



Threat Assessment 2013 Environmental Crime in the EU

November 2013

Table of Contents

Key findings	3
1. Introduction	4
1.1 Context and purpose	4
1.2 Definition	4
2. The threat of illicit waste trafficking	6
2.1 Regional dimension	9
2.2 Organised crime groups	10
3. The threat of trafficking of endangered species (TES)	12
3.1 Regional dimension	14
3.2 Organised crime groups	15
4. Other environmental crime phenomena	16
5. Crime-relevant factors	17

Key findings

Trafficking of illicit waste

- The trafficking of illicit waste is a high-profit, low-risk activity, which remains under-reported and under-investigated, resulting in the identification of only very few Organised Crime Groups (OCGs) involved in this crime area.
- This activity is intrinsically linked to the legal economy and benefits from a drive to reduce costs during the economic crisis.
- Both OCGs and legitimate companies engage in trafficking of illicit waste. This means illicit waste trafficking has both an organised and a serious crime dimension, which require different approaches in investigation and prosecution.
- OCGs involved in the trafficking of illicit waste exploit the absence of EU-wide standardised control regimes and use fraudulent documentation as key aspects of their *modi operandi*.
- The trafficking of electronic waste to Africa and, to a lesser extent, Asia is increasing. Electronic waste has become a sought-after commodity traded for the value of the metals and resources contained in it, particularly in emerging economies in West Africa and parts of Asia.
- Italian OCGs continue to be involved in the trafficking of illicit waste and attempt to provide waste management services to both the private and public sector.

Trafficking of endangered species (TES)

- The trafficking of endangered species attracts highly specialised OCGs, which service a niche market. The OCGs reported are typically small in size with very few members and exclusively focused on the trafficking of endangered species.
- The specimens trafficked as part of TES include birds, mammals, reptiles, fish, herbs with medicinal properties and timber.
- The EU remains one of the most important markets for TES and also a destination and source region for endangered species. Certain rare species of birds, corals and tortoise are trafficked from Member States (MS) both to extra-EU destinations as well as other MS.
- Ivory and rhino horn poached in Africa or stolen in the EU remain in high demand, particularly with customers in China, and their sale generates significant profits for the OCGs dealing in them.

1. Introduction

1.1 Context and purpose

In addition to the recommended priorities established in the framework of the EU policy cycle for organised and serious international crime 2014 to 2017,¹ the EU Serious and Organised Crime Threat Assessment 2013 (SOCTA)² also indicated specific emerging threats, which require intensified monitoring. One of the emerging threats identified is *environmental crime*.

This in-depth Europol threat assessment follows the assessment presented in the SOCTA and aims to provide a detailed account of the threat of environmental crime in the EU. This threat assessment primarily relies on information provided by Member States (MS) and Europol's partners.

1.2 Definitions

Environmental crime encompasses a wide range of offences, which wilfully or purposefully damage the environment. Environmental crimes are frequently closely linked to different fraud offences and involve the use of fraudulent documents and certificates. The most prominent environmental crimes featuring the involvement of organised crime in the EU are the trafficking of illicit waste and the trafficking of endangered species (TES).

Trafficking of illicit waste

The trafficking of illicit waste entails the transportation, processing and disposal of waste outside the regulatory frameworks established by MS and the EU. All kinds of waste are trafficked, including household waste, electronic waste and other forms of hazardous waste. Depending on the type of waste, trafficking takes place within or between MS, and to countries outside the EU.

The shipment of waste and the trafficking of illicit waste are addressed by a number of international and EU-level agreements. The Basel convention³ aims to protect human health and the environment against the adverse effects resulting from the generation, management, trans-boundary movements and disposal of hazardous and other wastes and is the most comprehensive international agreement of its kind, with 175 parties. The OECD (Organisation for Economic Cooperation and Development)⁴ has established an intra-OECD Control System⁵ to monitor and supervise the trans-boundary movement of wastes destined for recovery operations between OECD member states.⁶

The shipment of waste within the EU is regulated by a number of directives and regulations including Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (the "Waste Directives"), Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, Commission Regulation (EC) No 1418/2007 of 29 November 2007 concerning the export for recovery of certain waste listed in Annex III or IIIA to Regulation (EC) No 1013/2006 of the European Parliament and of the Council to certain countries to which the OECD Decision on the control of trans-boundary movements of wastes does not apply.

Trafficking of endangered species (TES)

TES encompasses the trafficking of both fauna and flora. Endangered species are trafficked both from and to the EU, most often on behalf of wealthy clients eager to obtain protected species. TES most frequently entails the trafficking of exotic animals, parts of protected animals such as rhino horn and the trafficking of valuable timbers and other protected plants.

The trade in endangered species is subject to stringent regulation at an international level. The most comprehensive agreement, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), was adopted in 1973 and contains an extensive, regularly updated catalogue of species protected against over-exploitation in international trade in its three appendices. Other relevant agreements include the 1992 Convention on Biological

Diversity as well as the 2001 United Nations Convention against Transnational Organized Crime, which contains specific reference to the "illicit trafficking of endangered species of wild flora and fauna".

The EU has integrated the provisions of CITES in its own legal framework through a number of regulations, most notably Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein, which was amended by Commission Regulation 750/2013 of 29 July 2013. This regulation is supported by Commission Recommendation (2007/425/EC) of 13 June 2007 which identifies a set of actions for enforcement. Two additional directives specifically address the preservation of birds and habitats: Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds and Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, respectively.

Other criminal activities against the environment

A number of other criminal activities, frequently linked to fraud, can also be considered environmental crimes. However, these crimes are often investigated as fraud crimes rather than being pursued by authorities responsible for the protection of the environment or tasked with combating environmental crime. These criminal activities include petrol pollution as a result of the inter-mixing of low-quality petrol with toxic residues produced during the licit petrol production process, the sale of maritime vessels contaminated with asbestos, the environmentally hazardous sale of inappropriate biogas fuels and illegal sand mining.

While other criminal activity can also have a significant negative impact on the environment, this threat assessment will focus particularly on the two most widespread offences: the trafficking of illicit waste and trafficking of endangered species. Other important phenomena such as the mobile dumping of illicit waste in the context of synthetic drug production or the environmental impact of the production of counterfeit and sub-standard goods such as counterfeit pesticides are discussed in specific threat assessments on synthetic drugs and counterfeit goods.

2. The threat of illicit waste trafficking

Waste disposal is subject to stringent regulations and often involves substantial costs for businesses in need of both general and specialised waste disposal services. The regulations and standards governing the disposal of different kinds of waste have created a large market for the illegal disposal of waste at lower prices and without oversight. The promise of high profits and the risk of relatively mild sentences have attracted OCGs to this criminal activity. OCGs are involved in the trafficking of waste as traffickers, brokers and facilitators.

The trafficking of illicit waste involves the transportation, disposal or sale of waste including household, industrial and other hazardous waste. Other hazardous waste can include end-of-life vehicles, car parts and electronic waste such as discarded electrical and electronic equipment. European countries produce large quantities of all kinds of waste and although it is difficult to quantify the volume of waste trafficking in Europe, the size of this crime area should not be underestimated. MS have observed growing demand for illicit waste disposal services, often prompted by the introduction of stricter regulation and price increases for the legal disposal of waste products. As a result, some MS have seen a significant increase in the quantities of illicit waste seized, particularly of waste intended for exportation. For example, officers from the UK's HM Revenue and Customs (HMRC) seized over 14 tons of toxic waste from a diesel laundering plant in Northern Ireland in June 2013.⁷ Increased production and economic growth, but also financial constraints and increased competition as a result of the economic crisis, are likely to further exacerbate the problem.

Waste is trafficked both internally within the EU and to destinations outside the EU. Household garbage and industrial waste are typically trafficked within or between MS to avoid disposal fees or other costs associated with the proper disposal of the waste products in accordance with MS and EU regulations. This trafficked waste is often disposed of in illegal landfill sites or in MS with more convenient legislation or looser controls. Electronic and other hazardous waste is often trafficked within the EU or to destinations in Africa and, to a lesser extent, Asia.

Link to the legal economy

OCGs exploit businesses' core rationale of maximising profits and minimising costs by presenting themselves as "facilitators" in tackling the issue of waste management/disposal and offering their services at lower costs than those available on the legal market. The current economic crisis is driving companies to further reduce production costs and may encourage the proliferation of the use of OCGs offering illicit waste trafficking and disposal services. OCGs themselves are attracted to the trafficking of illicit waste and related criminal activities due to the low-risk, high-profit nature of these criminal activities. Despite known environmental harms and their long-term impact, a significant number of companies use illicit waste traffickers to dispose cheaply of waste produced during manufacturing or as a result of trading activities.

Serious versus organised crime in illicit waste trafficking

Legal business structures (LBS) are an integral aspect of the trafficking of illicit waste. While this crime area features the involvement of OCGs, not all waste trafficking is necessarily linked to organised criminal activity. Some companies otherwise operating entirely in the realm of legality choose to traffic waste or dump their waste illegally in an effort to save costs and maximise profits. Cost savings can be achieved by trafficking and disposing waste illegally in other jurisdictions in order to take advantage of price differentials for the disposal of waste across different MS or even within particular MS. The companies involved in such activities engage in a number of crimes including fraud and tax evasion. These cases constitute serious rather than organised crime and are often prosecuted as such. The relative level of involvement of registered companies in illicit waste trafficking in comparison with the involvement of OCGs and their misuse of LBS as front companies is currently unknown.

Global trade and transport

The trafficking of illicit waste has greatly benefited from the expansion of global transport infrastructures and, in the case of the trafficking of hazardous waste to extra-EU destinations, an increase in the volume of trade between the EU and the most affected destination countries in Africa and Asia. The emergence of a global market for waste, particularly electronic waste, has attracted the involvement of OCGs with access to the required expertise and capacities to organise the trafficking of large volumes of waste. OCGs use major harbours in the EU such as Rotterdam, Antwerp and Hamburg to traffic large amounts of hazardous waste in containers using false documentation.

Markets in destination countries receiving illicit waste, and electronic waste in particular, depend on the materials extracted from the illicit waste as resources for the production of goods in the legal economy. The extraction process is extremely harmful to the environment and those involved in the waste processing, resulting in severe and sometimes fatal damage to their health. The extracted resources include copper, nickel and other valuable metals and substances. This creates a large market for hazardous waste in destination countries where electronic waste is a commodity in itself and traded as such. Economic growth in destination countries sustains and increases demand for these resources and the European waste products that contain them. This dynamic favours the OCGs involved in this activity and is likely to result in an increase in trafficking activity from Europe to the affected regions.

Modi operandi

OCGs involved in the trafficking of illicit waste employ a range of *modi operandi* to carry out their criminal activities. These *modi operandi* vary depending on the type of waste trafficked (household/industrial waste vs hazardous waste) and the destination of the trafficked waste (intra-EU/MS vs extra-EU). The trafficking of illicit waste can be described in terms of an illicit waste cycle⁸, which includes an origin (marking the transfer from producers to waste managers), transit (involving the transportation and intermediate storage of waste) and destination (including the treatment, recycling and final disposal of the waste).

Exploitation of control regimes

OCGs generally attempt to use *modi operandi* that exploit weaknesses in MS and EU regulations. These methods have proven efficient both in terms of low rates of discovery and of maximising profits. OCGs involved in the trafficking of illicit waste are acutely aware of the weaknesses in waste control systems.

OCGs also make use of front companies to traffic waste under the guise of legality. These waste management companies may appear as legitimate and registered businesses to the relevant authorities, but are able to offer much lower prices to the consumers, due to their inadequate and non-compliant disposal of waste, when compared with similar companies following the regulations on appropriate waste disposal processes.

Falsification of documentation

The trafficking of illicit waste frequently relies on the falsification of certifying documents or other documentation. Changing waste "identity" on paper is frequently used to conceal the origins and actual composition of waste. This change of identity allows OCGs to dispose of hazardous waste usually requiring expensive disposal processes more cheaply, by masquerading it as regular waste only requiring low-cost disposal.

Hazardous, and particularly electronic, waste shipped to Africa and Asia in containers is often falsely declared as second-hand computer parts or other mechanical components. Even on inspection it is often difficult to determine whether a container shipment contains waste intended for scrapping or actual components, which will be sold on.

Waste disposal

OCGs and the front companies they employ use a variety of methods to dispose of the waste they traffic. These methods of waste disposal primarily apply to household and industrial waste trafficked and disposed of within the EU. Legitimate waste processing companies are occasionally used to cover illegal activities or to clean illicit waste.

Liquid waste is frequently poured into streams or lakes. This can mean that not only the local disposal site but also other areas further downstream are adversely affected by the dumped waste. Liquid or semi-liquid wastes such as mud are also poured onto cultivated land, which can damage arable lands as well as the crops growing on them. The contamination of land used for agricultural production also has the potential to introduce toxins into the food chain, either directly via the crops consumed or via crops fed to animals reared for human consumption.

Large amounts of illicit waste are also disposed of by introducing them into production cycles. For instance, some regular waste can be used to generate energy by burning. However, the use of unsuitable waste in blast furnaces can result in environmental damage as well as damage to technical facilities.

Industrial or toxic waste is also often mislabelled as regular household waste requiring no further treatment prior to disposal and then disposed of via regular waste disposal channels. This often means that required processing steps for industrial waste are simply omitted in order to avoid the costs involved.

Impact

The trafficking of illicit waste has a significant negative impact on the environment both in MS and in destination countries outside the EU. The most immediate effects of environmental damage caused by illicit waste trafficking are a decrease in the health of affected populations as well as the potential dramatic loss of arable lands in affected regions.

All types of illicit waste trafficking can entail dramatic consequences regardless of destination. The extraction of metals from hazardous waste trafficked to destinations in Africa and India results in the release of toxic substances into soil and groundwater and causes life-threatening conditions. Often entire communities are affected by the unsafe processing of these waste products. Mercury poisoning is a common side-effect of the processing of electronic waste, batteries and similar waste products and is particularly harmful to young people. Mercury has a range of serious health impacts including brain and neurological damage.⁹

Similarly, the inadequate disposal of toxic industrial waste within the EU can also have severe consequences for the environment in MS. Containers used to traffic hazardous waste, particularly electronic waste, to extra-EU destinations often have long resting periods in major EU harbours prior to their transportation and become an environmental threat to these source harbours.

It is difficult to quantify the financial impact of illicit waste trafficking. However, there are certainly significant costs related to both the loss of revenue for governments associated with illicit waste dumping as well as the substantial costs related to the clean-up of illegal dumping sites.

2.1 Regional dimension

Origins and destinations of trafficked waste largely depend on the nature of the trafficked waste. Western European MS are countries of origin for most trafficked waste products including household waste, industrial waste and other hazardous waste such as de-registered vehicle parts and electronic waste. MS in eastern Europe are both transit and destination countries for waste products. Electronic waste and end-of-life vehicle parts are increasingly trafficked from the EU to non-EU destinations in Africa (especially West Africa) and Asia (especially India, Vietnam and China), where they are broken down and processed to extract valuable metals and other substances.

Intra-EU trafficking

Origin: MS producing large amounts of waste (both household and industrial), mostly in western and northern Europe

Transit: MS in central Europe are the most affected as transit countries

Destination: MS in central and eastern Europe; often also MS which are primarily countries of origin throughout EU

The trafficking of illicit waste, particularly household waste and industrial waste, takes place within and between MS. Intra-EU trafficking of illicit waste usually sees the transportation of industrial waste from western European MS with high industrial output to MS in eastern Europe. However, some larger MS primarily observe the trafficking and illegal disposal of waste within their own borders rather than its exportation and importation.

The trafficking of used car batteries is very profitable and has a significant negative impact on the environment. However, the export of electronic waste and end-of-life vehicle parts such as batteries to the Baltic states is reportedly decreasing and this type of waste is increasingly shipped to non-EU destinations, particularly Africa.

Waste is also sold and trafficked within MS. This particularly affects household waste, which is less valuable as a commodity compared to electronic waste. OCGs are heavily involved in this area and are able to retain significant profits. In 2013, the Scottish Environmental Protection Agency (SEPA) noted the increasing involvement of OCGs in the dumping of waste in illegal landfill sites across Scotland. SEPA estimates that one illegal landfill site allows waste producers to avoid more than EUR 1.17 million (GBP 1 million) in taxes each month.¹⁰

Extra-EU trafficking

Origin: EU

Transit: EU MS with well-developed transport infrastructure and home to major harbours

Destination: West Africa (electronic waste, end-of-life vehicle parts), South-East Asia (electronic waste, plastics)

Waste traffickers exploit the well-developed port infrastructure in Europe to traffic hazardous waste to third countries, especially in Africa and Asia. Electronic waste is typically trafficked in containers on sea routes. These containers are frequently mislabelled as second-hand equipment to circumvent the OECD ban on the exportation of waste products to non-OECD destinations.

West Africa is a main destination region for trafficked electronic waste originating in the EU. Destination countries in the region include Nigeria, Benin, Ghana and Côte d'Ivoire. Tunisia and Morocco are additional destination countries for this type of waste. Hazardous waste, including electronic waste, is also trafficked to Asia, particularly to Vietnam, China and India.

Upon arrival in the region, the trafficked electronic waste is processed in order to extract copper and other raw materials, which causes significant environmental pollution and entails health hazards for the persons involved in the extraction process.

2.2 Organised crime groups

There is limited information available on the nature of the OCGs involved in the trafficking of illicit waste beyond the traditional Italian OCGs known to be active in this crime area. Generally, MS only report a few OCGs as being active in this crime area with a specific focus on activities related to illicit waste trafficking.

Various types of OCGs are active in this crime area and the nature of their activities depends to a large degree on the groups' access to resources, specialist expertise and contacts. OCGs with significant resources and expertise, such as Italian OCGs, are able to participate in large-scale illegal waste management and trafficking activities including manipulating tender processes and disposing of multi-ton amounts of waste. Smaller groups with fewer resources often focus on technically less demanding activities such as the trafficking of car batteries and other smaller items.

Knowledge and use of specialists

Depending on the nature of the trafficked waste, the OCGs involved in this crime area require a high degree of specialisation and expertise to circumvent controls, exploit regulations and, where necessary, process waste. While the intra-MS or intra-EU trafficking of household waste and subsequent disposal of household waste in illegal landfills requires comparatively little expertise, the trafficking of hazardous waste to extra-EU destinations requires sophisticated technical knowledge and access to forged documents. Specialists and experts working with these OCGs advise on regulatory loopholes and provide technical knowledge on how to dispose of the trafficked waste. OCGs are able to exploit a lack of harmonisation of sanctions across the EU as the relevant EU-level legislation primarily consists of EU directives, which are first transposed into national law, rather than EU regulations, which are adopted verbatim.

Intrinsically international in nature

Trafficking activities are intrinsically international in nature and the OCGs involved in waste trafficking have a significant international dimension. OCGs are typically based in the country of waste origin, but maintain strong ties to criminal elements in destination countries. In some cases, OCGs originating from the destination countries are driving the trafficking activities in source countries well.

OCG origins and structure

OCGs attempt to control the entire chain of waste processing from pickup to transport to actual disposal by using several LBS, each responsible for a specific step in the processing of waste. Waste trafficking activities involve different kinds of "operators" and actors, including the waste producer, the waste transporter, the owner of the waste disposal sites, as well as experts and technicians supporting the OCGs with expertise. The OCGs active in this crime area typically feature a strict division of responsibilities among the different group members (drivers, facilitators at harbours, etc.). Individual members of these networks are likely to be involved in other crime areas as well.

However, illegal waste trafficking requires the cooperation of other OCGs in destination countries. Some OCGs involved in transnational waste trafficking have ethnic links to destination countries, typically in West Africa and eastern Europe.

Use of Legal Business Structures (LBS) and profits

LBS are an integral part of the activities of OCGs active in the crime area. They are used as front companies to transport, sell and process waste and provide a façade of legitimate trading activity. OCGs use LBS to obscure their activities. Separate, ostensibly unconnected LBS are used to control the entire waste trafficking chain and are typically owned by the same OCG. LBS are also used to channel funds in order to bribe corrupt officials. Criminal proceeds from the trafficking of illicit waste are typically reinvested in LBS facilitating criminal activity, as well as in real estate and in tax havens. The OCGs involved often make use of financial experts, particularly accountants, to obscure profits and file false tax statements for the LBS used as part of the trafficking activity. The profits accrued by these OCGs are thought to be very substantial, frequently reaching millions of euros.

Italian organised crime

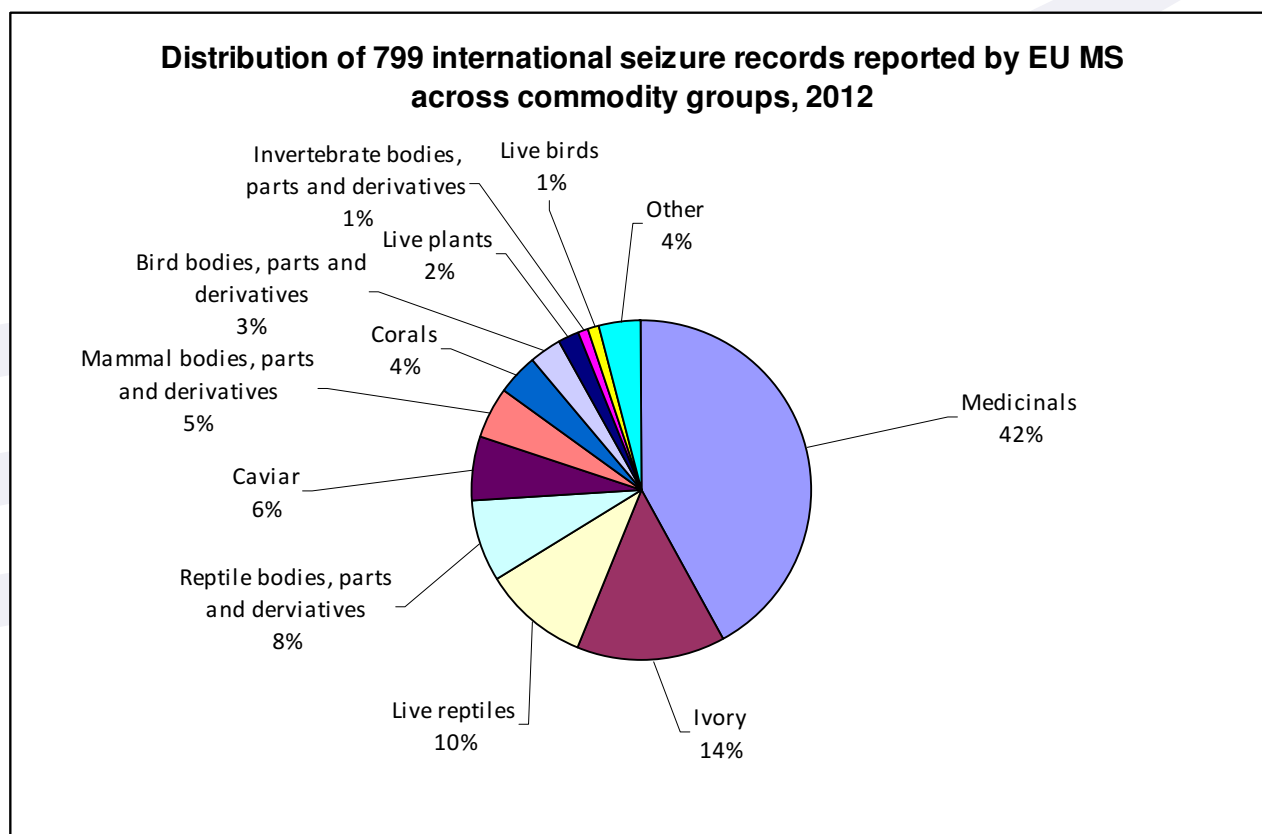
Italian organised crime has long been involved in this crime area and OCGs such as the Camorra and 'Ndrangheta continue to play an important role in the trafficking of illicit waste. These OCGs are highly flexible and quickly adapt to changes in the market and to relevant rules and regulations. These groups maintain strong links to enterprises involved in waste management.

3. The threat of trafficking of endangered species (TES)

TES includes the illicit sale and transportation of both fauna and flora. The EU remains one of the most important markets for TES. The specimens trafficked as part of TES includes birds, mammals, reptiles, fish, herbs and timber.

OCGs increasingly target wildlife covered by the CITES¹¹ Convention due to increasing demand for the rarest and most valuable specimens in flora and fauna. For instance, one kilogram of rhino horn is currently valued between EUR 37 000 and 46 000, nearly twice the price of gold. Pied crows can be sold for up to EUR 800 and a black eagle can be worth EUR 15 000. The majority of protected animals and plants come from Africa, Asia and South America. However, endangered species also originate from and transit through EU MS.

Rhino horn, elephant ivory and birds of prey are among the most typical trafficked animal species and the trade in them is assessed as being substantial. However, certain types of timber as well as herbal components also fall within TES and also generate significant amounts of profits for the OCGs and criminals involved. Seizure reports on specimens covered by CITES submitted by 17 MS for the year 2012 provide an indication of the distribution of trafficked specimens¹².



Source: *TRAFFIC, April 2013*

Medicinal products containing herbal substances protected under CITES take the largest share of seizures and are also likely to be the commodity trafficked in violation of CITES in the largest quantities. For instance, the herbal remedy *Hoodia gordonii* is covered under CITES and primarily marketed as diet medicine. Shipments of this herbal remedy almost exclusively originate from the US and Canada and have been noted repeatedly by DG Environment's Rapid Alert System for Food and Feed (RASFF).¹³

The demand for endangered species currently far outstrips the supply of available specimens, allowing OCGs to gain significant profits from their involvement in TES. Supply levels often depend on economic developments in countries of origin of these rare species. Economic downturns in source countries, particularly those in Africa and Asia, push more people into

poverty and the lucrative trade in endangered species. Despite the economic crisis in Europe, demand in countries of destination remains high and is met by an increasing supply from source countries. Demand for rare specimens, particularly rhino horn, is increasing at a significant rate, particularly in rapidly growing economies such as China, where growing disposable income and traditional use of certain medicines boost demand.

Demand for the commodities traded as part of TES is very specific and as a result illegally trafficked endangered species are typically obtained and sold on order. The internet has greatly facilitated OCGs in their ability to maintain contact with potential clients, advertise their services and receive orders. Trafficked specimens are purchased primarily by private individuals, but also manufacturers of certain medical products, particularly in the case of rhino horn.

Despite the specialised nature of the demand for trafficked commodities as part of TES, some trafficking activities can involve significant numbers of specimens.

Modi operandi

OCGs engaged in TES use a variety of *modi operandi* in order to traffic specimens of endangered species. The use of different *modi operandi* depends on the nature of the trafficked specimens. Larger live animals are typically trafficked using false papers, while smaller animals such as birds and inanimate specimens such as protected plants are more frequently trafficked in concealed spaces.

Individual couriers as well as the postal system are used extensively to transport valuable specimens, depending on whether the specimen is alive or not. Couriers transporting more exotic specimens from overseas tend to use air transport and hide the merchandise as part of their luggage. Other trafficking *modi operandi* also closely mirror those employed by drug traffickers. Trafficked specimens have been found concealed within sculptures or disguised as other goods. There have also been reports of supervisors accompanying some couriers trafficking protected specimens, similar to the use of drug mules.

In addition to the trafficking of endangered species in concealed containers by couriers, endangered species are also frequently trafficked using fraudulent documents, such as entry or sales permits or certificates falsely declaring the endangered specimens a non-CITES covered species.

Some OCGs have been found to falsely declare the intended purpose of the specimens. Live specimens are also stolen from zoos for trafficking and sale, including parrots, monkeys and tortoises.

Certain woods are also covered by CITES. As bulk commodities, tropical woods require a different *modi operandi* when trafficked. Frequently, border guards or customs personnel lack the required expertise to distinguish protected tropical woods from unprotected woods. Sometimes protected woods are trafficked among unprotected woods or full shipments of protected woods are covered by unprotected woods, significantly complicating their discovery. Falsified certificates are used to change the type of wood on paper from protected to unprotected ones. Protected woods trafficked to the EU are offered by both online and offline retailers. These retailers often engage in otherwise legitimate business activities in addition to illegally selling protected woods.

Impact

The potential extinction of endangered species is the most immediate and obvious result of TES and in some cases TES has already either significantly contributed, or has been directly responsible for the near extinction of species such as tigers, rhinos and elephants in some regions. The severe depletion of marine wildlife due to overfishing of protected species in contravention of international agreements or the disruption of ecological processes and biospheres due to the felling of timber are additional examples.

TES impacts not only on the environment, but also on source and transit countries. TES results in impoverishment due to significant losses in state revenues, the removal of livelihood options for some rural communities as well as the spread of certain diseases. Similarly, the corruption associated with this criminal activity undermines state institutions and the rule of law.

3.1 Regional dimension

Origin:

- Africa and EU for rhino horn and ivory
- Africa and South America for live specimens of endangered species such as turtles, monkeys and birds as well as timber
- Rare and endangered plants are frequently trafficked from the US

Destination:

- EU (plants, timber, specimens of rare species)
- China (rhino horn, ivory, certain specimens of birds and reptiles)

The EU is both a destination and source region for TES. Certain rare species of birds, corals and tortoises are trafficked from MS to extra-EU destinations as well as to other MS. The majority of specimens covered by CITES reaching the EU as a destination market originate from Africa and Asia.

Rhino horn and ivory are in particular demand in China, where they are used in traditional medicines. Certain OCGs have specialised in stealing these commodities from locations in Europe and selling them on to the Chinese and other markets. Rhino horn and ivory remain available in Europe as part of exhibitions and collections in museums and private homes. Both rhino horn and ivory are also trafficked from Africa via the EU to destination markets. OCGs acquire these commodities from poachers in various African countries and smuggle them to destination markets in Asia and, to a lesser extent, the EU, via EU infrastructure hubs. West Africa is now believed to be most significant source of illegally traded ivory on the international market.¹⁴ Recent seizures have confirmed that large amounts of ivory are trafficked from West Africa to China.

Africa along with Asia and the Americas are the main regions of origin for a large number of endangered species protected under CITES and trafficked to the EU by OCGs. The species can include birds, mammals, reptiles and invertebrates.

Timber is trafficked to the EU from Africa as well as South America using falsified certificates of origin. The companies importing these protected timber varieties primarily originate from the EU. Major harbours in the EU such as Antwerp, Hamburg and Rotterdam are the main entry points for protected timber to EU.

3.2 Organised crime groups

A number of highly specialised OCGs are active in this crime area. The OCGs reported are typically small in size with very few members and exclusively focused on TES. Unlike OCGs active in most other crime areas, the structures of the groups involved are variable and groups often only become active to service a specific order rather than continuously engaging in this activity. This is possibly linked to very specific demands and the perishable or delicate nature of some of the goods traded, such as live animals or eggs. However, some commodities such as rhino horn or ivory are in high demand at all times and groups acquire these without relying on specific orders.

Owing to the specific nature of the demand for endangered species, OCGs can show different levels of activity over the years, depending on sustained demand for the commodities they traffic. This makes it difficult to assess the volume or number of specimens trafficked by these groups on an annual basis.

OCGs involved in TES in the EU are usually dominated by EU nationals. They often cooperate with other criminal networks to launder their profits and arrange the sale of their contraband.

The groups involved in TES are innovative in obtaining their products. For instance, OCGs steal rhino horn in exhibition halls, museums, during sight-seeing tours in castles or during auction sales. Some OCGs use sophisticated technology.

OCGs engaged in TES sell on their contraband for very high prices and can consequently generate significant profits. Considering the price of the commodities traded as part of TES and the fact that profit often represents 6 to 10 times the initial investment into criminal activities made by OCGs, it can be assumed that some groups are able to generate significant profits.

OCGs engaged in TES use corruption, money laundering and forged documents to facilitate their trafficking activities.

4. Other environmental crime phenomena

Illegal, unreported and unregulated (IUU) fishing

IUU fishing takes place on the high seas as well as within territorial waters of the Exclusive Economic Zone (EEZ), complicating the enforcement of international and EU-level agreements banning these activities. Those engaging in IUU fishing are often not exclusively involved in this activity, but are frequently regular fishermen, who fish illegally if opportunities present themselves.

The economic crisis has increased both the supply of and demand for the products of IUU fishing. Economic pressures have resulted in diminished profits in legal fishing, pushing some professional fishing vessels into fishing illegally to supplement their income.

Facilitators such as brokers and retailers are involved in the importation/exportation or distribution of the products of IUU fishing and are typically legal companies, which either knowingly or unknowingly trade in these products. Depending on the scale of IUU fishing, some of the actors attempt to falsify certificates of origin or circumvent import/export checks.

In most cases, consumers remain unaware of the origins of the products bought. Production and retail chains often remain non-transparent to the customer and allow the products of IUU fishing to enter regular retail chains. IUU fishing is profitable due to the sustained demand for either cheaper products or for rare, protected or otherwise unavailable species.

IUU fishing has a significant impact on the environment, depleting stocks of particularly rare and protected species, threatening other species by the use of illegal fishing methods and often resulting in marine pollution. The economic impact is also considerable, leading to a loss of revenue due to the circumvention of taxes and duties, distorting market prices and threatening the livelihood of those engaged in legal fishing. A lack of information on the origins of these products as well as a lack of regulation and absence of quality controls potentially have serious implications for the health of consumers.

Illegal sand mining

The illicit removal and subsequent trafficking of sand is an emerging crime phenomenon and entails significant environmental damage to the coast lines of affected states. The off-shore removal of sand from the seabed can cause the collapse of coastal areas and loss of habitable land along coastlines. The effects of coastal erosion have proven so significant that Vietnam and Malaysia have banned the export of sand from their territories. There have been comparatively few cases in Europe, but the uncontrolled removal of sand has already impacted some coastal areas even in Europe.

Sand is harvested and trafficked to be used by a variety of industries. This is particularly true for the construction industry, but also, to a lesser extent, industries involved in the production of paper and washing powders.

There has been an increase in the harvesting of sand from the seabed due to the lower quality of desert sand and growing demand for sand as a commodity in China, Dubai, Morocco, the Philippines and Singapore.

The trafficking of sand is an emerging global phenomenon driven by demand in some of the fastest growing economies. No information is available on the involvement of OCGs in Europe or the targeting of particular MS for the trafficking of sand. However, this phenomenon should be closely monitored to anticipate further developments specifically related to the EU.

5. Crime-relevant factors

Crime-relevant factors (CRFs) shape the nature, conduct and impact of serious and organised crime activities. CRFs affect crime areas and the behaviour of both criminal actors and their victims. They include facilitating factors and vulnerabilities in society which create opportunities for crime or crime-fighting. They are the instruments by which serious and organised crime operates and are common to most areas and most groups.

Corruption

OCGs involved in environmental crime extensively use corruption to facilitate their activities. Corruption is closely associated with illicit waste disposal and used by OCGs to obtain false or falsified documents, circumvent exit and cargo controls or facilitate the entry of trafficked waste to destination countries. OCGs use bribes to corrupt staff members in waste analysis laboratories in order to change waste "identity" on paper.

Trade and transportation

In many cases environmental crime is a cross border activity involving several states. Environmental damage is not limited by borders, however, and can affect several states in some regions. The expansion of trade and overall improvements in transport infrastructures greatly facilitate the transport and trafficking of many goods, including illicit waste and endangered species. For instance, traffickers in illicit waste benefit from large trade volumes and accessible transport infrastructures between source and destination countries. . In light of overall trade volumes and the required level of expertise to identify illicit waste, it is very difficult to subject waste shipments to stringent checks.

The freedom of movement of goods and people realised in the Schengen Area allows for travel and transportations without the restrictions associated with regular border checks between MS. While this has greatly benefited trade and European mobility, it has also facilitated trafficking activity within the EU. Following entry to the EU, it is very difficult to follow the routing of shipments or persons transporting illicit commodities.

Internet and e-commerce

The internet is a horizontal issue affecting most, if not all, crime areas and environmental crime is no exception. OCGs involved in the trafficking of illicit waste or endangered species use the internet to communicate amongst OCG members and with potential clients. The internet particularly facilitates the trade in endangered species covered by CITES. Dedicated online forums enable consumers to anonymously place orders and approach the OCGs dealing in these commodities. In many cases, OCGs only acquire and traffic rare specimens on order, making online e-commerce sites a particularly significant facilitating factor.

Legislative differences

Legislative differences in the regulations governing the disposal of different kinds of waste between MS facilitate and in some cases even enable illicit waste trafficking activity.

Price differentials

Like legislative differences, price differentials in the costs associated with the disposal of waste are potential indicators for trafficking activities. A considerable variance in the costs associated with waste disposal may create incentives for companies to engage in illicit waste trafficking or seek out OCGs providing these services.

¹ <https://www.europol.europa.eu/content/publication/eu-policy-cycle-socta-empact-1775>

² <https://www.europol.europa.eu/content/eu-serious-and-organised-crime-threat-assessment-socta>

³ 1992 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

⁴ <http://www.oecd.org>

⁵ OECD Council Decision C(2001) 107

⁶ The OECD is an international economic organisation made up of 34 member states. 21 OECD member states are also EU MS.

⁷ <http://www.oecd.org/about/membersandpartners/>

⁷ HMRC Press Office 28.06.2013, Toxic waste seized at Co Armagh laundering plant, accessed on 20/08/2013 at <http://hmrc.presscentre.com/press-releases/toxic-waste-seized-at-co-armagh-laundering-plant-68ee4.aspx>

⁸ UNICRI 2013, Presentation on combating transnational trafficking of waste: lessons learnt from Italy, accessed on 25 July 2013 at http://www.unodc.org/documents/commissions/CCPCJ_session2/PNI/UNICRI.pdf

⁹ World Customs Organization 2013, Illicit Trade Report 2013

¹⁰ OCCRP Organised Crime and Corruption Reporting Project 03/07/2013, Scotland: Crime Groups and Illegal Landfills, accessed on 04/07/2013 at <http://reportingproject.net/occrp/index.php/en/ccwatch/cc-watch-briefs/2039-scotland-crime-groups-and-illegal-landfills/>

¹¹ Convention on International Trade in Endangered Species of Wild Fauna & Flora

¹² TRAFFIC April 2013, Overview of important seizures of CITES-listed specimens in the European Union: January to December 2012

¹³ DG Environment Rapid Alert System for Food and Feed (RASFF) Notifications

¹⁴ OCCRP 09.08.2013, Togo: Boss Of Ivory Trade Arrested, accessed on 13/08/2013 at

<http://www.reportingproject.net/occrp/index.php/en/ccwatch/cc-watch-briefs/2106-togo-boss-of-ivory-trade-arrested>