Legal frameworks in the new member states vary. For instance, only five of the ten new member states have adopted transitional provisions regarding cross-border transport of waste. These transitional provisions are intended to limit the increase in waste transports and to thus avoid low-standard disposal as far as possible.

The experts criticise the lack of uniform regulations for the new member states. It is to be feared that the lack of uniform transitional provisions will lead to an increase in waste transports to countries without such provisions. In this respect, there is a particular risk of waste being transported to unapproved facilities.

On the other hand, it is possible that waste is bypassed through states without transitional provisions to states in which such provisions apply or that waste is further exported to non-EU states.

All in all, the enforcement of waste laws in the member states is assessed to be deficient. The new member states have failed to prepare themselves properly for EU accession. The relevant structures are only in the process of being set up. Thus, sufficient enforcement of transitional provisions is not ensured.

With regard to Germany, the lack of uniform transitional provisions makes it impossible, *inter alia*, to check transports effectively. It is impossible to get a clear overview of the great number of diverging regulations in these countries. Besides, in the case of cross-border waste transports, foreign disposal facilities cannot be controlled sufficiently.

The deployment of mobile control units will hardly make up for the monitoring gaps that result from the abolition of border checks.

All in all, it is predicted that the harmonising process in the new member states will take up 10 to 30 years. The speed of the harmonising process depends on the EU funds available, but also on the future political balance of power within the EU.

The number of illegal waste transports will increase during this harmonising phase. Generally, there will be a significant migration of offenders towards the East. Underground economy, mafia-type structures and areas not covered by

statutes will be taken advantage of. This goes for all fields of crime.

The German law on awarding contracts is assessed to be less critical than the German waste laws, even if it is difficult to handle. In this respect, law-enforcement is assessed to be problematic. The experts demand more stringent control and more transparency in relation to award procedures.

The legal situation in Europe is becoming more complex. The expansion of the European law on the awarding of contracts to include municipal duties is partly seen critically.

The main problem in connection with contract awarding is the risk of corruption. In practice, the biggest difficulties are generated by structural corruption.

The question is, if and to what extent contract awarding laws can be used for preventive purposes. Consistency on the part of those who have responsible positions in the fields of administration and criminal prosecution is much more important.

As to the risk of cartel agreements in connection with tender procedures in waste management matters, the experts are discriminating in their judgement. Concentration processes in the German waste disposal market are considered to be a natural reaction of the market that is due to the high need for investment. Opinions diverge as to the question of whether they promote or hinder cartel agreements.

Lack of control

According to police crime statistics, the number of reported cases of cross-border transports of hazardous wastes pursuant to section 326 II of the German Penal Code has been small since 1996, the year in which data of this kind were recorded for the first time. In the field of unauthorised handling of hazardous wastes pursuant to section 326 I, German Penal Code (domestic level), case numbers have dropped continually since 1999.

Possible reasons for the small numbers, or the decrease in case numbers, are an assumed huge number of unreported cases, the lack of control and an actual decrease in case numbers due to both improved disposal technology and a domestic market structure that has meanwhile become much clearer.

In the field of waste disposal crime, it is assumed that a huge number of such cases goes unreported throughout Europe. Professional *modi operandi* prevent

these crimes from being detected. The experts also point to the influence exerted by politicians who prioritise the free exchange of goods and the principle of co-operation with the economy rather than efficient control procedures.

As environmental crime is a field of crime that can only be revealed by controls/monitoring, the large number of undetected cases may be linked to lack of control. Lack of control is also caused by deficient law enforcement on the part of police, criminal justice and administrative organs.

The police are criticised for the relatively low status, compared to other fields of crime, they assign to the suppression of environmental crime. There is a lack of qualified personnel, technical equipment and funds. Environmental crime is a type of crime that must be detected actively. In those German states where the number of units investigating environmental crime has been significantly cut, the number of cases recorded in police crime statistics goes down as well. This explains the trend that is seen all over Germany. In those states where staff is not reduced or even increased, case numbers remain the same.

Furthermore, it is deemed necessary to give the police more legal competence in the field of monitoring waste law-related matters.

The criminal justice organs, too, suffer from a lack of qualified personnel. The expertise needed for handling environmental matters makes the subject matter a very unpopular one. The decisions German criminal courts make vary from case to case. Moreover, the courts tend to treat such matters as a breach of administrative rules, i.e. not as a criminal offence.

In the area of environment administration organs, the main problem also is the lack of personnel and funds. With their limited means, administrative organs are no longer capable of enforcing the complex waste laws. The bulk of work accomplished by administrative organs has been reduced to desk-top work which results in too few actual controls being made. These deficiencies also find expression in the so-called toleration of illegal situations. All in all, the number of detected illegal acts is constantly going down, and fewer suspicious acts are reported to criminal prosecution organs.

One of the reasons for this decrease is the administrative organs' fear of possibly being rebuked by criminal prosecution organs for deficient enforcement.

Moreover, from the administrative organs' point of view, providing sufficient grounds for criminal complaints is too difficult because of the great demands on the presentation of evidence in criminal proceedings.

Forecast regarding crime trends in waste management in connection with the EU's enlargement to the East

For the different categories of waste management crime, the following trends are forecast:

Most experts say there is no risk of illegal imports of hazardous wastes from the new member states because of both the relatively high disposal costs and the obligatory checks of incoming waste at German disposal facilities. It is not ruled out, though, that economic advantages can be enjoyed through imports of wastes declared as recyclable wastes which are then disposed of at older disposal sites in East Germany. There are practically no possibilities to carry out controls in the recycling chain.

All experts agree that there is a risk of illegal exports of hazardous wastes to disposal facilities in the new member states that are not approved for this purpose. Most experts judge this risk to be very high. The situation is compared to the one after East Germany's political turnabout. The risk is aggravated by the fact that there are no border controls any longer. Due to the range of prices for disposal and recycling processes and for disposal at home or abroad, high profits can be expected from criminal activities. Profits are weighed against the risk of criminal prosecution.

In this field, too, the modus operandi of re-declaring wastes as harmless wastes is employed. It is considered probable that German companies will set up bogus recycling facilities in the new member states.

Furthermore, there are warnings about the existence of „old secret networks“ in the new member states or „mafia-type structures in the East“.

According to most experts, the risk of illegal waste disposal in the new member states is even higher than the risk of illegal exports to unapproved facilities. Some experts think that the risk of illegal disposal outside regular sites in the new member states is low because of the extremely low environmental standards at official sites. However, most experts compare the situation to the one after East Germany's political turnabout, in particular in view of expansive countries such as Poland and the Czech Republic. Ignorance on the part of both authorities and private individuals as well as economic problems in the new member states are

taken advantage of. It is very easy to deposit waste in places outside official disposal sites, in particular because, all in all, law-enforcement on the part of the control authorities is judged to be deficient.

Transport controls are difficult to carry out because of the abolition of internal borders. In practice, it is difficult to take samples and to analyse and classify wastes on site. The reduction of appropriate agencies entitled to carry out checks only aggravates the lack of control.

Analogous to the situation in Germany, the experts predict a risk of corruption in relation to investments in waste disposal infrastructures or in connection with the privatisation of public waste-disposal duties in the new member states.

Corruption is not a problem typical for waste management, but the waste disposal industry in itself, similar to the construction industry, is very susceptible to corruption. Both public and private contractors are marked by considerable individual economic interests. Investments of hundreds of millions are not the exception, and such sums encourage corruption *per se*.

The reasons for corruption are manifold and complex. Structural corruption is found especially where unofficial political networks and concentration of power have existed for a long time.

In Germany, experience has shown that conflicts of interest are generally caused by the fact that private companies and public organs are closely linked in connection with the award of public contracts for waste disposal. On the part of the authorities, decision-makers often lack sufficient expertise in waste-disposal matters and are, compared to the sums in question, underpaid. The personal integrity of political decision-makers is criticised.

The experts agree that the problems in relation to corruption are more severe in the new member states than in Germany. In Eastern Europe, corruption is a cultural phenomenon that is rooted in traditions and is part of the usual way of doing business. Significant investments in the waste disposal infrastructure will be necessary there in the years to come. This creates a situation that is significantly marked by opportunities to commit illegal acts.

It is to be expected that, similar to the development in Germany, part of public waste-disposal duties are shifted to private companies and that German companies will become increasingly active in this market. In doing this, they are compelled to commit corruption. Also, agreements between market players are necessary in order to do business successfully. The situation as it will be in the

years to come is described as a complex one. It will be marked by an internationalisation of corruption, and it will become vital to adapt to corrupt behaviour.

Local administrations cannot cope with this change of system. Decisions-makers are paid even less than in Germany.

Corruption is seen as the most severe danger to a well-functioning market in the new member states. Law-enforcement problems in connection with international co-operation are foreseeable.

All experts agree that there is a risk of misappropriation of EU aid in the new member states. Due to economic problems, there are strong incentives to commit illegal acts and a low risk of discovery. Moreover, further illegal economic practices, such as tax offences, must be expected.