GLOBAL TREND REPORT

MONITORING ONLINE ILLEGAL WILDLIFE TRADE

SETTING THE STAGE: PAST, CURRENT AND FUTURE EFFORTS

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ECO SOLVE

GI-TOC

GIFP
Global Illicit Flows Programme

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CONTENTS

ACRONYMS AND ABBREVIATIONS

ACCO	Alliance to Counter Crime Online
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSO	Civil society organization
DSA	Digital Services Act
GI-TOC	Global Initiative Against Transnational Organized Crime
IWT	Illegal wildlife trade
NGO	Non-governmental organization
VLOP	Very large online platform
WWF	World Wide Fund for Nature

INTRODUCTION

The illegal wildlife trade (henceforth IWT) is one of the world's most lucrative criminal activities[1] and much of the trade takes place online. The phenomenon has tremendously harmful effects on biodiversity and animal welfare, while it also exacerbates the risk of spreading zoonic diseases.[2] Most online IWT occurs in the open online space – on e-commerce platforms, social media and messenger services such as WhatsApp – where sellers freely showcase wildlife or wildlife products to potential buyers. The ease with which illegal advertisements can be found online reflects the high level of impunity (and the low level of risk) enjoyed by those engaged in the trade.[3]

The online illegal wildlife trade is characterized by several key trends. First, traffickers exploit a diverse array of online platforms, spanning social media, marketplaces, messaging apps and encrypted channels to market and distribute illegal wildlife products. Second, online IWT is characterized by global reach, transcending geographical boundaries and regulatory jurisdictions, thereby making enforcement of wildlife protection laws a complex undertaking. Finally, the phenomenon has led to the fragmentation of traditional supply chains, with small-scale traders and individual sellers operating alongside larger criminal syndicates. Having a larger number of potential targets makes it difficult for law enforcement to efficiently prioritize and dismantle trafficking networks.[5]

Recent publications have shed light on the alarming surge in IWT occurring on the internet.[6] A significant hindrance in combating this crime is the dearth of data regarding the scale of the market, its dynamics, modus operandi and resultant consequences, especially on a global scale. To address this issue, ECO-SOLVE is developing a Global Monitoring System to monitor online IWT systematically and to gather global data to feed into law enforcement action and to inform policymaking. By identifying areas of high pressure on endangered species and ecosystems, surveillance activities can enable targeted interventions to prosecute traffickers and wider criminal networks

DEFINING ONLINE ILLEGAL WILDLIFE TRADE

Online wildlife trafficking refers to the illegal trade in protected wildlife species and their derivatives facilitated through online platforms and digital means. It encompasses a wide range of activities, including the sale of live animals, exotic pets, animal parts and products derived from endangered species.[4]

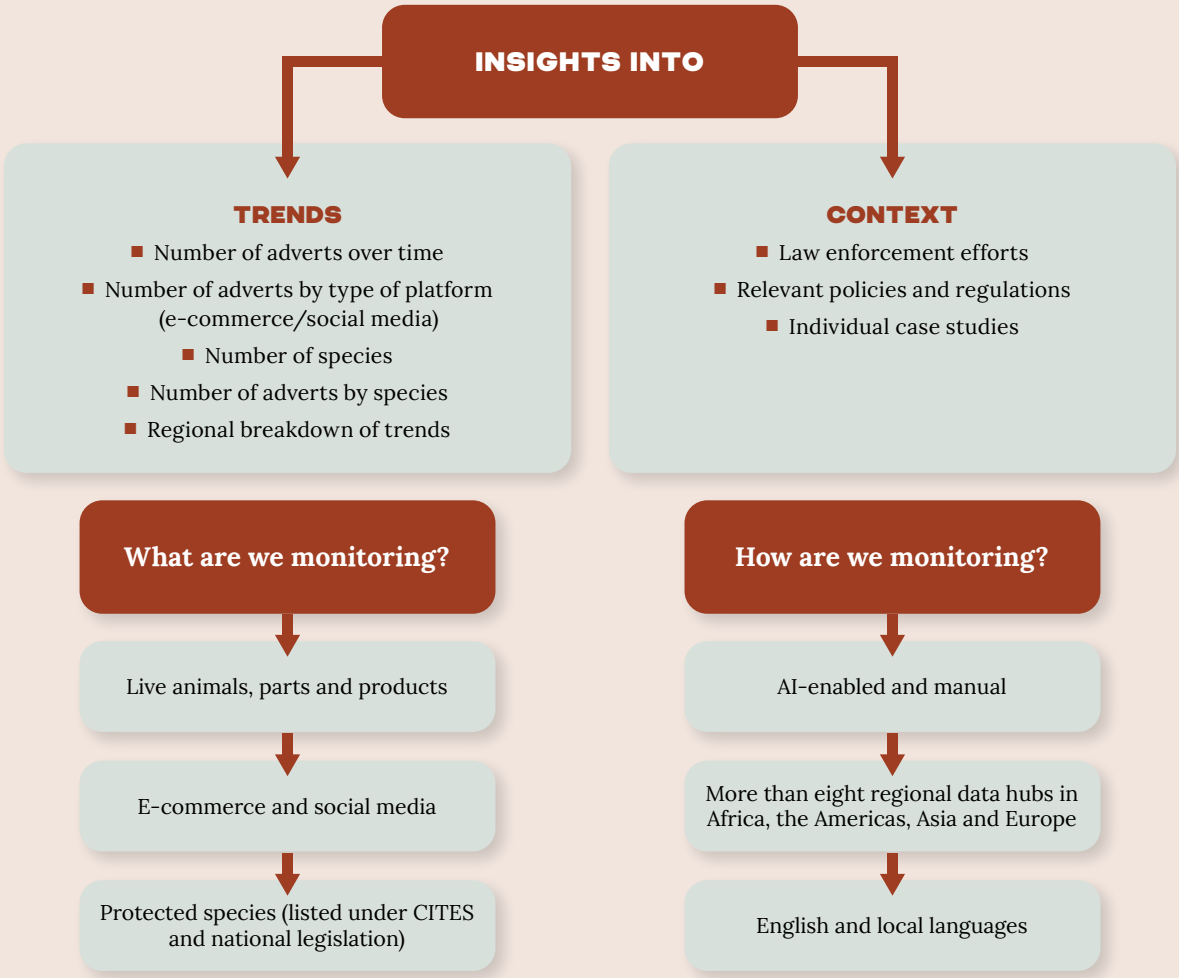

FIGURE 1 Global Trend Reports – expected insights and trends.

involved in this trade. Consistent monitoring may help to detect emerging trends and shifts in IWT, allowing for timely responses to new threats and challenges.

This is the first in a series of Global Trend Reports, which will be published during the three-year ECO-SOLVE project. Two or three of these reports will be published every year, to highlight important trends in online IWT and to contextualize these trends.

Drawing on findings generated by the Global Monitoring System – a network of AI enabled 'data hubs' in key countries, which monitor online IWT – each Global Trend Report will showcase the latest trends in statistical data, specifically the number of adverts found, the numbers and types of species advertised and the number of platforms that host these adverts. Diving deeper into individual topics, these reports will offer regional breakdowns and include sections that contextualize and analyze findings, while also investigating changes in regulations and their effects on online IWT as well as trends in law enforcement. The reports will also discuss case studies of online IWT.

This first report will set the stage for reports to come. It will review past trends in efforts to monitor the online IWT, trends in regulation and other government policies towards IWT, and the evolving role of civil society and law enforcement in responding to the phenomenon.

MONITORING EFFORTS

The IWT is a multi-billion dollar industry, in which criminal networks leverage new technologies to exploit natural resources for financial gain.[7] As digital technologies have advanced, wildlife traffickers have capitalized on the anonymity and convenience afforded by online platforms and cryptographic payment systems to conduct their illicit activities discreetly. Increasing and sustained demand for exotic pets, traditional medicines and luxury goods made from wildlife species, sometimes exacerbated by social media influencers, have further fuelled the growth of this scourge.[8]

Since IWT has developed a significant online presence – particularly in the retail market and marketing aspects of trade chains – there has been significant difficulty in evaluating the extent of the issue, its dynamics and its impact. Unlike traditional forms of IWT, which may leave physical traces or involve in-person transactions, online activities can be more elusive and harder to track. Additionally, the dynamic nature of online platforms and the continually evolving tactics of wildlife traffickers further complicate efforts to monitor and combat IWT effectively. This lack of comprehensive understanding hinders the ability of law enforcement and policymakers to develop targeted strategies and allocate resources efficiently to curb this issue.

Civil society organizations (CSOs) and academia have emerged as crucial players in addressing information gaps surrounding online IWT by acting as vigilant watchdogs. Through their research initiatives, monitoring efforts and technological expertise, CSOs and academic institutions have contributed to shedding light on the scale, dynamics and impacts of this illicit activity. However, much of the research conducted up to now has been short term, and studies like these do not necessarily provide a comprehensive global perspective. Therefore, the Global Initiative Against Transnational Organized Crime (GI-TOC) embarked on a targeted study aimed at summarizing and assessing the extent of research on the topic, and collating an overview of global trends in online IWT.

To accomplish this, the GI-TOC conducted a systematic literature review of publications released between 2017 and 2024. This review delves into works concerning online IWT monitoring activities, utilizing either manual or machine-learning techniques to detect online listings of IWT. Selection criteria for inclusion prioritized English-language publications containing keywords associated with IWT, a clearly stated methodology and a defined time period for monitoring. Moreover, publications focusing on live traded species like birds and reptiles were chosen given their high international demand as pets, while those centred on ivory, rhino horn and pangolin were selected due to the high monetary value of these items and their connection to criminalized trade. This approach of limiting research to high-value species enables researchers to allocate resources more effectively, concentrating efforts on critical areas of concern.

Many of the studies reviewed by GI-TOC combined a focus on protected species with a clear link to illegal trade, as well as endangered species that were not regulated or poorly regulated in the jurisdiction(s) under study, which raised serious questions about illegal transactions preceding their sale online, or about the inadequacy of online regulation and enforcement. All of these categories of suspicious and problematic trade were included in the count.

The findings revealed that for the seven years of the review, five CSOs and nine academic institutions conducted monitoring efforts resulting in 33 studies with the identification of a total of 103 491 suspicious adverts selling endangered species, averaging 14 784 per year, or approximately 41 suspicious adverts per day. This, however, amounts only to a very partial picture.

The count is likely to be an underestimate due to several factors, putting aside even the limited species coverage of the study. First, the monitoring efforts identified in this study did not cover all platforms or regions where such adverts are posted, leading to an incomplete global picture. Second, duration of monitoring varied significantly across studies and more frequent monitoring efforts might have provided a greater number of detections.[9]

Furthermore, the results obtained revealed that during the study period, monitoring efforts for the targeted species primarily targeted birds (77 377 adverts) and reptiles (22 355 adverts), as illustrated in Figure 2. However, between 2017 and 2018, the focus shifted slightly also towards

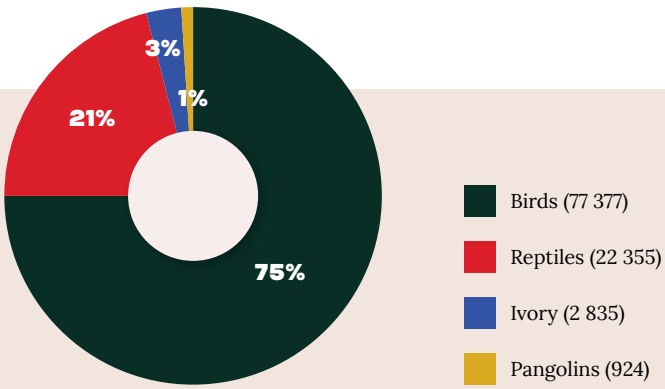

FIGURE 2 Distribution of online advertisements by species.

NOTE: The pie chart is based on the author's own calculations, covering all 33 studies. If we exclude the detections from the study by A Toomes et al (A snapshot of online wildlife trade: Australian e-commerce trade of native and non-native pets), which accounts for 75% of the total number of illegal adverts, the results would still show birds (43%) and reptiles (42%) as the primary targets, followed by ivory (11%) and pangolin (4%).

monitoring online trade in ivory. This shift was influenced by the enduring status of these products as highly sought-after wildlife items, renowned for their significant commercial value and conservation significance. This period coincided with heightened global attention and conservation efforts directed towards combating the poaching and trafficking of elephants.

The bias towards monitoring birds and reptiles can be attributed to several factors, including heightened awareness of the detrimental impacts of the exotic pet trade on biodiversity and changes in consumer preferences and market dynamics. Birds and reptiles are often targeted for the pet trade due to their aesthetic appeal and perceived exoticism, resulting in a surge in online adverts offering these species for sale.[10] Additionally, regulatory measures and enforcement efforts targeting the trade in ivory and rhino horn may have contributed to a decline in online trafficking activity for these products, prompting traffickers to shift their attention towards other wildlife commodities perceived as lower risk. It may also be the case that the internet is a key accelerant of the exotic pet trade, through its ability to cohere and connect distributed sub-cultures (such as exotic pet buyers and sellers) in online forums and groups.

The species focus of this study, while beneficial to highlighting key areas of online trade and commodities linked to serious and organized crime, excluded some potentially important groups of animals. While ivory, birds and reptiles maintain their status as high-priority targets in online surveillance efforts,[11] media reports suggest that the real scope of online IWT may be significantly broader, underscoring the urgent need for more comprehensive monitoring efforts. For example, there has been a growing recognition of the need to include amphibians and marine species, such as sharks and rays, as key species in IWT monitoring.[12]

Amphibians are among the most threatened vertebrate groups globally, facing significant population declines due to habitat loss, pollution and disease, among other factors. Monitoring their trade online is crucial for understanding and mitigating threats to their survival.[13] Sharks and rays are highly vulnerable to overexploitation due to their slow growth rates, low reproductive rates, and specific habitat requirements. Illegal trade in shark fins and ray gill plates contributes significantly to population declines and disrupts marine ecosystems.[14]

Concerns have also been raised about monitoring of flora species, particularly cacti and orchids, and those species listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) appendices II and III, such as cycads to didiereas, that are increasingly sought after for ornamental, medicinal and pharmaceutical purposes.

THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

CITES is an international agreement that 'aims to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species'.[15] Over time, 183 states and one multilateral body (the European Union) have become party to the agreement, which came into force in 1975. Through a system of permits and certificates, all cross-border trade of the 40 900 species included under the convention must be authorized, with varying degrees of regulatory protection. Signatories to the CITES agreement are obliged to incorporate its provisions in national legislation, including through regulations. They are also required to enforce the agreement.

Aside from insights into the species focus of market monitoring studies, the GI-TOC review also revealed a somewhat inconsistent distribution of monitoring efforts across different geographic regions throughout the years under examination. Asia consistently emerged as the region with the highest number of studies between 2017 and the beginning of 2023, illustrated in Figure 3. However, studies centred on Asia peaked in 2020, when seven were undertaken in the region, but sharply declined to just two in 2022, and no new studies have been published since.

Europe accounted for the second highest number of studies overall, albeit far behind Asia, with a total of six studies. Africa trailed behind with five studies, while the Americas and Australia had a disparity of one study, though the most recent surveillance work was published in 2020 for America and 2023 for Australia. However, many studies were published one or two years after the monitoring efforts were conducted. This implies that additional data may have been collected during the period analyzed by GI-TOC, yet the results of such monitoring work may not have been published yet.

Asia and Africa often stand out as key regions in need of intensified efforts to combat IWT.[16] According to the World Wide Fund for Nature (WWF), South East Asia boasts particularly high levels of biodiversity, with estimates suggesting that it is home to up to 20% of the world's known plant and animal species. Africa, similarly, contains vast tracts of biodiverse habitats, including tropical rainforests and savannas, harbouring a wealth of wildlife species.[17] The significance of these regions in IWT is underscored by trafficking statistics. South East Asia is a hotspot for the illegal trade in species such as pangolins, with the Wildlife Justice Commission reporting over 26 000 pangolin seizures in the region between 2016 and 2019.[18] In Africa, in recent years, African elephants have been relentlessly targeted for their ivory tusks, which are highly sought after in illegal markets, particularly in Asia. According to a CITES report, between 2010 and 2020, Africa lost an estimated 144 000 elephants to poaching,[19] primarily driven by demand for ivory in countries including China and Vietnam.[20]

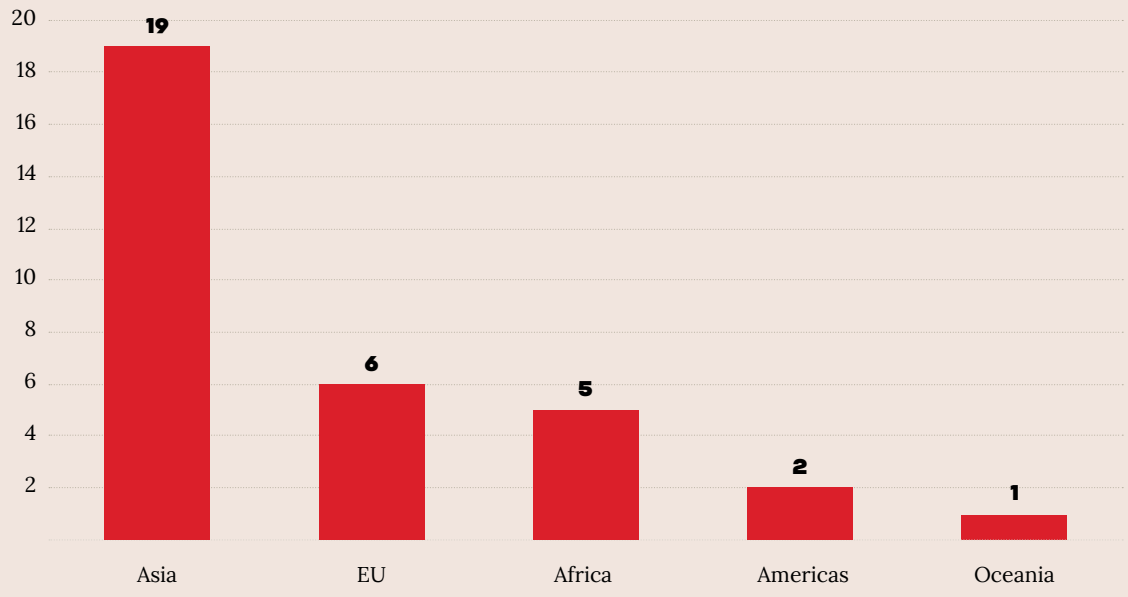

FIGURE 3 Number of monitoring studies of online IWT, by region.

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Monitoring gaps are even bigger in South America. This region is often overlooked and requires more attention. To provide context, a study published in 2019 estimated that South America accounted for approximately 30% of global wildlife trafficking seizures.[21]

The GI-TOC study also noted the extent to which online IWT monitoring efforts employ diverse methods to observe the same phenomena. Indeed, while the present study aimed to collate all available data to provide a picture of the trends of these illicit wildlife flows, the main difficulty encountered in this analysis was the absence of a standardized methodology for online surveillance, data collection and analysis. Consolidating data from diverse sources was frequently impractical; numerous publications lacked clearly defined protocols and had to be omitted from the analysis. Variations in surveillance methods (e.g. manual monitoring or AI assisted web scraping), data collection approaches (e.g. weekly or monthly monitoring), reporting mechanisms (e.g. infographics or data reports) and the types of information gathered across different monitoring initiatives also generated challenges.

The value of this exercise has, however, been to provide a limited, preliminary picture of the major trends in online IWT markets over this period; it has also provided a useful starting point to assess the state of global monitoring exercises and the gaps that should be addressed by future work.

REGULATING ONLINE SPACES

In contrast to other illegal activities – such as the drugs or illegal arms trade, which are primarily found on the dark web in order to evade law enforcement – the illegal trade in wildlife is largely found on the 'open' or 'deep' web, on ordinary e-commerce and social media sites, a symptom of the lack of regulation of the problem online.[22] For at least the last decade, it has been well established that a key enabling factor for this open online IWT is weak or fragmented legislation of online trade. But in recent years some countries and regions have responded to the threat of online IWT by developing stricter regulations to curtail the trade.

The online wildlife trade suffers from both the low political priority placed on it and the poor wider regulation of cyber platforms, with the latter having facilitated wide-ranging criminal activity. Legislators have struggled to come to terms with the broad range of problems posed by the exponential growth in the use of social media and e-commerce platforms. Regulation of platforms to forestall all online harms has been poor, and no global framework to tackle illegal cyber-enabled trade exists. Debates centring on the difficulty of regulating online platforms to tackle harms inflicted on minors and the online promotion of terrorism and hate crimes have understandably dominated the conversation. However, the wildlife trade has been a long-standing online harm.

The world's biggest powers have handled this very differently. China, home to some of the biggest tech firms, has banned adverts of IWT online. Yet the United States, another hub for big tech, has refrained from imposing restrictive and regulatory measures on digital companies.[23] However, from a global perspective, the regulatory response has broadly consisted of three main phases, with the most recent signalling a move towards tougher regulation of online platforms, albeit only in some jurisdictions. The study will consider what these moves mean for calls to curb the use of online platforms for IWT.

Phase 1: The rise in online trading

In the initial years of the 2000s a shift became apparent. With the arrival of the internet, and the increasing use of e-commerce platforms and social media, wildlife trade started to appear online, though initially at low volumes and which were far eclipsed by the trade in physical markets. Publications by TRAFFIC (2004) and IFAW (2005) first noted this shift, and their continued monitoring helped to keep it visible.[24]

Anecdotal evidence suggests that during the 2000s and 2010s, increasing enforcement attention and government policies focused on physical markets, particularly in Asia, either on the basis of concerns about zoonosis or illegal trade; many of these key physical sites diminished in importance for the illegal trade or shut down.[25] This may have displaced activity to the online realm, where there was lower enforcement, in addition to other benefits for traders (such as broader geographic reach and the free marketing tools of social media).[26]

And while the debate on the topic intensified, and an increasing number of studies from the early 2000s pointed towards an alarming increase in online IWT across the world, the debate did not – at least for a considerable period of lost time – translate into discussions around regulating online arenas accordingly. In fact, it was not until 2016 that CITES – the primary multilateral body responsible for tackling IWT, as explained above – officially called upon member states to look into online IWT and to develop adequate responses.

Phase 2: Self-regulation by internet platforms

With increasing recognition of the sheer scale of illegal trade conducted online, and harmful effects of the internet in general, the conversation finally took a turn towards greater regulation. However, while some countries addressed online IWT in national legislation, regulations focused on the role of those advertising (the sellers) and did not consider the role of facilitators, notably the online platforms. In the last fifteen years, the Czech Republic, France, the United Kingdom, Portugal and China have added clauses to their wildlife legislation pertaining specifically to online activity. The Czech Republic and the United Kingdom require online traders to provide evidence of the legality of their transactions, and Portugal and China banned online trade in illegal wildlife.[27]

Additionally, while CITES has put measures in place through the adoption of various 'decisions', encouraging parties to tackle wildlife cybercrime through changes in legislation, best practice models and enforcement guidelines, these directives are non-binding. It has therefore been argued that multilateral processes have failed to trigger more effective responses on a larger scale.[28]

In 2018, the Coalition to End Wildlife Trade Online was formed by major conservation organizations and the biggest e-commerce, technology and social media companies. Its key aims have been to monitor online IWT, and to facilitate and encourage self-regulation by online platforms. The Coalition has published the results of private sector initiatives to curb the use of their platforms for IWT – such as the removal of more than 11 million adverts between 2018 and 2021[29] – but an increasing number of organizations became critical of the approach.[30]

First, the Coalition was criticized for a lack of transparency. While it published regular progress updates about the number of advertisements deleted or blocked and number of 'keywords shared to train AI', key details about the policies and practices used to arrive at headline figures were withheld. The published figures amounted to an aggregate for all Coalition members, but it remained unclear how individual platforms performed, preventing these entities from being held publicly accountable. It also remained unclear how content moderation was performed, what qualified as an advert to be deleted, what proportion of flagged adverts were deleted by platforms, and how many content moderators were working on online IWT specifically. Additionally, there was no transparency about algorithms used by Coalition members to detect illegal content.[31]

Second, only some of the online arenas that pledged to curb online IWT on their platforms took active and effective measures to do so.[32] Third, the deletion of adverts is an insufficient – and at times arguably even counter-productive – deterrent. Sellers move on to alternative platforms and through the destruction of leads and evidence escape law enforcement action.[33] This helps to explain why much of the trade in illegal wildlife remains on the open web.

A pledge by the Coalition to reduce online IWT by 80% by 2020 was arguably not just an overly ambitious and at the same time ambiguous goal, since there was no baseline figure, but it was also predicated on the assumption that online platforms would self-regulate. There were no real tools to monitor whether Coalition members were implementing effective measures, due to the aforementioned lack of transparency, and there were also no means to ensure compliance by Coalition members, due to an absence of punitive measures. The Coalition, instead, was based on partnership and a mutual trust that all members would work towards the same goals.

Phase 3: Government regulation of internet platforms

Realizing that self-regulation of online platforms is not a panacea, calls by non-governmental organizations (NGOs) and civil society pressure groups for an alternative, more effective and more sustainable solution grew louder, especially in the European Union, the United Kingdom and the United States. Instead of relying on self-regulation, governments would enforce regulations on online platforms. And alongside such regulations, greater cooperation between online platforms, law enforcement, civil society and the general public would be fostered.[34] Since there is no global agreement on how to regulate the internet, mirrored by the ongoing and complicated negotiations in the context of the UN 'cybercrime treaty' – and amid major disagreements among member states – national governments have not been able to follow a model framework. This has resulted in countries pursuing divergent unilateral approaches.[35]

REGULATING ONLINE IWT: A FRAMEWORK

Debates around regulating online IWT, and illegal online activities more generally, have prompted various questions and elements that provide a potential starting point for what such a model framework should entail. This is illustrated below.[36]

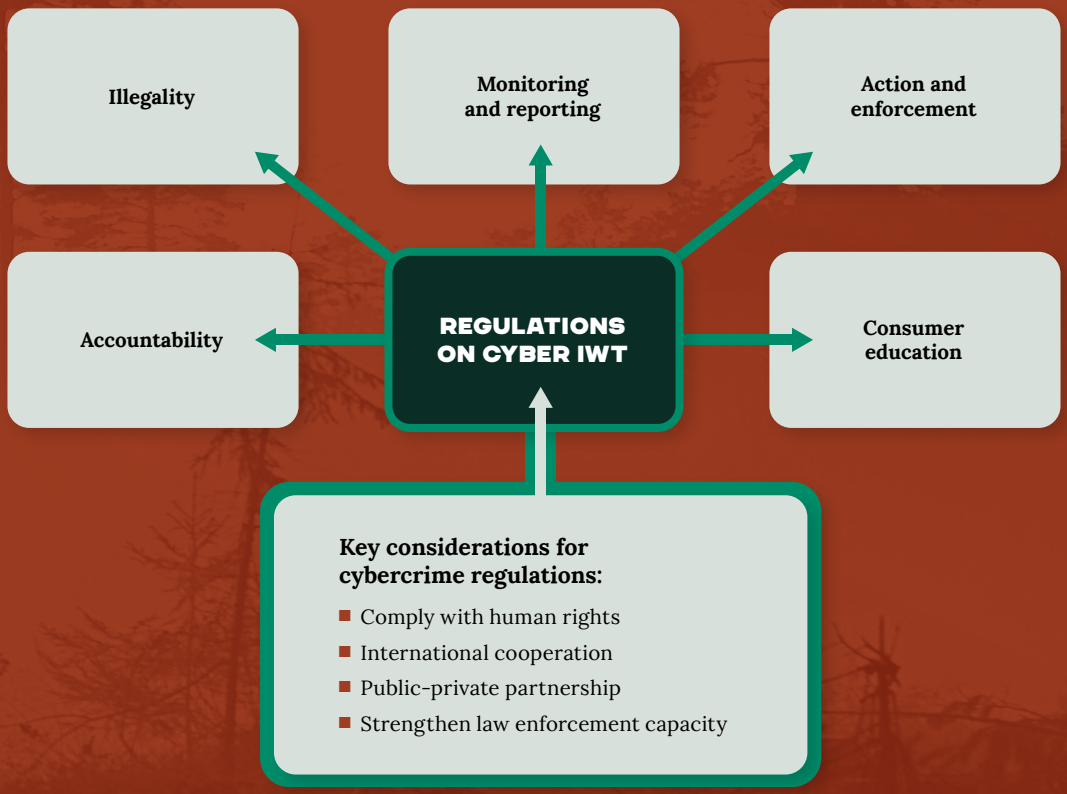

FIGURE 4 What factors do regulations need to consider to be effective?

The following list contains the key questions that regulators will need to consider, as well as some of the most common proposals from civil society experts.

Accountability: Are online companies responsible for activities on their platforms?

- Accountability of tech firms for activities that take place on their online platforms, including illegal activities.
- Sellers are responsible for posting illegal content.

Illegality: How can the impact of regulations be maximized to protect endangered wildlife?

- Explicitly include illegal wildlife trade as an illegal activity.
- Address difficulty of monitoring illegality, and define how this can be done – e.g. require CITES documentation to sell protected species online and place the burden of proof on the seller.

Monitoring and reporting: Is it efficient if only citizens monitor and report on illegal wildlife trade online?

- Citizen reporting – e.g. by reporting suspicious posts online to platforms.
- Platforms actively monitoring.
- Civil society or law enforcement monitoring.

Action and enforcement: How far should the reach and responsibilities of law enforcement go?

- Platforms take action – either inform law enforcement or take down advert.
- Platforms are fined if they do not take action.

Consumer education: Who is responsible for consumer awareness?

- Responsibility with platforms – e.g. online pop-ups with regulations.

Regulating online IWT: National approaches

In the United States, issues around stricter regulations of online content moderation and liability of online platforms and tech firms have been discussed repeatedly in Congress over the years, including earlier this year. Concerns around online harms, especially of children, and the role of online platforms in perpetuating such harms, also escalated to a high profile hearing in the Senate earlier this year.[37] However, in contrast to other countries and regions, such as the European Union, the United Kingdom, and above all China, where government has cracked down on tech giants in recent years, these debates have not – so far – resulted in stricter regulations and greater liability for online platforms.

On 4 October 2022, the European Council adopted the Digital Services Act (DSA), innovative legislation that defines responsibilities for online activities, including online illegal trade. The DSA aims to tackle illegal content and misinformation online by making online platforms, including social media and marketplaces, accountable for the content posted on their platforms – at least once they have been made aware of such content.[38] All online platforms operating in the EU are required to comply with the DSA.

The DSA was welcomed by conservation NGOs, especially for its explicit inclusion of illegal trade in animals in the list of illegal content.[39] At the same time, the Act was criticized for leaving loopholes, which reduce its effectiveness. Crucially, the Act reserves the strictest rules for very large online platforms (VLOPs) – i.e. those with more than 45 million active users in the EU – and when it was first enacted in August 2023, only applied to these.[40] Much illegal trade, especially IWT, is conducted on medium-sized or small platforms. After a phased roll-out, the DSA was enacted in full on 17 February 2024, and applies to all platforms, to varying degrees, except for very small ones, though the strictest rules continue to only apply to VLOPs. [41]

In October 2023, the United Kingdom passed the Online Safety Act, which seeks to protect children from harmful content, and to limit people's exposure to illegal content.[42] The Online Safety Act determines that online platforms can be held liable for content posted on their sites, and obliges them to have 'systems in place to manage harmful content on their sites, including illegal content'.[43] Firms that fail to comply risk fines of up to 10% of their annual global turnover. Conservation NGOs welcomed the inclusion of animal torture under harmful content, but lamented that IWT was not even explicitly mentioned – again, confirming IWT as a much lower political and law enforcement priority than other illegal markets.[44]

In many other parts of the world, calls for greater government regulation continue. In the United States – home to most of the giant tech companies, such as Facebook, X, Instagram and others – the Alliance to Counter Crime Online (ACCO) has been calling on the government to reform Section 230 of the Communications Decency Act of 1996 (CDA230) in order to hold tech firms accountable and to curb illegal trade and hate crimes online.[45] According to ACCO, the CDA230 fails in its original purpose of 'shared responsibility between tech platforms, law enforcement, and organizations like ACCO', because of an overreliance on self-regulation by online platforms.[46] It has failed to ensure that tech firms are held accountable if they do not follow through. CDA230 must be modified, so it is argued, by 'creating legal and financial incentives' to ensure that tech firms adhere to regulations around content moderation on their sites, especially illegal content.[47]

In the United States, lobbying groups that oppose stricter regulations point to the need to protect the fundamental right of 'free speech'. The debate has become particularly acute with the takeover of Twitter (now X) by Elon Musk in 2022 and his firing of staff, especially teams that had focused on content moderation, handling of misinformation and state media. This process has ostensibly been driven by his desire to turn the platform into a 'bastion of free speech'.[48] In a similar vein, Musk also closed Twitter's office in Brussels at the end of 2022, a move that has been linked to the adoption of the DSA, which implies tighter regulations and greater liability for online platforms, especially regarding content moderation.[49]

In the last two years, increasing evidence has come to light that Twitter/X has failed to tackle child sexual abuse material, hate speech and fake news. This has once again invigorated the debate and calls in the United States for stricter government regulation of big tech companies, evidenced by the high profile Senate hearing in February this year.[50] While Twitter/X has never really been a significant platform for IWT, the company's moves under Musk may prove a bellwether for a turn towards a more hostile attitude among big tech companies to assuming content moderation responsibilities and other costs associated with self-regulation.

The reluctance of the US government to impose regulatory restrictions on tech companies stands in stark contrast to a crackdown on big tech companies by the Chinese government in 2020, when it restricted big tech firms due to concerns that they were becoming too large and powerful, by launching antitrust investigations and imposing fines for monopolistic practices.[51]

Given the relative newness of the regulations in the EU and the UK, any success in curbing IWT online is yet to be seen, and much of that success depends on implementation. Drafting regulations to tackle IWT online is always a difficult and complex task, and successful and effective implementation of such regulations is even more complex.

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LAW ENFORCEMENT RESPONSES AND CIVIL SOCIETY IMPLICATIONS

For many years, it was lamented, and the GI-TOC was no exception, that wildlife 'criminals were online, but the police, largely, were not'.[52] NGOs were often the main entities monitoring and reporting IWT online, driving both private sector action and law enforcement engagement when cases surfaced online. But this picture has changed significantly, and one of the most prominent trends in the response to online wildlife trafficking in recent years has been the greater engagement of law enforcement in policing cyberspace.

Online markets have been important sites for starting investigations into wildlife crimes for more than 20 years, but law enforcement was slow to engage in this arena. There are many reasons for this, ranging from the complexity of tracking and identifying illegal wildlife advertisements online, to a complex legal framework pertaining both to the wildlife trade and to cyberspace, and lack of specialized training and resources within law enforcement agencies. These factors have combined with the lower priority typically assigned to wildlife crime compared to other online crimes, such as the dissemination and sale of child sexual abuse material.

This mirrors a broader struggle to equip law enforcement with the correct regulatory powers, training, mandate and resources to deal with cybercrime on a larger scale. Over the past 15 years, cybercrime has grown significantly. The FBI's Internet Crime Complaint Center, for example, recorded more than 800 000 complaints entailing over US$10 billion in losses to US citizens in 2022 – a doubling of the number of complaints since 2018, and almost quadruple the monetary value lost in 2018. But while a huge number of people are affected by cybercrime, regulatory adaptation to this threat has been slow and difficult – not just in the US, but across the world.[53]

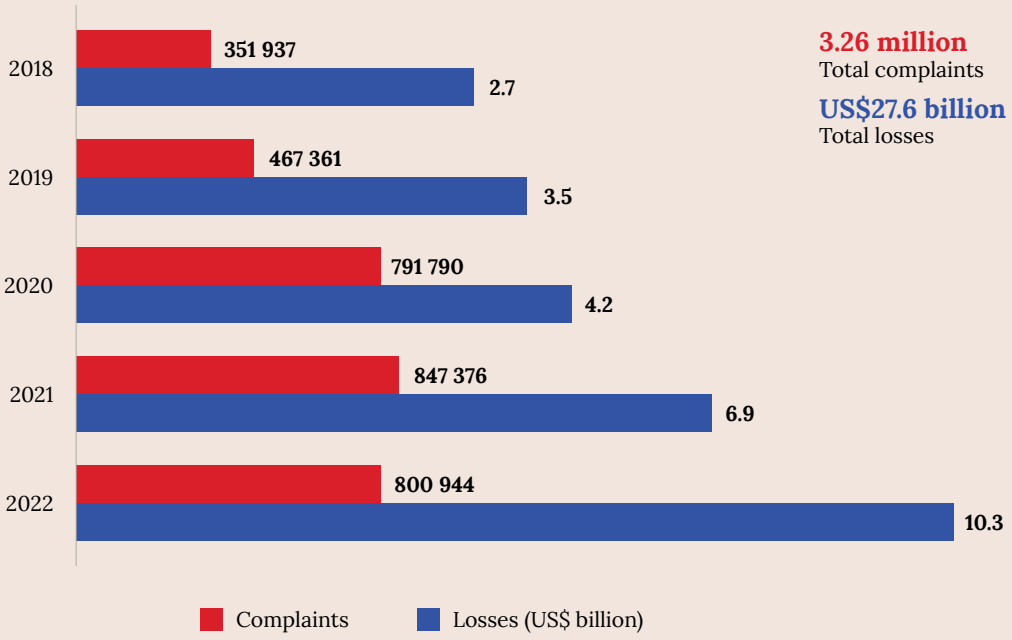

FIGURE 5 Complaints about internet-based crime and value of losses entailed in the US between 2018 and 2022.

SOURCE: FBI Internet Crime Complaint Centre, https://www.ic3.gov/

The turn to online policing

Around a decade ago, state entities began to launch limited-period online operations, effectively intensive 'cyber patrols'. These initiatives have remained a popular enforcement strategy. In 2013, the U.S. Fish and Wildlife Service's Operation Wild Web led to formal charges brought against 145 suspects.[54] In 2015, the UK government launched Operation Cobra 3, which focused on endangered species and led to over 300 seizures. The first joint international operation may have been INTERPOL's Project WEB (2013), which focused on the ivory trade in nine European countries, and cyber patrolling has become a feature of INTERPOL's annual Operation Thunder, an initiative against environmental crime that began in 2017.

In recent years, more and more law enforcement cybercrime programmes have included a mandate for policing the wildlife trade. However, this is considered by law enforcement experts to have a considerable downside – cybercrime units typically deal with multiple crimes including cyber-attacks, child sexual abuse material and counterfeit goods. Given the severity of the first two of these categories of crime, this runs the risk that the existing tendency towards deprioritizing wildlife crime is replicated within the cybercrime unit. On the other hand, a trend towards equipping wildlife officers with cyber skills – in units with a mandate and dedicated focus on environmental crimes – is less prevalent but still noticeable in several countries across the world.

In Asia, Indonesia was an early mover on this front, with the Directorate General of Law Enforcement of the Ministry of Environment and Forestry (known as Gakkum KLHK) establishing a cyber patrol team in 2017, which was tasked with overseeing and monitoring wildlife trade on online platforms with the aim of shutting down any illegal trade. The team conducts

surveillance of online wildlife traders, seeks to trace protected wildlife back to individual traders and collaborates with the Indonesian E-Commerce Association. Nonetheless, a large and damaging online market persists in the archipelago, particularly for birds. Indonesia's market is also highly concentrated in social media spaces.[55]

In Latin America, since around 2020 Colombia has tasked some police officers solely with internet surveillance and investigation of leads from advertisements placed on Facebook and other platforms – part of a broader push to tackle IWT in the country.[56] Likewise, the Brazilian federal police, after several years of developing protocols and expertise during various discrete operations and at subnational levels, have recently dedicated more capacity to online surveillance, also as part of a broader push to deal with IWT writ large.[57]

In Europe, countries including Spain and France have dedicated law enforcement units targeting online IWT. In Spain, this sits within the Nature Protection Service (known more commonly as SEPRONA). Initially designed as a rural unit within the Guardia Civil, SEPRONA has grown significantly over time, expanding its mandate to a wide range of activities, from animal welfare and trafficking in protected species to historic heritage protection, waste and pollution management, and forest fire prevention. In France, the Gendarmerie has a specialized unit focused on monitoring and investigating illicit activities related to the trafficking of wildlife species.

Several countries have also tasked law enforcement to look into other environmental crime-linked commodities online, such as the trade in fluorinated gases and other pollutants. Additionally, the cross-continental law enforcement coordination platform EMPACT has been training law enforcement officers from across Europe in cyber skills to combat IWT since 2016.

Implications

NGOs have not stopped operating against wildlife trade online, and neither are police active everywhere – nor, as the Indonesian example shows, are their efforts necessarily sufficient to stop trade even where they do have cyber capacities and mandates. There is still scope for NGOs to supplement or support law enforcement efforts in different forms of partnership.

For example, in Vietnam, while it is not clear that the police have dedicated capacity to investigate online wildlife marketing, we know the police often take up cases where evidence originates online through the activities of the NGO Education for Nature. This organization monitors social media and e-commerce, builds case reports and discloses these reports to officials – often following up over months or years. Education for Nature has itself noticed the increasing importance of online monitoring to counter wildlife trafficking; in 2022, the percentage of crimes involving online violations jumped to 49% (1 686) of all cases recorded by this NGO, up from a total of 284 and 21% of all cases in 2015.[58]

For NGOs, this shift should also raise questions. Won't their activities duplicate or, worse, interfere or conflict with law enforcement? Without coordination, this is a risk. Online monitoring by NGOs frequently seeks just to have adverts removed and the traders suspended. However, law enforcement officials have expressed concerns and frustration about the deletion of adverts or suspension of traders at the behest of NGOs in cases where they may be actively investigating or collecting evidence.[59] Similarly, the covert presence of NGOs on social media platforms posing as traders and buyers (in order to gather market information and identify important traders for their own private investigations) may skew the intelligence picture of

online markets and waste law enforcement efforts on responding to false positives. Ultimately, coordination will be needed to align, or at least deconflict, different efforts to end online IWT.

There are also other constructive roles that NGOs can and do play in this space, such as lending expert opinion on species, triaging information from large and vibrant markets to highlight the most criminal elements that need pursuing, highlighting trends in the commodities of most concern (particularly through linking global, local, offline and online trends) and providing specialized training drawing on species or wildlife trade expertise. NGOs also retain a role outside law enforcement activity in advocating for better policy, smarter regulation, educating consumers and engaging the private sector.

However, the most appropriate role of NGOs in this picture is perhaps a minor question. More acute lines of enquiry are needed to focus on the bigger problem of countering cybercrime. Questions need to be asked like, how will we measure the effectiveness of law enforcement in this area? Are the current legal frameworks adequate? Where does the line lie between the measures that the private sector should take and those that the state should shoulder? These and many other questions are topics we plan to explore through the forthcoming Global Trend Reports.

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