



# Environmental Crime



Environmental crime is generally used to describe any illegal activity that harms the environment. It can also have serious human health and social impacts. This POSTnote outlines the different types of environmental crime and options for tackling them.

## Background

The European Commission defines environmental crime as “acts that breach environmental legislation and cause significant harm or risk to the environment and human health”.<sup>1</sup> However, there is no universally agreed definition. It has been linked to other types of serious crime, including the drugs and arms trade, human trafficking, and, according to Interpol, the funding of terrorist organisations.<sup>2,3</sup> Environmental crimes are often considered a low priority by governments, as effects are generally indirect.<sup>4,5</sup> Bodies tasked with tackling them are commonly under resourced, and there is often a lack of specialist knowledge in law enforcement and prosecution bodies.<sup>2</sup>

The United Nations Environment Programme (UNEP) and Interpol have identified environmental crime as the fourth most lucrative crime type globally, behind drug smuggling, counterfeiting and human trafficking.<sup>2</sup> Estimating the scale of these crimes is difficult,<sup>6</sup> as there are no human victims, detection rates are low. Most data comes from instances where criminals were caught. It therefore reflects both the extent of law enforcement efforts and levels of reporting.<sup>7</sup> Environmental crimes incur low sentences compared with other crime types, such as drug smuggling, in many countries,<sup>2</sup> incentivising criminals.<sup>4</sup> Europol has identified two primary categories of environmental crime in Europe:

- Waste crime, which covers improper disposal of waste in breach of national or international law.

## Overview

- Environmental crime undermines the ability of governments to manage their resources.
- The two main crime types in Europe are waste and wildlife crime, which are high profit and low risk for criminals.
- Measures to address environmental crime are under resourced in comparison to other types of crimes worldwide.
- Preventing and prosecuting environmental crimes can be challenging because of difficulties in detection, law enforcement, and prosecution.
- It is currently unclear whether the UK will transpose relevant EU legislation into UK law after Brexit, or simply become a signatory of the related international treaties.

- Wildlife crime, which covers harm to wildlife within that country, as well as the illegal wildlife trade, which is any trade in prohibited wildlife or plant material.<sup>8</sup>

Environmental crime also incorporates illegal resource extraction - including fishing - pollution, and fraud around sustainability and carbon trading permits. Other crimes may be more significant outside of the EU. UK law on aspects of both of these crimes is derived from transnational treaties that are written into EU law. Wildlife and waste crime are the focus of this POSTnote, but other emerging threats are highlighted in Box 1.

### Box 1. Emerging Threats

- **Emerging wildlife markets.** The opening up of new wildlife markets is difficult to predict. In recent years, the illegal wildlife trade in Latin America has increased significantly, but receives less attention than Africa.<sup>9</sup> Levels of illegal fishing have risen in a number of regions, including the USA<sup>2</sup> and West Africa<sup>10</sup>, and illegal mining is a growing issue across much of the world.<sup>2</sup>
- **Carbon Trading.** Carbon trading is where a limit is set on how much carbon an entity can emit (POSTnote 428). Those who emit more must buy carbon credits, and those who emit less can sell spares. Non-existent carbon credits can be fraudulently claimed or sold, a crime known as carbon trading fraud. It is a relatively well established crime within Europe, but will increase as new carbon trading markets emerge.<sup>11</sup> Further, as carbon taxation is applied to more goods, issues around deforestation and sustainability are also likely to emerge.<sup>12</sup>

## Waste Crime

Improper disposal of waste can contaminate land, water, and air; and is often linked to organised crime and white collar crimes such as tax evasion.<sup>8</sup> Waste crimes allow money to be made with little risk of detection, as payment is taken before waste is improperly disposed of. This undercuts legal operations by legitimate waste disposal businesses. Sentencing and fines can be lower than the profit made.<sup>13</sup> As these crimes can be committed by businesses (Box 2), prosecutions may be complex.

### Transnational Waste Crime

Under the Basel Convention of 1992, it is illegal to ship waste the convention defines as hazardous from OECD to non-OECD countries. This is because of incidents of large amounts of waste being dumped in non-OECD countries.<sup>14</sup> Such countries often have poor environmental and health and safety standards, leading to pollution and the emission of dangerous gasses, with implications for both the environment and human health.<sup>15</sup> However, waste is still shipped to non-OECD countries to be disposed of cheaply. EU Regulation 103/2006, which controls shipments of waste, currently implements the Basel convention in EU law. It is unclear how the UK will transfer this into UK law upon leaving the EU.

Cross border and cross organisation communication is key in intercepting these shipments and prosecuting those involved.<sup>16</sup> The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) provide coordinated support to combat environmental crime in Europe. One investigation by IMPEL found that 35% of waste shipments from Europe to be illegal, with large amounts of waste being shipped to Asia and Africa.<sup>16,17</sup>

The UK is one of the EU member states with the largest number of reported illegal waste shipments.<sup>17,16</sup> With 15 million tonnes of waste shipped out of the UK each year, not every container can be checked.<sup>18</sup> This can be exacerbated by difficulties in distinguishing between waste electronics and working electronic goods, making it difficult for border forces to catch and prosecute illegal waste shipments.<sup>17</sup> Some crimes are also carried out by 'waste tourists' – people visiting the UK specifically to organise illegal shipments of waste,<sup>17</sup> but this increasingly done remotely.

#### Box 2. Corporate Waste Crime

Corporate waste crime is any waste crime committed by businesses. It can relate to the illegal dumping or shipment of waste, misdescription (where waste is incorrectly described in order to avoid taxes or regulations) and mismanagement, which can lead to pollution incidents.<sup>19</sup> The waste sector is mostly made up of small to medium sized businesses, which have low levels of investment and small profit margins. This can incentivise improper waste disposal.<sup>19</sup>

The Regulatory Enforcement and Sanctions Act 2008 gave the Environmental Agency (EA) the power to impose non-criminal sanctions – fines that do not go through the courts – in addition to criminal sanctions, on companies with over 250 employees for a number of corporate environmental crimes.<sup>20</sup> These can be cheaper and easier to impose than taking a company to court and can provide a way of recouping the costs of environmental crime.<sup>21</sup> The first civil penalty was imposed in 2016.<sup>22</sup>

Fines for these crimes are generally low. In response, rather than prosecuting, the Environment Agency (EA) in England often seek instead to disrupt waste shipments, at great cost to the criminals involved.<sup>13</sup> GPS trackers in waste could be used to track the movement of illegal shipments and identify the location of the perpetrators, but this would be classified as covert surveillance and require authorisation.<sup>23,24,25</sup>

### Waste Crime in the UK

In the UK, waste crime covers waste that is managed or disposed of without, or in breach of, necessary waste carrier, disposal, treatment or storage permits, as well as shipments of waste to non-OECD countries.<sup>13</sup> The remit for tackling waste crime lies with a combination of the environmental regulators (EA, Scottish Environmental Protection Agency, Natural Resources Wales and the Environment Agency of Northern Ireland), local authorities, the police, HM Revenue and Customs, and border officials. Some areas relating to waste crime are devolved, but others are not, such as laws on international waste shipments. Waste crime is estimated to cost the UK up to £1bn per year through tax evasion, lost profits to legitimate industry, and clean-up costs.<sup>13</sup> Stricter UK sentencing guidelines around waste crime were brought in 2014.<sup>26</sup> In 2016, a review of the new guidelines found that they were effective in increasing penalties for offenders.<sup>27</sup> The most significant types of waste crime in the UK include illegal waste sites and fly tipping.

#### Illegal Waste Sites

Illegal waste sites are those operating without a permit. In 2015, the EA shut down over 1000 illegal waste sites in England,<sup>19</sup> and estimates that, per illegal waste site in operation, £150,000-200,000 is lost.<sup>13</sup> In addressing this, challenges for the EA include:

- The resources and time it takes to prosecute illegal waste operators.
- There is a low barrier to entry for waste operators to be awarded permits. Exemptions to permits are also awarded on the basis of few requirements.<sup>13</sup>

Resources to detect sites may be limited, but satellites can be used in detection and can provide evidence for prosecution.<sup>23</sup> However, resources on the ground are still required to shut sites down and take criminals to court.<sup>13</sup>

#### Fly-tipping

Fly-tipping is the illegal deposit of waste on land not owned by the perpetrator. The parties responsible for dealing with fly-tipping and scale of the problem are discussed in the [House of Commons Library Briefing Paper SN05672](#). In 2014/15, fly-tipping cost local authorities in England over £60 million in clean-up costs and enforcement actions, with 70% of local authorities describing it as a growing problem.<sup>28</sup> Fly-tipping is driven by a range of factors.<sup>29</sup> It can be done for profit, by organised crime or by individuals looking to avoid landfill tax. It can be done for convenience, with fly-tipping more common in areas with poor tip access.<sup>29</sup> Fines for fly-tipping have historically been low and prosecutions difficult and lengthy.<sup>29</sup> Obtaining evidence to successfully prosecute fly-tippers can be challenging as there are rarely witnesses present.<sup>13</sup> Measures introduced recently to combat fly-tipping include allowing local authorities to issue fixed penalty notices of £150-£400 to

those caught in the act, and the seizure of vehicles suspected to be involved.<sup>30</sup>

### **Economic Benefits of Reducing Waste Crime**

Preventing these crimes is likely to be increasingly important as the UK and Europe move toward a circular economy (POSTnote 536). A recent report by the trade association Environmental Services Association suggested that for every £1 put into the enforcement of waste crime there is a £4.40 return, £3.20 of which would be a return to the public sector.<sup>13</sup> Partly in response to this, the EA in England was allocated an additional £23 million in funding to tackle waste crime in the 2015 Spending Review.<sup>31</sup> However, consumer awareness around waste crime is low; 47% of the public are unaware of their legal responsibility to check the waste carrier licences of anyone paid to dispose of their waste.<sup>32</sup> A large awareness campaign – Right Waste, Right Place – was launched in 2016 by the Environmental Services Association in conjunction with the EA, to raise awareness among small businesses,<sup>33</sup> and local authorities have carried out a number of campaigns aimed at the public.<sup>32</sup>

### **Wildlife Crime**

Wildlife crime occurs globally and generally consists of:

- Killing, harming or taking protected species for trade or food (Bushmeat POSTnote 236). This also includes illegal logging. It is also illegal to disturb many protected species.
- Killing animals using prohibited methods.
- Direct killings because of human wildlife conflict. These can be where people target protected animals or plants that cause loss of livelihoods,<sup>34</sup> or disregard planning regulations designed to protect species.<sup>35</sup>
- The illegal release of invasive species, which is a growing threat to species globally.<sup>36</sup>

One study of threatened species of animals found over 76% were threatened by overexploitation for food or trade, which is in many cases driven by illegal logging or poaching.<sup>37</sup>

### **The Illegal Wildlife Trade**

The illegal wildlife trade is any trade in parts of or whole plants and animals protected under national or international law. CITES is the international convention setting out which species are illegal to trade (Box 3), but some countries have additional laws that protect species at a national level. UNEP and Interpol estimate that annual resources lost via the illegal wildlife trade are between \$7 and \$23 billion annually for wildlife and \$51 to \$152 billion for illegal logging and deforestation.<sup>2</sup> On average, the EU makes 2,500 seizures of illegal wildlife annually,<sup>38</sup> but it is challenging to estimate the scale and cost of these crimes.<sup>39</sup>

Public awareness has risen dramatically over the past decade,<sup>2</sup> particularly in relation to large mammals such as elephants and rhinos (Box 4). They are poached for tusks and horns that are carved into ornaments, or, in the case of rhino horn, used in traditional medicine.<sup>2</sup> However, many more, lesser known species are also in high demand, including pangolins, hornbills<sup>40</sup> and seahorses.<sup>41</sup> Eels from the UK and Europe, which are CITES protected, are also collected for shipment to Asia.<sup>42</sup>

Impacts and drivers of the trade vary for the different species involved.<sup>2</sup> However, Interpol argue these crimes are mostly highly organised and are linked to other crimes such as human trafficking, the drugs and arms trades and corruption and money laundering.<sup>2</sup> Illegal timber and charcoal have been associated with funding terrorism in Africa according to Interpol.<sup>11,3</sup> These links can raise challenges for detection and enforcement.<sup>2</sup> Illegal logging for timber can lead to habitat loss and increased carbon emissions, with 10-15% of global carbon emissions estimated to come from illegal logging (POSTnote 466).<sup>2</sup> Poaching threatens the physical and financial security of local people, through the presence of armed individuals and potentially a loss of tourism revenue, and also affects ecosystems through species loss.<sup>43</sup> As species become rarer they become more valuable, further incentivising illegal species collection, which can lead to extinction.<sup>2</sup> Profits from wildlife crime often exceed any penalty incurred.<sup>2</sup>

Legal markets for many wildlife products exist (Box 4), making identification of illegal products difficult for border forces and law enforcement, as species that are illegal to trade often look similar to legal species.<sup>11</sup> Alongside this, any farmed wildlife products can be legally traded in most countries, such that wildlife farms can launder wild animals into the legal trade.<sup>44</sup> This has been seen in Uganda with pangolins, which are difficult to breed in captivity.<sup>45</sup>

### **Tackling the Problem**

Richer countries drive demand for wildlife products, but there are often cultural barriers to demand reduction, such as the cultural significance of ivory across much of Asia.<sup>46</sup> However, a number of countries have had notable

#### **Box 3. CITES**

CITES is the Convention on International Trade in Endangered Species of Wild Fauna and Flora. It is a multilateral treaty to protect endangered plants and animals, and is written into EU law through the EU wildlife trade regulations. It is currently not clear whether CITES will be written into UK law when it leaves the EU, or whether the UK will revert to simply being a signatory. CITES provides guidance and a framework for implementing national legislation on the wildlife trade, however it does not provide financial support for the implementation or enforcement of those laws. Countries are scored from 1 to 3 based on the strength of their national legislation on wildlife trade and are legally obliged to improve if legislation is lacking.<sup>47</sup> The UK is in category 3 – meeting all the requirements of CITES.<sup>48</sup>

#### **Appendices**

To date over 35,600 plant and animal species are listed by CITES. Species are listed in one of three appendices:

- Appendix I – Commercial trade in these species is illegal. Permits are needed for import and export. Permits can only be granted if the species removal does not adversely affect wild populations. Individuals bred in captivity fall under Appendix II. Examples of Appendix I species include tigers and pandas.
- Appendix II – An export permit is required but not an import permit. The exporting country must find that export of the specimens is not detrimental to its wild populations. One example Appendix II species is the European eel.
- Appendix III – consists of those species for which signatories have requested help from CITES in controlling their trade. Specimens require a certificate of origin from the member country that listed the species. One example is the Costa-Rican population of the two-toed sloth.<sup>44</sup>

**Box 4. Ivory and Rhino Horn Trade**

It is currently estimated from elephant death data that 30,000 to 40,000 elephants are poached annually in Africa, with a population decrease of over 100,000 elephants since 2013.<sup>49,50</sup> The number of rhinos killed has risen in the last decade, with 1,325 more poaching incidents reported in 2015 than 2007.<sup>51</sup> The most demand comes from Asia, particularly Vietnam and China. Between 2010 and 2014, 31 seizures of ivory were made per year on average in the UK with a relatively large seizure of 110kgs made at Heathrow in 2015.<sup>52</sup>

**Trade in the UK**

Both rhino and elephants are listed under Appendix I of CITES (Box 3), making international trade without permits illegal. Selling or advertising rhino horn in the UK without specific CITES permits is illegal,<sup>47</sup> but there is still a substantial legal ivory trade. Carved ivory can be legally traded within the UK and EU without a permit, or outside the EU with a permit, if it is from before 1947. Post-1947 worked ivory can also be traded within the EU with a permit<sup>52</sup>, but the current government have pledged to shut down this market, as part of a manifesto commitment.<sup>53</sup> However, the trade in ivory from the UK has increased since 2007,<sup>52</sup> and it can be difficult for law enforcement to establish the date of ivory items for sale, leading to the potential to launder illegal items into the legal ivory market.<sup>54</sup> As a result of this, and a push towards setting an international example, there have been calls for the UK government to go further and close the legal ivory market completely,<sup>55</sup> which has garnered public support.<sup>56</sup>

**UK Solutions to the Illegal Ivory Trade**

Fingerprint powder is used by law enforcement to identify who has handled illegal material. Traditional fingerprint powder is not very effective for use on ivory, making collecting evidence for prosecution during ivory seizures challenging. Kings College London, the Forensic Imaging Unit and Fingerprint Department at the Metropolitan Police, have developed new fingerprinting research using a powder that can be used effectively on ivory products. This is likely to provide key evidence in the future in the UK and abroad.<sup>57</sup>

successes in wildlife protection, hence reducing supply. For example, South Africa and Kenya have growing elephant populations.<sup>58</sup> Key to protecting wildlife are not only resources, but also local community involvement.<sup>2</sup>

Technology can also play a role in enforcement; for instance, satellites can be used to identify areas of illegal logging and deforestation, as well as illegal fishing. Radio carbon dating<sup>59</sup> and DNA analysis<sup>60</sup> help identify when and where species were killed. A number of companies have presented synthetic horn as a solution to rhino poaching, with an aim to launder fake horn into the legal market and bring down prices.<sup>61</sup> This approach is still in early stages, but a number of NGOs have objected.<sup>62</sup> Defra has set up an Illegal Wildlife Trade Challenge Fund, which has allocated over £9.8 million to date for projects aimed at halting the illegal wildlife trade.<sup>63</sup>

**Improving Enforcement**

Customs can intercept illegal shipments, but determining if a specific wildlife product is illegal can be challenging. Good access to forensic techniques for dating and identifying items is key in ensuring seizures and bringing prosecutions (Box 4).<sup>64</sup> The UK has a specialist CITES team in their border force, but little funding is available for forensic analyses, which are expensive. Customs, law enforcement and those involved in prosecution often have low levels of knowledge and limited resources. Cross organisational co-operation and communication is also key in tackling these crimes. A number of NGOs are compensating for this lack of

**Box 5. Persecution of Birds of Prey in the UK**

Under the Wildlife and Countryside Act, and the Wildlife Order in Northern Ireland, the killing of birds of prey in the UK is illegal.<sup>65</sup> A number of species are also protected from nest site destruction and disturbance. Despite this, birds of prey continue to be persecuted, with 1302 shooting or destruction incidents reported in the UK between 2009 and 2014.<sup>66</sup> Birds of prey are generally persecuted because they eat game birds, such as grouse and pheasants, and, in the case of eagles, they can pose a threat to young livestock, but all are killed illegally.<sup>67</sup> Illegal killings are generally accepted to be the reason behind low numbers of hen harriers in England and the absence of golden eagles.<sup>66</sup> There were only three successful hen Harrier breeding attempts in 2016.<sup>68,69</sup> There were 19 prosecutions in the UK in 2014, with 18 successful convictions.<sup>66</sup>

Scotland has maintained breeding populations of sea eagles, golden eagles and hen harriers despite persecution.<sup>70</sup> A proactive approach is taken to conserving these species, with the environment minister sitting on the raptor persecution prevention group.<sup>71</sup> Scotland also saw the first jail sentence handed down for these crimes in 2015<sup>72</sup> and the introduction of vicarious liability law for these crimes, whereby landowners are responsible if their staff kill birds of prey.<sup>73</sup> A similar measure has been suggested by the Sentencing Council for England and Wales for the rest of the UK.<sup>26</sup> A licencing scheme has also been proposed by various stakeholders, such as the RSPB.<sup>74</sup> In 2016, a public petition on banning driven grouse shooting, in part motivated by the associated illegal killing of raptors, reached 100,000 signatures and was debated by the House of Commons Petitions Committee.<sup>75</sup>

resources. For example, the Wildlife Justice Commission investigate wildlife crimes, passing evidence onto police and governments, recently bringing down two organised crime outfits in Malaysia that were illegally trading animal parts.<sup>76</sup>

**Wildlife Crime Within the UK**

In the UK, a small specialist police unit of 12 staff – the National Wildlife Crime Unit (NWCU) – are responsible for assisting local police forces with dealing with wildlife crimes. There are currently six national wildlife crime priorities: persecution of badgers, bats, and birds of prey (Box 5), poaching, the introduction of freshwater pearl mussels, and the illegal wildlife trade.<sup>77</sup> The NWCU also cover other wildlife crimes, notably those related to invasive species and the illegal collection of eels.<sup>77</sup> The Partnership for Action Against Wildlife Crime (PAW UK) brings together those working on wildlife crime from across government departments, the NWCU, and NGOs, to combat wildlife crime.<sup>78</sup> Many laws on wildlife crime in the UK are devolved; in 2015, the Law Commission made recommendations for the reform of wildlife law in England and Wales to reduce its complexity.<sup>79</sup> There is currently no database kept of reported wildlife crimes for England and Wales, although the RSPB investigations team keep their own records of bird crimes.<sup>66</sup> Police statistics are kept in Scotland; 1499 wildlife crimes were recorded by between 2009 and 2014, with 313 criminal proceedings brought. This is likely to be an under-representative of UK wildlife crime, as these crimes often occur in remote areas, and therefore go undetected. At a local police force level, knowledge of these crimes can be lacking and there is little to no specialist training.<sup>77</sup>

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