

Wildlife Crime: Testing the Waters for Ecocide

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Introduction

Wildlife crime – broadly understood as killing and/or trafficking in endangered species – is out of control. In 2017, Hong Kong authorities made what was then the world's largest ivory seizure, of around 7.2 tonnes. Two years later, in 2019, this record was exceeded three times in the space of three months, with the largest seizure reaching 9.1 tonnes.⁵ It can be estimated that over 900 elephants were killed for this last seizure alone.⁶ Many of the targeted species are expected to become extinct in the wild in the coming years: the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services has warned that one million species are facing extinction in the next decades.⁷ The loss of a species disrupts the delicate balance of the entire ecosystem, and the threat to the stability of ecosystems has never been this pressing. As the world is negotiating the post-2020 global biodiversity framework, with one of the key objectives of protecting 30% of land and sea areas, matters pertaining to the effective protection of these areas and the species they host will only become more relevant.

Proponents of a new international crime of ecocide argue that the destruction of our shared environment presents a threat at least on the scale of the existing international crimes, and should therefore be included in their number. It is widely acknowledged that this threat results from the three interlinked factors of climate change, pollution, and biodiversity loss. The current system for the preservation of biodiversity and endangered species through the prevention of wildlife crime is failing. Lack of resources and jurisdictional constraints often leave domestic law enforcement agencies unable to deal with the transnational criminal networks responsible. In this paper we explore whether the concept of ecocide as an international crime could offer the breakthrough required for wildlife crime to be effectively addressed internationally.

What is the crime of ecocide?

In June 2021, an independent panel of experts convened by the Stop Ecocide Foundation, and chaired by Philippe Sands and Dior Fall Sow (the "Independent Expert Panel" or "IEP"), issued

⁵ Wildlife Justice Commission (2019). *Snapshot Analysis: Ivory Smuggling 2015 – 2019, concealment, routes, and transportation methods*, p.2

⁶ Estimating that two elephant tusks weigh 10kg on average.

⁷ IPBES (2019). *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*

a proposed definition of ecocide to be included in the Rome Statute of the International Criminal Court. The IEP definition is as follows:

Ecocide

1. For the purpose of this Statute, "ecocide" means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.

2. For the purpose of paragraph 1:

a. "Wanton" means with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated;

b. "Severe" means damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources;

c. "Widespread" means damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings;

d. "Long-term" means damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time;

e. "Environment" means the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space.

In the following sections we examine whether and to what extent this definition could capture wildlife crime.

What is wildlife crime, and why should it be prosecuted internationally?

Trade in wildlife is regulated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, commonly referred to as CITES, to which almost all member states of the United Nations are party.⁸ CITES works by subjecting international trade in specimens of selected species to controls, including requiring licences for import, export, re-export and introduction from the sea of species covered by the Convention. These are listed in three

⁸ States not party to the Convention are DPRK, Federated States of Micronesia, Haiti, Kiribati, Marshall Islands, Nauru, South Sudan, East Timor, Turkmenistan, and Tuvalu.

Appendices, according to the degree of protection they need. Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances. Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival. Appendix III contains species that are protected in at least one country which has asked other CITES parties for assistance in controlling the trade.⁹

The definition of wildlife crime is not anchored in an international treaty; however, the concept has been defined as “the taking, trading (supplying, selling or trafficking), importing, exporting, processing, possessing, obtaining and consumption of wild fauna and flora, including timber and other forest products, in contravention of national or international law”.¹⁰ While this definition can cover a variety of acts, from subsistence poaching in local communities to organised transnational crime, only the most severe are relevant to the concept of ecocide. For the purpose of this paper, then, wildlife crime will only be discussed in its most severe form.

There are a number of features of wildlife crime in its most severe form that make it an issue of international concern, and suggest it would be appropriately treated as an international crime. Many of these will be of relevance in ecocide prosecutions, either in assessing whether the anticipated harm is sufficiently severe, widespread or long-term, or in assessing whether the particular crime is of sufficient gravity under article 17 of the Rome Statute to be admissible at the International Criminal Court.¹¹ The impacts on ecosystems, global health, public institutions, and local economies are further considered below. Other over-arching issues include the scale and organised nature of this phenomenon.

In recent decades, wildlife crime seizures have reached new heights, revealing the vast scale of the activity. To give just a few examples, despite pangolins being elevated to the highest level of protection under CITES Appendix I in 2017, the quantities seized suggest that over 350.000

⁹ [How CITES works | CITES](#) [Accessed 12 September 2022]

¹⁰ The International Consortium on Combating Wildlife Crime, a consortium comprised of the Convention on International Trade in Endangered Species (CITES) Secretariat, INTERPOL, the United Nations Office on Drugs and Crime, the World Bank, and the World Customs Organisation. Available at: <https://cites.org/eng/prog/iccwc/crime.php> [Accessed 21 July 2022].

¹¹ Under article 17(d) of the Rome Statute of the International Criminal Court, a case is inadmissible if “it is not of sufficient gravity to justify further action by the Court”.

pangolins were killed in the following two years.¹² Over the course of the ten years from 2011 to 2021, 100.6 metric tonnes of sea-cucumber were seized by Mexican and US authorities, and this transnational trafficking has impacted the survival of the species in Mexico.¹³ In May 2020, Hong Kong Customs seized 26 tonnes of dried shark fins originating from Ecuador, estimated to have been taken from 38,500 protected sharks.¹⁴ The removal of apex species, such as sharks, from an area can destabilise the entire ecosystem.¹⁵

Although wildlife crime has historically been perceived as a domestic issue in the academic literature, with an emphasis on the reduction of poaching,¹⁶ the volume of trade revealed by the seizures indicates the involvement of organised crime. An advanced level of organisation is required to plan and facilitate the transport of these illicit commodities across borders. Organised criminal syndicates rely on fraud, forgery, and corruption to ensure that their cargo reaches its end destination in demand countries.¹⁷ The organised, transnational, and often industrial nature of this crime has been recognised by the UN General Assembly,¹⁸ and has been recently demonstrated by investigations of the Wildlife Justice Commission.¹⁹

From a policy perspective, wildlife crime in its most severe form is serious organised transnational crime, with damaging consequences for the planet. Despite the laws in place for protecting our wildlife and environment, the industrial scale of the problem shows that current responses are inadequate. The actors most responsible often remain untargeted by law enforcement efforts and are able to continue orchestrating crimes across multiple jurisdictions. There is an urgent need for new tools and approaches to effectively tackle this phenomenon.

¹² This number was calculated using the method by Challender D., & Waterman, C. (2017). *Implementation of CITES Decisions 17.239 b) and 17.240 on Pangolins (Manis spp.)*. [Online]. Available at: <https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-57-A.pdf> [Accessed 9 August 2022].

¹³ Phelps Bondaroff, T. N. *et al.* (2022). Characterising changes in a decade of Mexican sea cucumber crime (2011–2021) using media reports. *SPC Bêche-de-mer Information Bulletin*, 42(1), p.11

¹⁴ Lo, C. (2020). Biggest shark fin seizure in Hong Kong history recovers 26 tonnes, mostly from endangered species, in shipments from Ecuador, *South China Morning Post*, 6 May 2020. Available at: <https://www.scmp.com/news/hong-kong/law-and-crime/article/3083184/biggest-shark-fin-seizure-hong-kong-history-recovers> (Accessed 16 August 2022).

¹⁵ Heupel, M.R. *et al.* (2014). Sizing up the ecological role of sharks as predators. *Marine Ecology Progress Series*, 495(1), pp.291-298.

¹⁶ Warchol, G. L. (2004). The Transnational Illegal Wildlife Trade. *Criminal Justice Studies*, 17(1), p. 57

¹⁷ UNODC (2020). *World Wildlife Crime Report 2020: Trafficking in Protected Species*, p.31.

¹⁸ United Nations General Assembly (2021). “*Tackling illicit trafficking in wildlife*”, RES/75/311.

¹⁹ See Wildlife Justice Commission (2018). *Operation Dragon – Revealing new evidence of the scale of corruption and trafficking in the turtle and tortoise trade*, and Wildlife Justice Commission (2020). *Operation Jeopardy: The Growing Relevance of Cambodia in the Global Ivory Trade*. The Wildlife Justice Commission carries out investigations to protect vulnerable species from transnational organised crime – see www.wildlifejustice.org

Wildlife crime and ecocide

In order for serious wildlife crime to be prosecuted as ecocide under the IEP definition, it would have to qualify as “unlawful or wanton acts committed with the knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.”

The definition of the environment makes clear that fauna and flora themselves, as well as the ecosystems of which they are part, fall within it: “**Environment**’ means the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space.”

The level of harm is specified as “**severe and either widespread or long-term**”.

Severe damage to the environment, required in all cases, is defined as “damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources”. In the case of serious wildlife crime, the appropriate element of the environment to consider might be a particular species along with the role it plays in its ecosystem. What would constitute a very serious adverse change, disruption, or harm to the species? Acts which threaten a species with extinction would certainly be included, and much wildlife crime falls into this category. Acts that threaten a significant part of a species may also satisfy the severity element of the crime of ecocide. This is an important point as species do not know geopolitical borders and are often isolated in protected areas surrounded by a sea of humanity. There are instances where species could be endangered in one area and flourishing in another area. Such a determination will be dependent upon the particular facts of each case.

Endangered species sought after for illegal purposes include the estimated 4,000 tigers left in the wild, whose survival is greatly endangered by the live pet trade, and the fewer than 19 vaquitas left on the planet, due to illegal gillnet fishing of totoabas in the Gulf of California.²⁰ Scientific evidence would be needed to determine whether a particular action or group of actions in themselves caused a “substantial likelihood” of extinction, or threatened the survival of a species. The complex and interrelated nature of ecosystems and species may, in some

²⁰ Jaramillo-Legorreta, A. M., *et al.* (2019). Decline towards extinction of Mexico's vaquita porpoise (*Phocoena sinus*). *Royal Society open science*, 6(7).

circumstances, make it hard to determine with absolute certainty that the removal of a certain number of animals will lead to extinction, and this case highlights the benefits of framing ecocide as a crime of endangerment. The substantial likelihood threshold in the IEP draft more closely reflects a scientific approach, while capturing those acts which need to be prohibited. This threshold is also consistent with the customary international law principle of precaution.

If the acts are determined to meet the “severe” standard, they must in addition qualify as either “widespread” or “long-term”.

Widespread is defined as damage which “extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings.” Damage to an entire species has already been considered, but the “widespread” definition highlights the additional effects on the ecosystem of eliminating a species. Ecosystems exist in a state of dynamic equilibrium in which the diversity of species play an essential role. The removal of key species through wildlife crime reduces biodiversity and can contribute to damaging already weakened ecosystems. The resulting ecological imbalance accentuates the deterioration of natural habitats, contributes to global climate change, and creates a negative feedback loop.²¹ Acts which threaten or risk the elimination of an entire species, then, are likely both severe and widespread.

Long-term damage is defined as “damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time.” In the case of wildlife crime which threatens the existence of a species, the criterion of long-term seems easily satisfied. Once a species of fauna or flora is lost, it is lost forever.

A question arises as to whether great suffering of animals would be captured by the definition of harm. In other words, whether, in addition to the survival of the species, animal welfare is a value protected by the crime of ecocide. An animal welfare perspective would take animals themselves as the element of the environment to be protected, while a bio-diversity lens would focus on the species. This paper takes the latter approach, while noting that to consider

²¹ Verma, A. K. (2018). Ecological Balance: An Indispensable Need for Human Survival. *Journal of Experimental Zoology India*, 21(1), pp. 407-408.

individual animals as elements of the environment under the IEP definition raises some interesting questions about the gravity of the crime.²²

The second threshold in the definition of the crime defines the prohibited acts as either “**unlawful or wanton**”.

The **unlawful** criterion is easily satisfied in the case of wildlife crime, which we are defining as the taking, trading, importing, exporting, processing, possessing, obtaining, and consumption of wild fauna and flora *in contravention of national or international law*.²³ It is conceivable that such acts could take place in a jurisdiction which has not enacted laws to regulate them, either because a state party to CITES has failed in its obligations under the treaty, or where the states concerned are not parties.²⁴ In these cases, the acts would have to qualify as “wanton”, or “with reckless disregard for damage which would be clearly excessive in relation to the social or economic benefits anticipated”.

The proportionality test contained in “wanton” has in some ways already been carried out at a higher level in the CITES system, when determining the level of protection to offer to each species according to how close it is to extinction. For example, flora or fauna which are threatened with extinction and so appear on Appendix I can only be traded if it is certified that the trade will not be detrimental to the survival of that species; that any living specimen will be shipped as to minimize the risk of injury, damage to health, or cruel treatment; and if the trade is not primarily for commercial purposes but rather, for example, for scientific research, with its attendant social benefits.²⁵ Low social benefit commercial trade is prohibited when the risk of resulting damage is high.²⁶ (Note that, while not the primary concern of CITES, the second factor here does address animal welfare.)

When the wanton test applies, an examination of the social and economic benefit of the acts is unlikely to outweigh any harm. In fact, wildlife crime entails serious negative socio-economic consequences. First, the destruction and destabilisation of ecosystems through the smuggling

²² For a discussion of the role of framing in the development of international law and wildlife protection, see Nollkaemper, A. (2014). Framing Elephant Extinction. *ESIL Reflections*, 3(6). <http://www.esilsedi.eu/node/643>

²³ See footnote 6, above.

²⁴ See footnote 4, above, for the list of the 11 states not parties to CITES.

²⁵ For full list of requirements see CITES article III.

²⁶ Although note that the protections afforded by CITES are the result of a political process, which may not always focus on the conservation status of the species.

of illicit products poses grave risks to global health. The destruction of forests and other natural habitats brings animals and humans in closer contact and can increase the chances of a virus crossing the species barrier. Wildlife crime can play a significant role in the spreading of zoonotic pathogens in an already globalised world.²⁷

Second, wildlife crime often converges with other forms of organised crime and relies on fraud, money laundering, and corruption.²⁸ Corruption, in particular, is an important driver of wildlife crime, enabling it to take place transnationally and on a large scale. Wildlife criminal networks both rely on a culture of corruption and generate further corruption themselves. Wildlife crime thus weakens public institutions, impedes law enforcement efforts, and erodes the rule of law in general.

Third, as a result of the crime and its devastating impacts, local populations are deprived of the ecosystems on which their livelihoods depend. Billions of people rely on wild species in stable ecosystems for food, medicine, energy, or income.²⁹ The World Bank has estimated that the economic cost of wildlife crime ranges from USD 1–2 trillion annually, stating that: “Illegal logging, fishing and wildlife trade deplete the world’s natural resources, deprive nations of needed revenues, and undermine key ecosystem services such as carbon storage, biodiversity conservation, and water filtration”.³⁰ Furthermore, wildlife crime impedes the ability of communities to sustain themselves through the growing nature-based tourism industry. In the meantime, it is estimated that wildlife crime generates up to USD 199 billion annually for the criminals involved.³¹

In short, in the few cases where wildlife crime causes severe and either widespread or long-term damage to the environment and is *not* illegal, it will almost certainly satisfy the wanton criterion.

Conclusion

²⁷ Bezerra-Santos, M. A. *et al.* (2021). Illegal Wildlife Trade: A Gateway to Zoonotic Infectious Diseases. *Trends in Parasitology*, 37(3), pp. 181-184.

²⁸ Wildlife Justice Commission (2021). *Convergence of wildlife crime with other forms of organized crime*.

²⁹ IPBES (2022). *Sustainable Use of Wild Species Assessment Summary for Policymakers*, p.1.

³⁰ World Bank (2019). *Illegal Logging, Fishing, and Wildlife Trade: The Costs and How to Combat it*

³¹ IPBES (2022). *Sustainable Use of Wild Species Assessment Summary for Policymakers*, p.16.

Serious wildlife crime fits within the proposed definition of the crime of ecocide, certainly where the survival of a species is threatened. In such cases, the damage qualifies as severe and both widespread and long-term, and in most cases the acts will be unlawful. In the very few cases where unlawfulness cannot be established, the wantonness threshold is easily met.

While domestic prosecution of wildlife crime continues to be critical, the legal vehicle of ecocide can play an urgently-needed role. Most importantly, the prosecution of wildlife crime as ecocide could help fill the current accountability gap, providing judicial *fora* for prosecution where relevant states are either unwilling or unable to deal with the crime, under the principle of complementarity.³² Beyond this, it may facilitate international cooperation to combat these transnational crimes, in part through establishing common legal elements and avoiding disparate treatment of similar offences in different jurisdictions. Finally, it can play an expressive function and augment the international stigmatisation of wildlife crime.

In turn, wildlife crime may offer fertile ground for the concept ecocide to prove its viability and relevance. With almost global acceptance of the CITES framework, the prohibition of wildlife crime can be said to be an internationally accepted standard, making it a straightforward candidate for prosecution at the international level. The behaviour of the illegal wildlife trafficking networks is not only unlawful, but already criminal. And wildlife crime is a direct and visible driver of the urgent threat to biodiversity which threatens to destabilise our environmental system. The prosecution of wildlife crime as ecocide offers an effective way to address this transnational crime, while highlighting its broader environmental impact.

³² Under article 17(1)(a) of the Rome Statute, the court shall determine that a case is inadmissible where it is being investigated or prosecuted by a state with jurisdiction, unless the state is unwilling or unable genuinely to do so.