

WORKSHOP

Requested by the DEVE committee



# Workshop

## Environmental criminality in developing countries



**Authors:**

Ragnhild SOLLUND, Tanya WYATT

**European Parliament coordinator:**

Policy Department for External Relations  
Directorate General for External Policies of the Union  
PE 702.565 - July 2022

EN

## WORKSHOP

# Environmental criminality in developing countries

### ABSTRACT

The workshop explored the different ways to tackle environmental criminality in developing countries. Bringing together a wide range of international experts as well as local representatives from developing countries, the workshop sought to identify existing gaps in policy and legal responses, and generate debates about how the identified gaps can be filled. The first panel focused on the prevention and the fight against environmental crimes in developing countries. In doing so, it drew on lessons learned from different developing countries, including best practices and entry points for addressing environmental crimes. The second panel concentrated on the new EC proposal for a Directive on the protection of the environment through criminal law. It discussed possible ways of reinforcing the external dimension of this Directive with the objective of making it more suitable and effective to prevent, prosecute and punish environmental crimes committed in developing countries. The second panel also discussed the pertinence of including new categories of environmental crimes in the Directive and in particular the 'ecocide' crime. It further addressed the corporate criminal liability for crimes committed outside Europe by European companies and the need to extend the criminal territorial jurisdiction to prosecute these crimes. Other aspects highlighted included ways to reinforce the human rights perspective in the Directive, for instance by revisiting the concept of victims and highlighting the lack of collective action for victims to lodge complaints or their right to compensation. This report brings together the in-depth analysis prepared by experts for the workshop and a summary of the debate with Members, representatives of EU and international organisations, legal specialists, NGOs and environmental human rights defenders.

## **AUTHORS**

- In-depth analysis on 'Environmental Criminality in Developing Countries':
  - Ragnhild SOLLUND, Professor, University of Oslo, Norway
  - Tanya WYATT, Professor, Northumbria University, United Kingdom
- Workshop proceedings:
  - Ilaria GIUSTACCHINI, Project Officer, Trans European Policy Studies Association (TEPSA)

## **PROJECT COORDINATOR (CONTRACTOR)**

- Trans European Policy Studies Association (TEPSA)

This study was originally requested by the European Parliament's Committee on Development (DEVE)

The content of this document is the sole responsibility of the authors, and any opinions expressed herein do not necessarily represent the official position of the European Parliament.

## **CONTACTS IN THE EUROPEAN PARLIAMENT**

Coordination: Amelia PADURARIU, Policy Department for External Relations

Editorial assistant: Daniela ADORNA DIAZ

Feedback is welcome. Please write to [amelia.padurariu@europarl.europa.eu](mailto:amelia.padurariu@europarl.europa.eu)

To obtain copies, please send a request to [poldep-expo@europarl.europa.eu](mailto:poldep-expo@europarl.europa.eu)

## **VERSION**

English-language manuscript completed on 07 July 2022

## **COPYRIGHT**

Brussels © European Union, 2022

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

©Cover image used under licence from Adobe Stock.

This paper will be published on the European Parliament's online database, 'Think Tank'

## Table of contents

### I. Working paper

In-depth analysis on Environmental criminality in developing countries

### II. Workshop proceedings

## **I. Working paper**

## IN-DEPTH ANALYSIS

# Environmental criminality in developing countries

### ABSTRACT

Environmental crime harms people, other species and the planet. It is one of the most prevalent and profitable forms of crime, yet remains overlooked, as is the role of corporations in committing these crimes. This mixed-method in-depth analysis constituted a literature and policy review, interviews with experts and European Union delegates to developing countries, and the previous field research of the authors. The analysis explores the types of environmental criminality and what is known about environmental crimes in the developing world as well as how they are being prevented and responded to. It presents deeper investigation of four developing countries—Colombia, Indonesia, Ghana, and the Democratic Republic of Congo — focusing on wildlife, forest and fishery crimes, pollution and waste. These case studies look at lessons learned from these countries' responses to environmental crimes. A number of recommendations are made focusing on how to improve policy frameworks, legislative frameworks and implementation (with emphasis on corporate governance and due diligence), prevention, enforcement, as well as cooperation and communication. Overall, more research is needed to better understand the nature and scope of environmental crime, to gain evidence about effective prevention strategies, and to gather more information about how to reduce reoffending, particularly by corporations.

### Authors

Ragnhild SOLLUND, Tanya WYATT

July 2022

## Table of contents

1	Introduction	1
1.1	The different types of environmental criminality in developing countries and its various impacts	1
1.2	Wildlife, forestry and fishery crime	6
1.3	Illegal mining	9
1.4	Waste and pollution	10
2	Shortcomings in developing countries as regards environmental rule of law	13
2.1	Legislation and its implementation	13
2.2	Information collection, management and use	16
2.3	Financial and human capacity	16
2.4	Enforcement	17
2.5	Corporate governance	19
3	Entry points, best practices and lessons learned to address environmental criminality	21
3.1	Colombia and wildlife crime	21
3.2	Indonesia and forest crime	24
3.3	Ghana and fishery crime and waste	27
3.4	Democratic Republic of Congo: mining and pollution	31
4	Recommendations	34
4.1	Policy Frameworks	34
4.2	Legislative Frameworks and Implementation	35
4.3	Prevention	37
4.4	Enforcement	37
4.5	Cooperation and Communication	39
5	References	41

## List of abbreviations

BAN	Basel Action Network
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEVE	European Parliament Committee on Development
DRC	Democratic Republic of Congo
EFFACE	European Union Action to Fight Environmental Crime
EPR	Extended producer responsibility
EU	European Union
EUROJUST	European Union Agency for Criminal Justice Cooperation
FIDIC	Fundación Instituto de Inmunología de Colombia
FLEGT	Forest Law Enforcement, Governance and Trade Regulations
HRW	Human Rights Watch
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law
INTERPOL	The International Criminal Police Organization
IUU	Illegal, unreported and unregulated
KPK	Indonesia's Anti-Corruption Commission
MoU	Memorandum of Understanding
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PPATK	Financial Transaction Reports and Analysis Centre
REDD+	Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks in Developing Countries
SDG	Sustainable Development Goal
SVLK	Timber Legality Verification System
UK	United Kingdom
UN	United Nations
UNEP	United Nations Environment Program
UNEP-MONUSCO-OSESG	United Nations Environment Program-Mission des Nations Unies en République Démocratique du Congo, or Special Envoy of the Secretary-General for the Great Lakes Region
UNODC	United Nations Office on Drugs and Crime
USA	United States of America
VPA	Voluntary Partnership Agreement





# 1 Introduction

Environmental crimes have become a worldwide phenomenon and are widely recognised as one of the most profitable forms of transnational criminal activity (UNEP 2018). They also have devastating cross-border effects on people, other species and the planet more generally that require collaboration between countries in the Global North and Global South. However, despite the significant negative consequences of environmental crime, there are major gaps in knowledge both at international and European Union (EU) levels on how best to respond. Dr Angela Me, Chief of the Research and Analysis Branch of the United Nations Office on Drugs and Crime (UNODC), stated at the February 2022 [Expert Panels on Crimes that Affect the Environment](#) for the United Nations (UN) Commission on Crime Prevention and Criminal Justice (CCPCJ), that once environmental crime is prioritised, we need to focus on what works, but this is not straightforward because of the lack of evidence. Data remains limited and/or does not underpin understanding (Me, 2022), given the lack of statistics on: environmental-related offences and violations; details of offenders; sanctions given and their effects; and impacts on communities (CCPCJ, 2022). Information on the implementation and enforcement of existing legislation is lacking. There is also a shortage of institutional governance and capacity in the enforcement chain as well as ongoing failure by authorities at national and international levels to cooperate and share information (Me, 2022). Local communities are not included in decision-making processes and the role of corporations in environmental crimes has to some degree been overlooked (Weis, 2019).

Against this backdrop, the European Parliament's Committee on Development (DEVE) commissioned an analysis to explore different ways of addressing environmental criminality specifically in developing countries, firstly by outlining the latest state of knowledge in terms of environmental criminality in developing countries and secondly by discussing possible solutions to address the current situation. Our analysis is thus divided into four parts:

- i. The different types of environmental criminality in developing countries and its various impacts
- ii. Shortcomings in developing countries regarding the environmental rule of law
- iii. Entry points, best practices and lessons learned to address environmental criminality
- iv. Recommendations

## 1.1 The different types of environmental criminality in developing countries and its various impacts

Given that there is no universal definition, it is necessary to set out the parameters for what constitutes environmental crime. In the EU, the Environmental Crime Directive 2008/99 has been relied upon to provide such a definition. Late in 2021, the European Commission put forward a proposal for a new Directive to address environmental criminality, which includes new crimes as well as further definitions of existing violations. Stated briefly, if environmental crimes in the EU cause or are likely to cause death or serious injury to any person, or substantial damage to air, water, soil quality, animals or plants (European Commission, 2021b), (according to the proposal) they will comprise the following activities:

- the discharge, emission or introduction of a quantity of materials or substances or ionising radiation into air, soil or water;
- the placing of certain products on the market in larger quantities;

- the manufacture, placing on the market or use of substances, whether on their own, in mixtures or in articles, including their incorporation into articles that are restricted by other EU legislation;
- the execution of certain projects without a development consent or an assessment with regard to their effects on the environment;
- the collection, transport, recovery or disposal of waste, the supervision of such operations and the aftercare of disposal sites, including action taken as a dealer or a broker (waste management);
- the shipment of waste when such shipment is undertaken in a non-negligible quantity, whether executed in a single shipment or in several shipments which appear to be linked;
- the recycling of ships without following specific regulations;
- the ship-source discharges of listed polluting substances;
- the installation, operation or dismantling of an installation in which a dangerous activity is carried out or in which dangerous substances, preparations or pollutants are stored or used;
- the manufacture, production, processing, handling, use, holding, storage, transport, import, export or disposal of regulated radioactive material;
- the abstraction of surface water or groundwater which causes or is likely to cause substantial damage to the ecological status or potential of surface water bodies or to the quantitative status of groundwater bodies;
- the killing, destruction, taking of, possession, sale or offering for sale of a specimen or specimens of wild fauna or flora species listed in EU Directives, except in negligible quantities;
- trading in wild fauna or flora or parts or derivatives thereof implementing the EU Directive for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- the placing or making available on the Union market of illegally harvested timber or of products thereof, as regulated by EU Directives, except in negligible quantities;
- any conduct which causes the deterioration of a habitat within a protected site, as defined by EU Directives;
- introduction or spread of invasive alien species per EU Directives;
- production, placing on the market, import, export, use, emission or release of ozone depleting substances or of products and equipment containing or relying on such substances;
- production, placing on the market, import, export, use, emission or release of fluorinated greenhouse gases or of products and equipment containing or relying on such substances;

Whereas the proposed EU Directive contains a fairly comprehensive definition of what constitutes environmental crime, it still may not account for all types of environment damage. For instance, the European Union Agency for Criminal Justice Cooperation (Eurojust) (2021: 4) proposes the following categories of environmental crimes:

- 'illegal trading in and poaching of wildlife and plants;
- illegal, unreported and unregulated fishing;
- illegal dumping of, disposal of and trading in waste and chemicals;

- illegal trading in ozone-depleting substances;
- pollution crime;
- illegal mining and trading in precious metals and minerals;
- illegal logging/deforestation and associated timber trading;
- environmental crime associated with illegal construction;
- environmental crime associated with hazardous contamination in food.'

Eurojust's inclusion of illegal mining, construction and food contamination appears to be different from the proposed EU Directive outlined above, which does not include these elements. It is unclear why there are different definitions.

The International Criminal Police Organization (INTERPOL) and the United Nations Environment Program (UNEP) take yet another approach to defining environmental crime. They suggest that 'environmental crime [is] – a collective term describing any illegal activity carried out by a criminal entity to generate profits, which results in harm to our ecosystem, by damaging environmental quality, hastening biodiversity loss, and depleting natural resources' (INTERPOL and UNEP, 2016: 7). These three categories are defined as follows:

- 'Environmental quality: crimes adversely affecting air, land and water typically involve companies and/or organised crime groups which contribute to threatening environmental quality;
- Biodiversity: elephants, rhinoceroses, bears, Asian big cats, antelopes, great apes, pangolins, turtles and tortoises are species which are endangered as a direct result of poaching and trafficking, revealing a well-established criminal supply chain;
- Natural resources: criminal activities associated with and resulting from illegal logging, illegal fishing and illegal mining deplete the planet's essential resources. A variety of players are implicated in these crimes, ranging from those involved in the harvesting or extraction phases, to the international sellers' (INTERPOL and UNEP, 2016: 7).

This conceptualisation separates terrestrial non-human animals from other wildlife (fish and trees). However, whilst the categorisation introduces who the perpetrators of environmental crimes are (which we return to below), this definition is limited, as it does not recognise that there are other drivers of environmental harm besides financial gain and other perpetrators besides 'criminal entities' (i.e., organised crime groups). There are, therefore, different approaches to defining environmental crime; ones that are very detailed as with the abovementioned EU Directive, or others containing more abstract descriptions.

Defining environmental crime is important because '[f]or environmental law to be effective, environmental crime needs to be clearly defined and institutions empowered to apply the law and to deal with violations through compliance and enforcement' (UNEP, 2017: 9). Thus, from a legal perspective, there is the necessity to have a formulation of environmental crime in statute. From a policy perspective, a definition of environmental crime is important in providing focus for policy-makers. The EU seems to have put in place the legal framework and supporting criminal justice, environmental regulatory and other relevant structures. Yet, Nellemann et al (2016: 11) suggest that 'the sites most affected by environmental crimes are also in the countries with the least resources to address them.' Thus, INTERPOL and UNEP (2016: 10) 'call upon the international development community to recognize and address environmental crime as a serious threat to sustainable

development, and to strengthen the share of ODA [Official Development Assistance] to governance and judicial sector reform, including combating and preventing environmental crime.’ For the international development community (and everyone else) to respond, it is important to know who commits environmental crimes.

Seemingly, they are committed by a diversity of actors. Individuals may act as poachers, smugglers, brokers and exporters/importers, among other roles (UNEP, 2018). Their motivations for doing so can be ‘as a result of poverty and limited livelihoods’ (UNEP, 2018; see also, for example, Sollund, 2019), but also having been coercively recruited by powerful actors (UNEP, 2018). Whereas reports note that organised crime groups recruit people to commit environmental crimes, it should not be overlooked that significant amounts of environmental crime are linked to legal businesses and corporations (Pearce and Tombs, 2019; Tombs and Whyte, 2015) and their recruitment of people to commit crimes should be further explored.

Across the range of environmental crimes, Nellemann et al (2016: 9) warn against the role of corporations, in part because of their negative impact on development:

*‘criminal networks now also engage in ‘white collar’-crimes, including corporate crimes, use of thousands of shell companies in tax havens, tax fraud, double counting, transfer mispricing, money laundering, internet crimes and hacking, phishing/identity theft, securities fraud, financial crimes, and fraudulent reclaiming of carbon credits, to mention a few, impeding and hindering development goals across sectors at both national and global levels.’*

UNEP (2018) describes situations in which large multinational corporations exploit natural resources, pollute and dispose of hazardous waste in ways that damage the environment, so as to secure more profit and/or reduce their costs. Such crimes are usually embedded into corporate practices in order to meet corporate goals (Situ and Emmons, 2000; Tombs and Whyte, 2020). Nurse (2015: 2) notes that despite the move of many corporations to engage with corporate social and environmental responsibility, there is evidence of ‘disregard for the communities in which they operate and causing considerable environmental damage’. He proposes that some corporations choose to situate themselves in places with weak environmental regulations, where governments respond to environmental crime with administrative or civil penalties, which are usually less punitive than criminal penalties. In such cases, non-compliance with environmental regulations can be regarded as a deliberate way of doing business – some corporations prefer to pay penalties and continue to engage in environmental crime. Furthermore, corporations have enough power and resources to guard against efforts by law enforcement to hold them accountable, which makes their activities particularly dangerous (White, 2011). Equally problematic are instances of state-corporate crime where corporations and states collude in evading and/or not enforcing environmental (and other) regulations (White and Kramer, 2015). States can be reliant on or intimidated by powerful industries and companies. Tax revenue, jobs, media support and political donations may hinge upon state-corporate relations (White and Kramer, 2015).

*‘Officials of national governments and public bodies arguably commit environmental crimes either ‘directly’—by breaching environmental duties or omitting to act in conformity with them—or by facilitating offences committed by entities, such as multinational corporations’ (UNEP, 2018: ix).*

It is not just large multinational corporations which give cause for concern. The Environmental Audit Committee of the British House of Commons (2005) states that sole proprietors and unincorporated

small and medium-sized enterprises engage in similar environmental crimes both purposefully and accidentally.

In discussing criminal networks, Haken (2011) notes that they have little incentive to support legitimate economies, because they can function easily in underdeveloped places with weak states. He argues that:

*'[u]nregulated, they [criminal networks] minimize overhead in developing source countries by exploiting local labor forces, often resorting to forced or child labor, dodging environmental and safety regulations, and evading trade tariffs. Any improvements in economic development and governance would usually hinder their illegal activities, so it is in their best interest to actively prevent their profits from flowing into legitimate developing economies. In this way, transnational crime and underdevelopment have a mutually perpetuating relationship'* (Haken, 2011: v).

We suggest that criminal networks could include corporations which are involved in environmental crime. With no incentive to support development or comply with environmental and other laws, it becomes necessary to consider how corporations can be held accountable both where they are incorporated and where they operate. Law enforcement and regulatory agencies may have limited impact on the behaviour of corporations or their willingness to accept responsibility for harmful activities (Dybing, 2012), so other avenues for addressing environmental criminality of corporations need to be considered (see Section 4 Recommendations).

Although all environmental crimes that were mentioned earlier are worthy of further exploration, this would extend the study beyond our remit. Accordingly, this analysis focuses specifically on wildlife, forestry and fishery crimes, as well as illegal mining and pollution (including waste) as these are particularly prominent forms of environmental crime which create considerable impact. In what follows, we will present the current state of knowledge regarding the nature, scope and consequences of these environmental crimes in developing countries, paying particular attention, where information is available, to European corporations' role. Firstly, we detail the methodology used in undertaking this study.

### 1.1.1 Methodology

The main goal of this desk-based research is to investigate the state of knowledge around environmental crime in the developing world and collect information about good practice to combat it. Despite numerous reports providing overviews of environmental crime throughout the world, research on environmental crime in various countries and EU Delegation materials about environmental crime in developing countries, there remain a number of hurdles in investigating good practice in this field. As mentioned above, there is limited evidence to support understanding of what works (Me 2022). Whatever information is available often does not specifically address the full nature and scope of environmental crime. Moreover, there are still gaps in knowledge – as we detail below – as to the legislative and structural approaches to environmental crime. Further empirical research at country and local levels is needed to gain a full understanding of precisely what environmental crimes are taking place and how they are being responded to. In addition, studies need to be conducted to assess the impact of such responses and consequently what constitutes good practice. Within these confines, we firstly conducted a thorough review of policy, EU legislative initiatives and academic literature not only on environmental crime generally, but also developing countries in particular. As information about environmental crime and related good practice is limited and/or scattered across many sources, information here considers generally accepted good practice in relation to environmental crime. Secondly, we rely on the expertise

acquired as academics working in the field of green criminology and through the [EFFACE project](#) (European Union Action to Fight Environmental Crime). Importantly, we work within a network of academics who have conducted field studies on environmental crime. Thirdly, in the case of Colombia, we rely on empirical data we ourselves have accumulated through field research in the country and subsequent publications. Finally, we consulted with two other academics and seven EU delegations linked to the case studies and other countries of interest to DEVE. In the case of Indonesia, we also consulted with a Norwegian advisor from the Ministry of Climate and Environment in Norway, who was a delegate to the negotiations with Indonesia concerning the Norwegian climate initiative.

## 1.2 Wildlife, forestry and fishery crime

While habitat destruction is the leading cause of biodiversity loss, overexploitation, illegal trade and other human activities (IPBES, 2019) also constitute environmental crimes, which together are responsible for nearly one million species being at risk of extinction (IPBES, 2019). Whereas plants, timber and fish are wildlife, their use and management are very often governed by separate legislation from that covering terrestrial non-human animals (i.e., amphibians, birds, reptiles and mammals) (Wyatt, 2021a). Thus, programmes to combat environmental crime often focus on wildlife, forestry and fishery activities separately (see, for instance, [INTERPOL's Global Programmes](#) and delineation of environmental crimes from the [United Nations Office on Drugs and Crime - UNODC](#)) and we divide our analysis accordingly.

UNODC's (2016; 2020) World Wildlife Crime Reports document that wildlife crime<sup>1</sup> involves all parts of the globe. Biodiverse countries are most frequently the areas from which wildlife is taken, but less diverse areas such as Europe and Canada also have wildlife illegally hunted and/or captured (Sollund, 2021; Wyatt, 2021b). Certain wildlife markets have trade chains that flow in specific directions. For instance, amphibians, arachnids, birds and reptiles, which are popular in the pet trade, are taken from Africa, Asia and Latin America before being smuggled to the United States of America (USA) and Western Europe (Wyatt, 2021b). A different wildlife market, such as traditional medicines, has its roots in the same places, but ends up with consumers in China and other parts of Asia. In the case of global trade chains, countries such as the United Kingdom (UK) or Singapore may act as consumers and transit points (Sollund and Maher, 2015; van Uhm, 2016). Data collected by UNODC (2020) identifies suspected traffickers from 150 different countries, reinforcing ideas that wildlife trafficking is a transnational – sometimes organised – environmental crime (see Wright, 2011). All taxonomic groups of wildlife are subject to trafficking. According to seizure data<sup>2</sup>, mammals are the most trafficked taxonomic group (23 %). They are followed by reptiles (21.3 %), corals (14.6 %), plants (14.3 %), birds (8.5 %), molluscs (7.9 %), bony fish (4.7 %) and other species (5.7 %) (UNODC, 2020). Reasons for wildlife and wildlife products being in such demand vary greatly (see Section 3.1 for examples). While this demand has been categorised in various ways (see Sollund, 2019; Wyatt, 2021b), UNODC (2016) has grouped demand into: furniture; art, *décor* and jewellery; fashion; cosmetics and perfume; food, [health] tonics and medicines; pets, zoos, breeding; and seafood. These categorisation and other studies provide evidence that to some degree corporations play a role in wildlife trafficking as these categories all make up legitimate industries (Reid and

<sup>1</sup> Wildlife crime is limited in UNODC's analysis to wildlife trafficking, so it does not include blood sports like badger baiting or poaching/illegal hunting happening domestically, which scholars like Nurse and Wyatt (2020) argue are also wildlife crimes.

<sup>2</sup> Seizures are illegal activity that has been detected by law enforcement and not a complete or wholly accurate picture of the type or amount of crime taking place. They also are a poor measure of 'success' in tackling wildlife trafficking, as the wildlife has already been taken from their habitat and are likely not able to be returned, or has been killed.



Haenlein, 2022; Wyatt et al, 2020). Wildlife trafficking causes harm, injury, suffering and death to all wildlife (Maher and Sollund, 2016; Sollund, 2019; Wyatt et al, 2021). Furthermore, it can be connected to extinction and the introduction of 'invasive' species (who are brought to new ecosystems by people and then outcompete native wildlife), which can both disrupt ecosystems. There is also damage to humans and economies (and thus, development) as a result of such trafficking, with damaged ecosystems negatively impacting human livelihoods and industries. Moreover, wildlife trafficking circumvents tax and health structures, thereby not only depriving governments of revenue needed for social services, but also potentially endangering public health through links to zoonotic disease transmission. As Wyatt (2021b) argues, corruption, organised crime groups and, to a much lesser degree, terrorists and insurgents facilitate wildlife trafficking. Thus, wildlife trafficking can pose challenges to the rule of law, threaten human physical well-being and security through violence as well as destabilisation or capture of governmental structures.

Forestry crimes are similarly global and have significant consequences, such as: deforestation; forest degradation; logging; and timber trade. The European Commission (2021c: 1) recognises that the:

*'main driver of deforestation and forest degradation is the expansion of agricultural land to produce commodities such as cattle, wood, palm oil, soy, cocoa or coffee. A growing world population and increasing demand for agricultural products especially those of animal origin is expected to increase demand for agricultural land and put additional pressure on forests'.*

Furthermore, there is some awareness that people and organisations in the EU are consumers of products that contribute to such deforestation and degradation. The EU itself 'lacks specific and effective rules to reduce its contribution to these phenomena' (European Commission, 2021c: 1) (see Recommendations on how to address this). Whilst the EU has implemented the Forest Law Enforcement, Governance and Trade Regulations (FLEGT), which has led to numerous Voluntary Partnership Agreements (VPAs<sup>3</sup> – see Indonesia Case Study 3.2), the regulations do not specifically address deforestation (European Commission, 2021c).

Forestry crime has a similar geographic signature to wildlife crime. Biodiverse countries, particularly in the tropics, are subjected to deforestation, illegal logging and timber trafficking. Thus, the Amazon region, the Congo Basin and Southeast Asia experience high levels of forestry crimes (INTERPOL and UNEP, 2016). Such crimes though are not exclusive to the tropics; temperate forests in Canada, Romania and Russia also struggle with forestry crimes (INTERPOL and UNEP, 2016; Iordachescu, 2020; Wyatt, 2021b). The timber from these operations is destined for China, the EU, Russia and the USA (UNEP, 2018). According to UNEP (2017: 25), '62 % of illegal tropical hardwood entering the EU and US comes in as paper, pulp or wood chips'. They estimate that between 15 % and 30 % of the global trade in timber is illegal and valued around USD 152 billion. In key source countries, 90 % of logging may be illegal and involve criminal activity (UNEP, 2017). The trade chain from source country through processing to consumer country is complex and involves numerous actors. These include, but are not limited to, logging companies, public officials, local workers, law enforcement and in some cases the military (Haken, 2011). This reinforces the possibility of a state-corporate crime element, as mentioned earlier.

Forestry crimes also come in other forms. Charcoal production in Africa and to a lesser degree Southeast Asia has been linked to illegal activities (INTERPOL and UNEP, 2016; Wyatt, 2014; see also Section 3.4 on the Democratic Republic of Congo (DRC)) and non-timber forest products – other

<sup>3</sup> VPAs provide a framework within which only timber licensed as legal can be imported into Europe from partner countries (Hoare, 2015).



plants besides trees and fungi – are also subjected to illegal harvest and trade (Timoshyna et al, 2021). Charcoal is traded within Africa, but also transported to the Middle East (INTERPOL and UNEP, 2016). Non-timber forest products form part of many goods sold in the West which appear as ornamental and decorative plant collections (i.e., cacti, orchids and succulents), a substantial industry in the Global North (Timoshyna et al, 2021; Wyatt, 2021b).

As with wildlife crimes, forestry crimes have significant consequences for people and the planet. Brack (2007) found many years ago that despite the capital that forestry crime might bring to a developing country, ultimately it does more harm than good. Timber trafficking damages the environment, denies governments billions of dollars in revenue, promotes corruption, undermines the rule of law and can provide funds for armed conflict (Brack, 2007). Degraded forests also damage people's livelihoods and reduce biodiversity. Furthermore, deforestation has extremely serious global implications regarding climate change and meeting targets set at the 2021 Conference of the Parties in Glasgow.

Illegal, unreported and unregulated (IUU) fishing has detrimental consequences similar to wildlife and forestry crimes (i.e., threatens food security, contributing to biodiversity loss, etc.). The flows are also similar with fish being taken from developing countries for transportation to the Global North for consumption. The UN Convention on the Law of the Sea divides the world's oceans into national (exclusive economic zones) and international waters (Kaysser and Adal 2020); IUU fishing is taking place within both these exclusive economic zones of respective countries as well as international open seas (UNEP, 2018). The latter are governed by 17 Regional Fisheries Management Organisations (RFMOs) (Kaysser and Adal 2020). Countries can be members of more than one RFMO and decisions by the RFMO are binding on member countries. INTERPOL and UNEP (2016) highlight West Africa, Latin America and Southeast Asia as the main sources of IUU fishing and note that the fish are consumed in China, the EU, Japan, Southeast Asia and the USA. Corruption appears prominent in IUU fishing, sometimes involving private actors, such as businesses and corporations, which shield and hide corrupt owners of fishing vessels and connect these owners to other corrupt actors in the industry (U4, 2021). Perhaps more than in other environmental crimes, the number of actors, jurisdictions and regulations governing the fishing industry creates a highly complex international web that is difficult to untangle. Studies by U4 (2021), Trygg May Tracking (TMT) and C4ADS (2020), and Petrossian et al (2014), among others, indicate that EU businesses and vessels are integral to this complex industry.

Part of the complexity stems from 'flags of convenience', where fishing vessels register in a country that they are not associated with in terms of nationality or company incorporation (see Section 3.3 on Ghana). Countries providing such flags deliberately allow vessels to avoid licensing fees, taxes and safety requirements in that country (Haken, 2011). The International Transport Workers' Federation – an advocacy organisation for the rights of transportation workers - has identified that there are 42 countries or territories currently using flags of convenience (ITF, 2022). The vast majority of these are developing countries that are generally not members of RFMOs. This means that these vessels are not subject to international law (Haken, 2011). ODI (2016) note that the largest number of owners and managers of vessels using flags of convenience come from EU countries, with Spanish actors commanding more than half. There are also ports of convenience, where there is little or no oversight regarding the legality or provenance of the fish (Petrossian et al, 2014). Historically, Las Palmas de Gran Canaria in the Canary Islands acted as one such port and at the time was Europe's largest point of entry for fish coming from West Africa (Petrossian et al, 2014). Las Palmas de Gran Canaria is one the EUs 'free zones' where non-EU goods are not subject to taxes and hence a disproportionate amount of IUU fishing takes place (Petrossian et al, 2014).

IUU fishing is also made possible by the fishing industry's use of shell companies (an inactive company used to move finances), front companies (a functional company used to disguise illicit finances) and joint ventures (a business created by more than one entity) (see TMT and C4ADS, 2020). These practices allow fishing operators to hide illegal activities and conceal their identities. TMT and C4ADS (2020: 2) have found such structures enable 'illegal harvesting, document forgery, vessel identity fraud, human trafficking, crew labour abuses, and tax evasion' (see also Newman, 2015; Newman and Farmer, 2016). They note that IUU fishing impacts developing coastal countries in particular, as they are targets for these tactics.

IUU fishing is linked to other environmental crimes, such as dumping of fuel oil and 'ghost gear', where miles of plastic gillnets are discarded in the ocean (Monbiot, 2022). Depending upon the type of vessel and the target fish species, there may be severe damage to the seabed and 'bycatch' where non-target fish are killed and discarded. Both have implications for biodiversity. There are also concerns about overfishing, due to which some coastal communities can no longer support themselves by fishing because 'stocks' have been depleted. This may be tied to the size and capacity of some vessels (EJF, 2020; Haenlein, 2017; see Section 3.3). Furthermore, as listed above, IUU fishing is linked to severe human rights abuses, such as forced labour, human trafficking and the murder of fishers (EJF, 2020; TMT and C4ADS, 2020; see Section 3.3). As with other forms of wildlife crimes, those relating to fishing have devastating impacts on wildlife, the environment and people, with an unequal bias towards developing countries.

### 1.3 Illegal mining

According to INTERPOL and UNEP (2016), there are surface, underground and deep-sea forms of illegal mining. The substances targeted are metals (gold, silver, copper), non-metals (rare earth minerals such as cobalt for electronics, uranium and gemstones) as well as fuels (oil). Illegal mining is widespread, having been documented in Africa (DRC (see Section 3.4), Ghana, Guinea, Mali, Mozambique, South Africa, Tanzania, Uganda, Zambia and Zimbabwe), Central and Southeast Asia (particularly the Mekong region), as well as Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela). Uranium mining seems to be concentrated in Central Asia (INTERPOL and UNEP, 2016). Not only are these activities widespread, but studies also indicate that illegal mining forms a significant portion of all mining. For instance, 'estimates of the proportion of illegal gold mining are: about 28 % of gold mined in Peru, 30 % of gold mined in Bolivia, 77 % of gold mined in Ecuador, 80 % of gold mined in Colombia and 80–90 % of Venezuelan gold is produced illegally' (Nelleman et al, 2016: 69; see also Veening et al, 2015).

Zabyelina and van Uhm (2020) note in the introduction to their edited collection on illegal mining that illegal trade in minerals, including diamonds and gold, follows the same paths as the legal trade. They argue through the chapters in their book that it can be almost impossible to differentiate between mined products of dubious origins and those coming from legitimate sources. As Naylor (2010) observed more than a decade ago, following extraction from the ground, gemstones or other mined materials change hands locally several times and then most likely end up in a wholesale centre, where they may be subject to further trading, all of which obscures their origin. Mined products such as gemstones are then sold again to cutters, re-enter the (international) trade chain and are ultimately bought by investors or jewellery manufacturers. Finally, the jewellery or product is purchased by a customer. Historically, the gemstone and diamond industry has not been transparent, particularly regarding the volumes of trade and the value of businesses involved (Haken, 2011).

As with forestry crime, illegal mining may bring capital flow to developing countries, but in general it is difficult to know the full impact of such crime in these countries (Haken, 2011; Zabyelina and van Uhm 2020). Haken (2011) argues that most of the profits from illegal mining go to intermediaries, corrupt officials and Western companies. Zabyelina and van Uhm (2020) add that organised crime groups and insurgents may also profit. Looking beyond financial implications, impact on the environment and people exposes the true significance of this environmental crime. For instance, looking at illegal gold mining in Latin America, '[h]undreds of thousands of workers are employed, similar to the DRC with some 500 000 artisanal and illegal mining jobs, often including labour trafficking and exploitation, sex trafficking and child labour' (Nelleman et al, 2016: 69; see Section 3.4). Clearly, there are human rights abuses central to the operation of illegal mines, with further abuses stemming from local and indigenous people being physically displaced because of the mining itself and the environmental pollution generated. In Peru, for example, the Madre de Dios area, where one-tenth of the country's gold exports originate, eight out of ten people suffer from mercury levels 'three times higher than the permissible limit' (UNEP, 2017: 28), which pose a serious risk to human and environmental health (Veening et al, 2015).

Possibly millions of people globally are being exploited by the mining industry and companies that profit from legal operations. At the same time, millions more people are having their environments destroyed and contaminated by the infrastructure of mines and the processes used to extract minerals. Damaged and polluted environments resulting from mining also contribute to the loss of biodiversity and climate change.

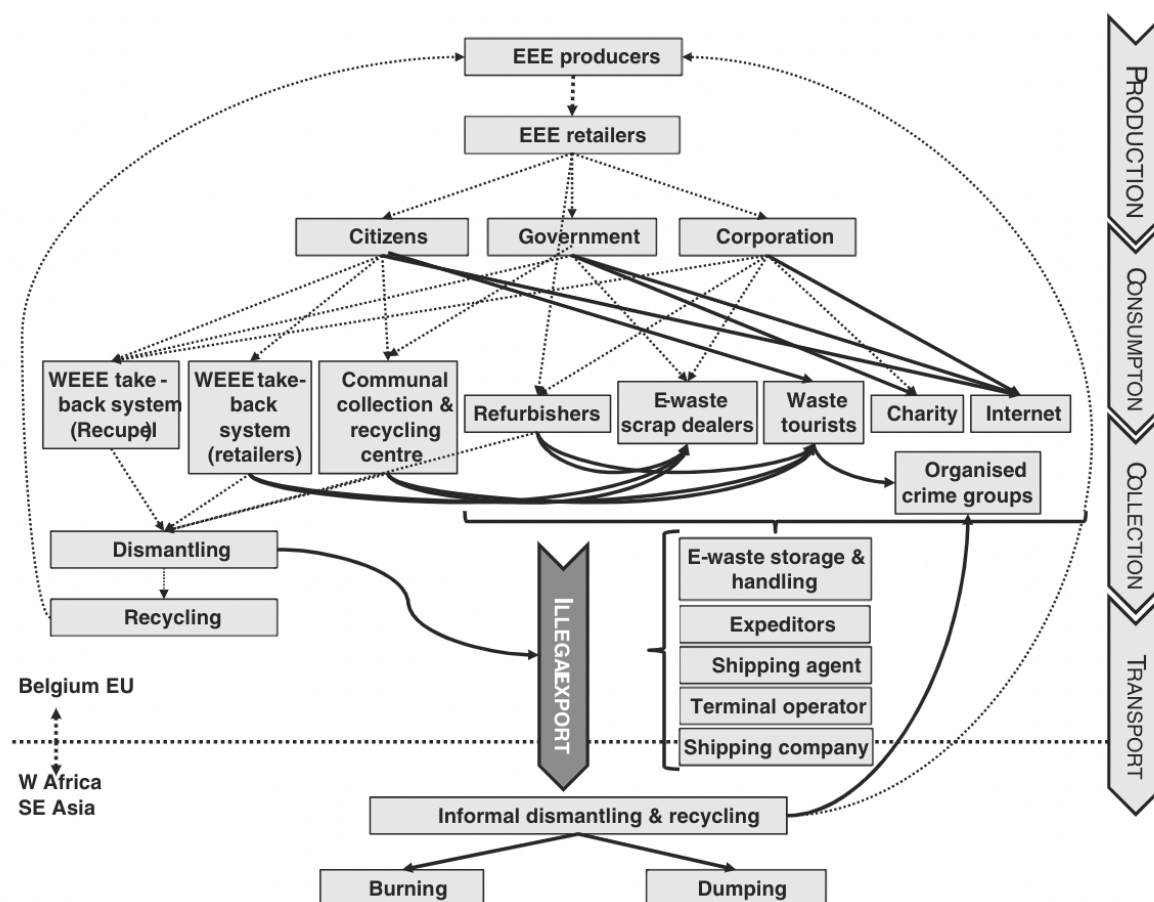
## 1.4 Waste and pollution

Pollution, particularly waste, has a different trade chain than illegal wildlife (including fish and timber) and mining markets. While waste is produced everywhere, countries in the Global North ship their waste to developing countries, supposedly to be recycled or reused. Numerous reports demonstrate that the waste moves within a complicated trade network of legal and illegal operators, which can be engaged in: mislabelling; false declarations of content; fraudulent authorisations; hiding waste amongst legal shipments; and illegal dumping (Geeraerts et al, 2015; Illés and Geeraerts, 2016), INTERPOL and UNEP, 2016). There are many kinds of waste such as: electronic components from computers and electrical equipment; plastics for recycling; appliances with ozone depleting substances; domestic waste; cleaning products and chemicals from households and industry; end-of life vehicles; and used tyres (INTERPOL and UNEP, 2016; U4, 2012). UNEP (2018) notes that: e-waste is usually transported to Africa and Southeast Asia; used car parts and end-of-life vehicles go to Eastern Europe and Africa; whilst plastic ends up in Asia, predominantly China until its import ban at the end of 2019. Shipbreaking by beaching is also a form of hazardous waste and pollution (van Wingerde and Bisschop 2019). Global North companies run old ships aground on beaches in West Africa and South Asia. For instance, a Dutch vessel was beached in Bangladesh without having properly declared the hazardousness of waste on board (van Wingerde and Bisschop, 2019). New streams of waste are emerging, such as solar panels and electric car batteries, as green technologies become more prevalent<sup>4</sup>. Continued economic growth implies an ongoing increase in hazardous and other waste, which is 'projected to reach 27 billion tons worldwide by 2050' (UNEP, 2017). As Bisschop et al (forthcoming) point out, corporations are – and have a long history of – purposely creating waste by developing electronics with 'planned

<sup>4</sup> Expert consultation with Dr Lieselot Bisschop [Erasmus University, Rotterdam].

obsolescence'. In other words, these are products which are designed to function only for a relatively short period of time before being replaced.

Eurojust (2014) notes that illegal waste is linked to legal businesses. In Europe (and elsewhere), companies try to avoid fees for the proper disposal of waste by trying to circumvent regulations at national and EU levels. INTERPOL and UNEP (2016) have found the same; namely, legal and illegal waste markets sit alongside each other. Whereas the EU is a key producer of (illegal) waste, Belgium, Germany and the Netherlands are also key transit points (INTERPOL and UNEP, 2016). Annual revenues in the EU for hazardous waste trafficking, while difficult to gauge, are estimated to be between EUR 1.5 and EUR 1.8 billion and between EUR 1.3 and EUR 10.3 billion for non-hazardous forms of waste (Colatoni and Bianchi, 2019). Figure 1 below by Bisschop (2012: 233) illustrates the complicated relationships between numerous corporate actors in the illegal e-waste market.

**Figure 1: Actors involved in e-waste transports**

Source: Bisschop, 2012.

Bisschop (2012: 240) has found that e-waste ‘discarded by industrialised countries may represent the sole secure source of livelihood for many people in developing countries’. For some developing countries, waste trade has become an industrial and economic necessity (Hall, 2013). Yet, ‘the environmental and social harms produced by the illicit disposal of waste are often ignored because the activity presents economic benefits for both developed countries’ and the developing world (Liddick, 2010: 135). The developed world benefits by paying less or nothing for the proper disposal of waste, thus saving businesses and governments money. Developing countries benefit from this income and potentially from the influx of some reusable materials. For example, in the case of shipbreaking, Bangladesh needs the steel, the opportunities of employment for the people breaking down the ship, and the tax revenue (van Wingerde and Bisschop, 2019).

As with other forms of environmental crime, waste dumping involves human exploitation, with the people processing illegal waste being unregistered workers, who operate in hazardous and injurious conditions that threaten their health (Walters and Loureiro, 2020; see Section 3.3 on Ghana). Waste processing requires chemicals and the waste itself often contains dangerous substances such as mercury. When the waste cannot be further recycled or reused, it is likely to be burned, which has negative implications not just for people near the burning waste, but also the environment more generally (Walters and Loureiro, 2020). Billions of tons are being produced every year and, worse still, this is continuing to increase. Developing countries and their populations are facing increasingly significant risks from this alarming environmental crime.



## 2 Shortcomings in developing countries as regards environmental rule of law

In Section 2 we provide an overview of responses to environmental crime, focusing on developing countries when possible. To reiterate, there is limited data about good practice and lessons learned. Hence, our aim is to outline: the state of knowledge of legislation and its implementation; information collection, management and use; financial and human capacity; enforcement; and corporate governance related to environmental crimes.

### 2.1 Legislation and its implementation

It is crucial to understand that, while there is information regarding environmental crimes in general, as summarised earlier in Section 1, there are no consolidated details about the state of national legislation addressing environmental crimes. In addition, more research needs to be undertaken which focusses on the relationship between environmental crime and seemingly relevant European-level policy as well as regional and international conventions. For instance, the [European Green New Deal](#) does not specifically address environmental crime and nor do the [Aarhus Convention](#) or the [Escazu Agreement](#). There should also be further research into the ratification and implementation of international conventions relevant to environmental crime; currently, information about their implementation is scattered amongst various sources and thus not possible to summarise. There is also evidence which suggests a lack of harmonisation with regard to sanctions (Faure et al, 2016).

Nevertheless, there are a few references that have attempted to compile a more complete picture of legislation related to wildlife crime from a trading perspective (summarised here, but also see Legal Atlas; Wyatt 2021a). It does not appear that similar efforts have been made in relation to other environmental crimes, although the intelligence platform Legal Atlas (see below for further discussion) is beginning to draw together this information. Furthermore, in early 2022 UNODC was recruiting for a programme officer to coordinate a Global Report on Crimes that Affect the Environment. So far, the best attempt at producing a consolidated overview of environmental legislation may be the UN Environment Program's first Global Report on Environmental Rule of Law (UNEP, 2019). However, despite this perhaps representing the most comprehensive global picture of environmental legislation to date relevant to crime, it does not specifically focus on environmental crime and related responses. Instead, its concentration is rather on environmental compliance (which also encompasses administrative and civil legislation as well as violations) along with other human rights related aspects of environmental law, namely government responses to the murder of environmental defenders.

This absence of a consolidated information source regarding environmental crime is at least in part due to the convoluted nature of its governance. Such crime (including wildlife, forestry and fishery) is virtually impossible to track, being situated within various government ministries, crossing between administrative, civil and criminal legislation, involving the implementation of local, regional and national legislation as well as regional and international conventions (Eurojust, 2014). A further layer of complexity is added when considering how the environmental rule of law is impacted by corruption, counterfeiting, cybercrime, drugs and financial systems legislation (i.e., money laundering and the banking sector) (INTERPOL and UNEP, 2016).

That said, UNEP (2019: viii) finds that: '[a]s of 2017, 176 countries have environmental framework laws; 150 countries have enshrined environmental protection or the right to a healthy environment in their constitutions; and 164 countries have created cabinet-level bodies responsible for

environmental protection’ – albeit the report does not provide any breakdown of which countries are involved. Ristroph (2012) points out, though, that in the developing world many initial environmental laws are based on the laws of former colonial powers. Exactly where this has happened and where laws have not been changed should clearly be subject to further research. The problem with laws being instituted in this fashion is that each country has its own conditions, needs and priorities; consequently, copying or importing legislation from elsewhere does not suit every local context (Ristroph, 2012). Thus, even though environmental framework laws may cover most of the world, they may be neither appropriate nor effective, which again calls for further investigation.

Developing countries may well be party to important conventions aiming to protect the natural environment and have implemented legislation, without this resulting in efficient enforcement. An example is Vietnam<sup>5</sup>:

*‘Vietnam has legislation in place to protect wildlife and the natural environment; is party both to CITES and the Convention on Biodiversity; has an extensive list of pieces of national legislation governing this matter; and has strengthened its policies and legal system the recent years to improve the control over wildlife and environmental protection. Still, illegal wildlife trade remains a problem despite the efforts of the Government and from NGOs [non-governmental organisations]. Problems are inter alia: increasing illegal wildlife trade, both in terms of volume and complexity; conflicting penal and administrative regulations (the big majority of wildlife seizures made in Vietnam do not result in convictions and penalties); inefficient handling of confiscated items; limited capacity of enforcement by the relevant authorities (database information, equipment, human and financial resources, coordination among authorities); corruption; and lack of public awareness and concern’ (interview with EU delegation to Vietnam).*

In addition, where legislation does exist, it may not be implemented either because there is no political will or because the state is benefitting from this illegality in some way. In Nigeria, as another example, e-waste regulations have not been implemented apparently due to the absence of political will by leaders, coupled with local waste traders paying corrupt officials and thus being allowed to operate (Lambrechts and Hector, 2016). Similarly, in Bangladesh ships containing hazardous waste are still allowed to be beached, in part because corrupt government officials are involved in the shipbreaking industry (Van Wingerde and Bisschop, 2019).

Whilst at first sight the vast scale of environmental framework laws appears promising, evidence from a study on legislation related to CITES stresses that the presence of legislation does not equate to implementation or compliance (see Wyatt, 2021a). Through its National Legislation Project, CITES is monitoring implementation, which 183 signatory parties are mandated to transpose into their own domestic legislation. There are four key action components by which implementation is assessed: designate a CITES Management and Scientific Authority; prohibit trade in specimens in violation of CITES; penalise such trade; and confiscate specimens illegally traded or possessed. Prohibition and penalisation do not require criminalisation and can be dealt with administratively. The National Legislation Project categorises a party’s legislation based upon whether or not it contains: all of these components (Category 1); some of these components (Category 2); or none of

<sup>5</sup> The comprehensive list of legislation is available in English at the following address (Local NGO Education for Nature Vietnam (ENV)): <https://env4wildlife.org/wildlife-law-library/>.

these components (Category 3). After more than 45 years, implementation of CITES legislation can be broken down as follows:

- Category 1 – 92 parties (>50 %)
- Category 2 – 46 parties (25.3 %)
- Category 3 – 36 members (19.8 %)
- 8 countries had not been assessed by the National Legislation Project at the time of this study, having more recently joined CITES (4.3 %)

Just over half of the parties have implemented the required components in their legislation. The CITES Secretariat and Standing Committee also monitor parties' compliance with the Convention in terms of mandated annual and biennial reporting as well as the need for parties to ensure that approved trade in CITES-listed species does not threaten the species' survival. Regarding compliance:

- 18 countries are in need of urgent action
- 31 countries have some form of trade suspensions
- 9 countries are both in need of urgent action and have a suspension (Wyatt, 2021a).

The 31 countries under suspension are in this position because of their lack of reporting. Yet, the number of parties, which have failed to submit biennial reports is much higher, with 67 countries *never* having submitted such a report. Biennial reports, now called implementation reports, contain data about how the party is implementing CITES as well as sharing information on the challenges and limitations being faced. The biennial/implementation reports are critical to assess whether or not CITES legislation is being put into practice. Furthermore, Wyatt's (2021a) study found that even when parties do report as required, the quality of reporting can be poor.

CITES legislation is trade law, a small part of the overall approach to wildlife conservation, which in turn is a small portion of environmental legislation and aspects related to environmental crime. As mentioned earlier, [Legal Atlas](#) is in the process of consolidating more information on the state of environmental crime legislation. It has created a platform that is a repository for various subjects of legislation – currently there are 15, covering *inter alia* wildlife trade, environmental crime as well as artisanal and small-scale mining. The platform also features an ongoing vote related to an additional 55 topics for inclusion in this legislative repository, such as waste management and land tenure. Legal Atlas also assesses and analyses the context of a country's legislation. Both repository and platform are free to use with registration on their website. In collaboration with partners and independently, Legal Atlas additionally produces reports 'covering wildlife, environment, marine fisheries, linear infrastructure, criminal law and more'. As just one example, their latest report is a [Legal Assessment of the Implementation of the Convention on Migratory Species and the Gorilla Agreement in Cameroon and Nigeria](#). This platform certainly provides a useful tool for exploring environmental crime legislation and its future implementation, a valuable source considering that country-level information about legislation is not consistently accessible. In addition, information may be available for some, but not all environmental crimes (there is no universal definition, as outlined in Section 1).



## 2.2 Information collection, management and use

A compounding problem regarding knowledge about environmental crime is the ongoing failure of governments to collect related information. As noted by Hall and Wyatt (2017) and repeated in the literature analysed for this study (see European Commission, 2017; UNEP, 2017; 2018; 2019), environmental crime data is in general terms not consistently recorded. The UK is widely regarded as one of the best countries in responding to wildlife crime, with a reputation for good practice in collecting and sharing general crime statistics. Yet, UNODC reports that:

*'The data collection and analysis processes are inconsistent across the UK, as constituent countries follow their own systems of recording and publishing wildlife crime data such as incidents, recorded crimes, and seizures. NGO and other stakeholder data are commonly required to bolster administrative statistics' (UNODC, 2021: 18).*

This highlights a consistent finding that NGOs and civil society are critical factors in tackling environmental crime. As a further example, in Norway no statistics are kept on CITES violations (Sollund, 2019). Thus, even in supposedly well-resourced countries, information collection on environmental crime remains problematic. Furthermore, any information about environmental crime that we do have is likely to be skewed because non-European countries have not responded to environmental crime to the same degree, hence less data is available from the Global South (INTERPOL and UNEP, 2016). For instance, in Nigeria's illegal e-waste trade, there is limited understanding of how e-waste is imported and how to track it once it enters the country, thus it is likely that no data is collected about this environmental crime (Lambrechts and Hector 2016).

In terms of information management, there are (at least) two hurdles to be overcome. Firstly, any information collected may not be shared because coordination between national and international environmental authorities is lacking (European Commission, 2017). For instance, from 2002 to 2003 illegal logging in Indonesia was being captured through a satellite mapping programme. However, no legal cases arose from this activity because the images and related analysis were never shared with forest law enforcement or the prosecutor's office (UNEP, 2019). Similarly in Bangladesh, the lack of coordination between regulators hinders progress towards tackling illegal shipbreaking (Alam and Faruque 2014). Secondly, in Europe, and presumably elsewhere, environmental authorities have reported that they are unable to share information between authorities, because such sharing is prohibited by privacy laws (Intelligence Project on Environmental Crime, 2015). A lack of robust information collection and management probably means that the information's use is limited. This is a concern, since, as UNODC (2021: 18) contends, 'data collection and analysis processes are viewed as integral to maintaining consistency in reporting across forces/agencies, informing the targeting of resources, and evaluating the effectiveness of responses and enforcement agencies'.

## 2.3 Financial and human capacity

The lack of financial and human resources is repeated in practically all studies dealing with environmental crime, regardless of the jurisdiction. For instance, in the European Commission's 2017 review of Environmental Implementation, it was found that Member States lacked the administrative and financial capacity to address environmental crimes (see also the EFFACE project studies). An analysis of the CITES biennial/implementation reports indicates that parties from the Global North and South are reporting difficulties in implementing and enforcing the Convention's provisions due to a lack of resources (Wyatt, 2021a). Moreover, in relation to wildlife crime, frontline police officers, the National Wildlife Crime Unit, Border Force and prosecutors in the UK were all recently found to be hampered by limited resources (UNODC, 2021). The same has been noted for

shipbreaking (Alam and Faruque 2014) and environmental crime generally in Bangladesh (Faroque and South 2022), for e-waste in Central and West Africa (Okafar-Yarwood and Adewumi 2020), for wildlife trafficking in Vietnam (interview with EU delegation) and throughout Latin America across all environmental crimes (Goyes et al 2017, Sollund, 2019, Ungar 2017).

However, in order to tackle environmental crimes, any additional human resources must be suitably qualified. Studies indicate that staff within environmental authorities may lack the training necessary to handle complex environmental crime cases effectively, which frequently require specialist knowledge (Faure et al, 2016; Gerstetter et al, 2016; UNEP, 2019). This seems to be so across the entire range not only of environmental crimes (wildlife, forestry and fishery crimes, as well as pollution and waste), but also environmental authorities (police officers, rangers, forensic scientists, prosecutors and judges) (Hall and Wyatt, 2017). In a report on environmental crime in Europe, it was found that many authorities had neither sufficient personnel nor the necessary expertise to carry out law enforcement (Intelligence Project on Environmental Crime, 2015).

Even in places with specialised units and suitably qualified staff, environmental crime may still not be dealt with effectively. For instance, in Bangladesh police are empowered to ensure that people have a clean and healthy environment, with specialised courts for environmental crime cases (Faroque and South, 2022). However, police are not able to execute their powers due to a complicated mix of political and economic opposition as well as poor coordination between ministries. Thus, progressive development has produced poor results (i.e., few prosecutions and convictions). The situation is similar in Latin America where:

*‘Chile, Costa Rica, Brazil, Mexico, Peru, and Bolivia—have separate courts or court branches for environmental cases. Peru established three high-level courts covering mining, energy, and fishers and manufacturing. In July 2016, Guatemala began to create two more environmental courts. In these two and in every country, such judicial agencies are supported by many nonjudicial bodies. Environmental ministries, which are gradually being separated out from larger ministries, provide regulations, funds, and policy development’ (Ungar 2017: 66).*

Yet, a general absence of clarity in the legislation as well as poor financial and human resources means that prosecutions and incarceration remain rare. ‘Instead of prison, civil law sanctions – fines, confiscations, permit suspensions, and obligatory repairs – are used almost exclusively, but even those measures are usually unenforced’ (Ungar 2017: 22).

## 2.4 Enforcement

If information is lacking on environmental crime legislation and its implementation, there is perhaps even less data on its enforcement. Limited material exists about: the agencies tasked with enforcing environmental legislation; the number of cases, arrests and prosecutions; the type and length of sentences given; and offenders’ profiles. As Ungar (2017: 65) notes ‘comparative and comprehensive scholarship of how well environmental rules are prosecuted has not grown beyond a small body of work’. However, his work has shed some light on environmental prosecutions in Latin America. For instance, Ungar (2017: 67) collated the specialised units in Latin American countries.

**Table 1. Primary Environmental Enforcement Agencies in Latin America, by Country, 2015**

Country	Police	Criminal Justice Units
Argentina		Unidad Fiscal de Investigación en Material Ambiental
Bolivia	Policía Forestal y de Medio Ambiente	
Brazil	Unidad do Polícia Federal	Ministerio Público
Chile	Jefatura Nacional de Delitos Contra Medioambiente y Patrimonio Cultural	
Colombia	Policía de Medio Ambiente	Unidad Nacional de Fiscalías de Delitos contra los Recursos Naturales y el Medio Ambiente
Costa Rica		Fiscalía Adjunta Agrario Ambiental
Dominican Republic		Procuraduría para la Defensa del Medio Ambiente
Ecuador	Unidad de Protección de Ambiente	Fiscales de Medio Ambiente
El Salvador	División de Medio Ambiente	Unidad de Medio Ambiente de la Fiscalía General
Guatemala	Unidad Ambiental, Ministerio de Seguridad	Fiscalía de Delitos Contra el Ambiente
Honduras		Fiscal Especial del Medio Ambiente
México		Fiscalía Especializada para la Atención de Delitos Ambientales
Nicaragua		Procuraduría Nacional para la Defensa del Medio Ambiente y Recursos Naturales
Panamá		División de Delitos Ambientales, Dirección de Investigaciones Judiciales
Paraguay		Unidad Fiscal de Delitos Ambientales
Perú	Policía del Medio Ambiente	Fiscales Especiales del Medio Ambiente
Uruguay		
Venezuela		Dirección de Defensa del Ambiente y Delito Ambiente, Ministerio Público

Source: Ungar, 2017.

Despite these laudable efforts, 'environmental enforcement and prosecution throughout the region remains ad hoc, localized, unrealistically ambitious, and more reactive than preventative' (Ungar 2017: 69). In Argentina, for example, Weis (2019) notes that only 5 of the 1 254 environmental crime cases between 2000 and 2008 ended in convictions and the state's lack of support for environmental prosecutions is obvious, in that the government was driving investigations for less than 10 % of cases between 2010 and 2016.

Even in the Global North, which supposedly has more resources (though as discussed above this is still not enough), data related to environmental crimes' enforcement is often not available. Furthermore, research from the EFFACE project revealed:

*'on problems in the enforcement of environmental laws and, therefore, problems leading to environmental crime. Problems identified included: • Poor framing of legislation leading to problems for enforcement authorities. • Under-resourcing of enforcement authorities. • Lack of sufficient powers for enforcement authorities. • Lack of sufficient sanctions. • Overwhelming drivers for illegal activity which enforcement authorities find difficult to counter' (Farmer et al 2018, p.18).*

Eurojust (2014) found that a perceived lack of seriousness led to EU Member States having very few environmental crime cases, despite general recognition that there was a problem with environmental crime and cases being underrepresented or underreported. When cases did arise, EU Member States did not effectively coordinate responses among local, regional and national authorities (European Commission, 2017). Furthermore, within the EU, Hall and Wyatt's (2017) study analysed existing environmental crime and prosecution data, concluding that gaps and inconsistencies do exist. The report examined available information for wildlife crime, chemical and water pollution, waste, as well as sanctioning and judicial practice across the EU. In summary, wildlife crime data, which includes only trafficking, is recorded less than other environmental crimes and whatever data does exist is scattered and difficult to compare. Moreover, chemical pollution carries no centrally agreed definition, which hinders collection of case information and enforcement of pollution offences (Hall and Wyatt, 2017). 'It is clear that the lack of joined up thinking and common standard of regulation and enforcement across EU jurisdictions is in fact facilitating the continuation and escalation of the problems raised by waste trafficking and illegal dumping' (Hall and Wyatt, 2017: 8). As with chemical pollution, waste does not have a universal definition so as to facilitate effective data collection or enforcement. Moreover, what is regarded as waste in one geographic location may be classified as a resource elsewhere.

Regarding sanctions for environmental crimes, in the USA, where more studies have been conducted, it is concluded that while harsher criminal penalties do indeed deter reoffending, illegal activities continue simply because there is a very low probability of being caught (Lynch et al, 2016). In the EU context, there is some information about the effectiveness of sanctions, but no consensus on which sanctions are successful in deterring environmental crimes and/or reducing reoffending (Rosell and Banqué, 2015). The EFFACE study recommended improving enforcement, cooperation and data collection (Faure et al, 2016). Despite the EU's Environmental Crime Directive 2008/99 having provided a basic framework regarding environmental crime, there remains significant differences in the severity and type of sanctions used by Member States (Rosell and Banqué, 2015). For example, '[t]here are indeed substantial differences with respect to what the law defines as maximum penalties for various environmental crimes in Member States' (Gerstetter et al, 2016: 32). Punishments vary between: fines of EUR 25 to as much as five years prison in Poland; fines of EUR 800 to EUR 1 660 000 in Slovakia; and imprisonment of up to 12 years in Slovenia (see table 4 in Gerstetter et al, 2016). 'The data indicates that fines are by far the most frequently used criminal sanction [in the EU] and that on average these are still of a relatively low level' (Hall and Wyatt, 2017: 9).

## 2.5 Corporate governance

Reports on environmental crime do not appear to address corporate offending specifically, despite evidence indicating the need for governmental corporate oversight (see Section 1) (see inter alia Hall and Wyatt, 2017; Tombs, 2013; Tombs and Whyte, 2014; 2015). For example, UNEP's (2019) assessment of the Environmental Rule of Law does not address how corporations are included within environmental frameworks. Corporate due diligence and corporate accountability affect

environmental as well as economic and social progress in developing countries, hence their ability to achieve Sustainable Development Goals (SDGs). In some developing countries environmental criminality is a growing threat not only to SDGs, but also implementation of the Paris Agreement and UN Convention on Biological Diversity. Furthermore, states have the 'the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction' (UN, 1992, Art 3) and hence the environmental rule of law and due diligence needs to be conceptualised beyond country borders (Faure et al, 2016). Yet,

*'In the context of violent landscapes without much government presence, the impact of due diligence programs and certification is limited because there are many ways to launder. It is often very difficult to find out whether companies actually comply; they regularly collaborate with corrupt officials or criminal groups to camouflage the illegality. Transparency along the chain is the key to the solution, but it can only work with a solid system of controls from non-corrupt entities, which is often not the case'*<sup>6</sup>.

Even when corporations are held to account in the courts, corporations do not necessarily abide by courts' decisions. The most infamous case is perhaps the Chevron case in Ecuador, exemplifying the immense economic power and lack of responsibility of a multibillion oil company, which has aggressively failed to respect the damage award of USD 9.5 billion issued by Ecuadorian courts and respect the environmental rights of the indigenous population living midst the polluted ecosystems for decades (Yeager and Smith, 2017).

Another issue not explored in UNEP's (2019) consideration of environmental rule of law is the role and implementation of liability for environmental harm. As Phelps et al (2021) note, such liability is almost completely lacking from countries with high levels of biodiversity, particularly those in the Global South. Perhaps Peru is an exception to this, where there is strict liability (Collyns, 2022), but nevertheless the country has not managed to bring to account those businesses which are responsible for environmental crimes. The same is predicted to be the case for the ongoing oil spill north of Lima, suspected of having been caused by the Spanish company, Repsol (Collyns, 2022). The new proposed EU Environmental Crime Directive specifically addresses the offending of 'legal persons' in Articles 6 and 7. The proposal includes liability of legal persons when offences are committed:

*'for their benefit by any person who has a leading position within the legal person, acting either individually or as part of an organ of the legal person, based on: (a) a power of representation of the legal person; (b) an authority to take decisions on behalf of the legal person; (c) an authority to exercise control within the legal person' (European Commission, 2021: 34).*

Liability includes the lack of supervision or control of natural persons and does not exclude natural persons from criminal proceedings. The geographic location of these offences perhaps needs further clarification or harmonisation with other EU proposals on due diligence (see Section 4.2 Recommendations).

In sum, not enough is known about how environmental crime is responded to around the world and furthermore there is little consolidated information concerning its legislation and implementation. Studies indicate a persistent problem of countries not collecting, managing or using the information they do have about environmental crime, partly due to the insufficient allocation of financial and

<sup>6</sup> Expert consultation with Dr Daan van Uhm (Utrecht University, Utrecht)

human resources. This leads to low levels of enforcement, at a time when there needs to be much more particularly in regard to corporations. As mentioned earlier, a number of countries are responding to environmental crimes and Section 3 highlights some examples of good practice and lessons learned.

### 3 Entry points, best practices and lessons learned to address environmental criminality

This Section comprises a series of short case studies on each of the environmental crimes referred to in Section 1 taken from various developing countries where significant problems exist.

#### 3.1 Colombia and wildlife crime

Colombia is one of the most biodiverse countries in the world, where wildlife is seen not only as part of deeply culturally and historically embedded trade, but also of value for a range of purposes (Sollund, 2019). The consumption and exchange of wildlife go back thousands of years, with the commercialisation of wildlife dating from at least the 15<sup>th</sup> and 16<sup>th</sup> centuries, largely coinciding with colonialism (Rodríguez and García, 2008). Historically, the export of wildlife was an important source of income for Colombia. It constituted 30 % of all exports in 1870 (Vergara in Mancera and Reyes, 2008: 4621). Indeed, aquatic mammals were hunted so intensely that numbers never recovered (Mancera and Reyes, 2008). Furs of felines, birds, primates and ornamental fish were exported on a large scale from 1940 to 1970. CITES exports are still regarded as important for the Colombian state budget (e.g., the trade in the skins of farmed reptiles (Sollund, 2019)). As with many other countries, Colombia has a complex legislative system governing wildlife trade and trafficking, the latter being both domestic and transnational, moving across borders to neighbouring countries, between rural areas and cities as well as by air often to the USA and Europe.

The Colombian legislation concerning environmental crimes was amended in July 2021, now named '[\*Título IX, De los delitos contra los recursos naturales y el medio ambiente\*](#)' [About the crimes against natural resources and the natural environment]. Illegal hunting is now punishable with up to 54 months in prison and a fine of 935 minimum monthly salaries (in Colombian pesos), while wildlife trafficking is punishable with up to 135 months in prison and a fine of up to 40 000 minimum monthly salaries. The intention of this new legislation was to join and increase penalties for environmental crimes, including [\*ecocide\*](#) which is punishable with 135 months in prison and a fine of up to 18 759 minimum monthly salaries. This change in legislation indicates how seriously environmental crimes are now being regarded.

As highlighted in Section 1.1.1, wildlife trafficking can interface with legal wildlife trade and for many categories businesses and corporations play significant roles in facilitating and/or perpetrating the crime. In the case of Colombia, the role of corporations is implied from the types of wildlife trade and trafficking that are taking place, which include:

- Pet trade – for instance, parrots, sloths and primates;
- Animal experimentation and biopiracy<sup>7</sup> – Primates have formed part of large-scale trafficking to Colombian and western laboratories for biomedical research. In the Andean region, Amphibians are used to find toxins and metabolites by the pharmaceutical industry.

<sup>7</sup> Biopiracy denotes the immoral appropriation of biological resources committed by organized groups, such as agrochemical and pharmaceutical multinational corporations (South, 2007).



- Clothing and fashion (furs and skins) – Reptile skins that are exported illegally have been seized in Spain, Germany and the USA.
- Wild meat: Icoatea turtles, Iguana eggs, Capybaras (chigüiro) and eagles are hunted and used for food, considered as ‘white meat’ and thus ‘allowed’ in festive seasons. People also hunt armadillos, large rodents and monkeys for consumption.
- Handicraft/Cultural expressions – Turtles, conchs and corals are used for jewellery, combs and musical instruments.
- Ritual magic – Serpents are used in ritual magic (Uribe, 2003). Rattlesnake tails are used in amulets. Owls are trafficked as they are thought to bring luck.
- Traditional medicine – Raptors’ meat (e.g. eagles and hawks) is regarded as aphrodisiacal or believed to possess special properties. Vultures’ blood is believed to cure asthma and cancer whilst bear fat and river dolphin penises are used in medicines (Alves and Rosa, 2008).
- Captive breeding – Zoocriaderos (animal breeders) buy wildlife for breeding and selling purposes.
- Selfies – A category that has exploded more recently is the use of free-born animals for people to pose with in their selfies (See below for best practice).

The complex legislative regime is enforced by a collaboration of authorities from the Ministry of the Environment and Sustainable Development, 34 autonomous regional corporations, the police and the DIJIN (*La Dirección de Investigación Criminal e INTERPOL*). The existence of legislation concerning CITES does not guarantee that the legislation is enforced. Goyes and Sollund’s (2016) analysis of CITES implementation in Colombia (and Brazil), based on interviews with environmental authorities and experts, revealed for example that despite there being many laws (or even perhaps because of it), they were not clear either to the enforcement authorities or the general public, due to their complexity and variations. Another problem is that prosecutors are unaware of the legislation that is in place and consequently they fail to see wildlife trafficking as a serious crime; it is simply something ‘people have always done’, as said in interviews with environmental authorities and NGOs, such as TRAFFIC<sup>8</sup>. Crimes against animals are by many regarded as misdemeanours rather than serious offences, due to the general objectification of animals in most societies, supported by cultural practices (Sollund 2019). Hence, if offenders are punished at all, it takes the form of a fine, the size of which depends on the graveness of the crime (Goyes and Sollund, 2016). Although in current legislation there exists the possibility for imposing both strict prison sentences and large fines, up to 2016 this was more possibility than actual practice. It remains to be seen, though, whether or not legislative changes in 2021 will also imply stronger prioritisation in the application of more severe punishment for these crimes. As noted above, fines tend not to be a deterrent for corporate offenders, who most often are not held individually accountable. Law enforcement authorities are not alone in trying to tackle wildlife trafficking in Colombia. Civil society also plays a part.

<sup>8</sup> See [TRAFFIC | America Office](#)

### 3.1.1 Entropika – an example of best practice concerning the prevention of wildlife crime in Colombia

Entropika is an NGO run by primatologist Dr. Angela Maldonado, who has been working in Leticia, where Colombia borders with Brazil and Peru, in order to stop the exploitation of night monkeys for malaria experimentation, with which Dr. Manuel Elkin Patarroyo<sup>9</sup> has been active since the 1980s (Goyes, 2015). Maldonado has been involved in a number of lawsuits aimed at stopping Patarroyo's environmentally harmful activities, which have caused suffering to approximately 15 000 CITES-listed primates abducted from Colombian forests. When the monkeys became scarce in Colombia, they were then taken from Peru and Brazil without the required CITES permits. Following Patarroyo's experiments, the monkeys were released back to nature, but often not into their own habitats and with illnesses caused by the experiments. According to Goyes (2015), monkeys released from the *Fundación Instituto de Inmunología de Colombia* (FIDIC) facilities had lost one-fifth of their original body weight. Maldonado and Peck (2014) observed that local people reported finding the carcasses of owl monkeys close to their crops. The monkeys had tattooed numbers on their legs, laboratory codes used during the experiments.

Local people were recruited by the laboratory to capture the monkeys in exchange for a small monetary reward. Worse still, in order to catch the monkeys, these impoverished people would cut down numerous trees; thus, abducting the primates also caused deforestation and destruction of habitats. In 2012, Fundación Entropika was instrumental in helping ensure revocation of the FIDIC biomedical laboratory's permit, which had been granted for experimentation on night monkeys related to the development of a malaria vaccine. By 2015 this action had effectively stopped the legal and illegal trade of more than 3 000 monkeys, as well as saving around 20 000 mature trees.

[Entropika](#) monitors and campaigns against wildlife trafficking between Colombia, Brazil and Peru, particularly against the use of wildlife for 'selfies' in the tourist industry. They advocate the enforcement of domestic environmental legislation and CITES, cooperating with environmental authorities and nature conservation organisations such as the International Union for the Conservation of Nature. In order to prevent wildlife trafficking, Entropika conducts capacity building and educational programmes for indigenous communities, to provide them with alternatives to wildlife trafficking. For example,

*'Entropika has helped implement creative and sustainable economic alternatives: training in the elaboration of essential oils, soap and shampoo, made from sustainably extracted forest products, in three Colombian communities focusing on vulnerable groups such as women and elders. Entropika's ongoing projects include improving drinking water, scientific research, documenting Tikuna traditions and recording the knowledge of the wise elders of the community, reinforcing international wildlife trade regulations, and developing conservation strategies.'* (The Living Rainforest, 2022)

As a consequence of Maldonado's work in Entropika to save non-human animals from the wildlife trade, she has been a victim of a number of death threats, as a result of which she has received assistance from the Civil Rights Defenders' Emergency Fund (Civil Rights Defenders, 2020). According to a report from Global Witness<sup>10</sup>, Colombia is the world's most dangerous place for environmental defenders, with 65 defenders being killed in 2020. The consistent threat to these

<sup>9</sup> Since the 1980s, Dr. Manuel Elkin Patarroyo worked at the *Fundación Instituto de Inmunología de Colombia* (FIDIC), where he conducted laboratory experiments on primates trying unsuccessfully to develop a malaria vaccine.

<sup>10</sup> Global Witness, [Last line of defence](#), September 2021.



people is a reason for using Entropika as an example of the dangers such activists face as well as the importance of their work in protecting the natural environment when states fail to do so. The role of NGOs, such as Entropika, TRAFFIC, WWF, Greenpeace, IFAW and many others is extremely important, both in revealing crimes against nature, but also in suggesting measures to combat such crimes.

Supporting NGOs such as Entropika not only helps to prevent wildlife trafficking and contributes to nature conservation, but it also supports human rights by improving the living conditions of local communities. Entropika's work underlines the importance of a holistic approach; wildlife cannot be saved unless the people who are forced to exploit animals in an effort to secure their own survival are provided not only with alternatives to wildlife trafficking, but also improved living conditions. Where this has already happened, local communities are better equipped to resist offers by intermediaries linked to corporations, who are still seeking recruits for wildlife abduction.

## 3.2 Indonesia and forest crime

Indonesia has a tropical forest area of more than 120 million hectares, the most extensive in Asia, and the world's third largest (Widodo, 2018). It has one of the highest rates of primary forest loss in the tropics (Austin et al, 2019). Forest loss stems from a combination of unlicensed large-scale logging, forest conversion and informal small-scale logging (Hoare, 2015), the last of which is likely to be undertaken by individuals or smaller companies. Unlicensed large-scale logging, albeit decreasing (Hoare, 2015), and forest conversion are likely to involve companies, many of which operate internationally. Estimates suggest that as much as half of the tropical timber from Indonesia is from forest conversion and that at least 80 % of forest conversion for commercial agriculture between 2000 and 2012 was illegal (Hoare, 2015). Large-scale oil palm and timber plantations together contributed more than two-fifths of the nationwide deforestation between 2001 and 2016 (Austin et al, 2019). A 2018 Greenpeace investigation found that 25 palm oil producers had cleared 130 000 hectares of rainforest since 2015. This clearing consisted of illegal deforestation, development without permits, plantation development in areas zoned for protection and forest fires linked to land clearance. According to the World Resources Institute's (WRI, 2019), Global Forest Watch and the Indonesian government, the rate of forest loss declined by 40 % from 2015 to 2018. This positive trend continued in 2020, with a further reduction of 17 % from 2019 to 2020; deforestation in 2020 was at its lowest since 2004 (Rønning, 2021).

Concerning legislation, the [Environmental Management Act of Indonesia](#) (1997) aims at creating an environmentally sustainable development by means of environmental planning policy as well as the rational exploitation, development, maintenance, restoration, supervision and control of the environment. To tackle illegal logging and deforestation, Indonesia has enacted a range of measures, including, but not limited to, the elimination of forest conversion, addressing disputes between indigenous communities and logging companies along with tackling at least some of deforestation's criminal facilitators (i.e., corruption and money laundering). Indonesia's Leuser Ecosystem, home to orangutans, Sumatran rhinos, tigers and elephants, experienced a decline in deforestation in 2021. This decrease was due to better monitoring and greater scrutiny of palm oil producers. However, forest clearing is still taking place inside of palm oil concessions (Jong, 2022). To stop many of the problematic forest conversions, the President of Indonesia ordered a three-year halt to palm oil concessions. Greenpeace International (2018) has pointed out weaknesses in this moratorium: it does not prevent the allocation of new concessions on the millions of hectares of natural forest in areas controlled by local governments; it does not prevent companies clearing forest and developing peatlands within existing palm oil concessions; it is in the form of a

Presidential Instruction, which is not legally binding on government departments or local officials; and there are no sanctions for non-compliance.

In 2013, the Indonesian Constitutional Court affirmed the constitutional rights of Indigenous Peoples to their land and territories, including forests (Mikkelsen, 2014) with a landmark ruling recognising their customary land rights (Hoare, 2015). To support Indigenous land rights, the Indonesian government partnered with the World Resources Institute on the One Map initiative. The team of Global Information Systems experts, lawyers, conflict specialists and researchers work with civil society organisations, village leaders, Indigenous Peoples and company representatives to create a single, indicative map as the basis for solution-oriented discussions (WRI, 2017). However, the Secretary General of the Indigenous Peoples Alliance of the Archipelago revealed that the One Map portal is accessible only to government authorities and does not include maps created by indigenous groups (Chandran, 2021).

Other measures have been taken to reduce forest crime in Indonesia, by targeting activities that facilitate illegal logging and deforestation. In particular, corruption and financial crime in the forestry sector have been addressed through Indonesia's Anti-Corruption Commission (KPK) as well as the Financial Transaction Reports and Analysis Centre (PPATK). According to Hoare (2015), because of their autonomy and broad mandate, which includes the ability to initiate prosecutions, both of these agencies have been able to conduct wide-ranging investigations and secure high-profile convictions. Yet despite the impact of the KPK specifically, there have been a number of attempts to reduce its powers and undermine its work. Police investigations into KPK officials were seen as one such an attempt, illustrating how much continued political support is needed for the work of such agencies (Hoare, 2015). Additional measures have targeted money laundering. An UNODC training course in 2012 was attended by staff from the PPATK and KPK, ranging from federal to local levels. Techniques learned on the course were applied to detect, investigate and prosecute illegal logging. The Financial Investigative Units later detected highly suspicious transactions, which led to the conviction of a timber-smuggling suspect who was sentenced to eight years imprisonment with evidence showing how USD 127 million had passed through his accounts (Nelleman et al, 2016). More recently, the 'EU-Indonesian Security Policy Dialogue 2020' foresees efforts to enhance cooperation between Indonesia, the EU and EUROPOL. If circumstances allow, an Indonesian delegation will visit the Hague and Eurojust in June 2022 (personal communication with EU delegation to Indonesia).

Indonesia has a history of close collaboration with the EU and wider European Economic Area (including Norway) on approaches to stem illegal timber trade. The FLEGT Action Plan supports timber production countries, such as Indonesia, in their legal timber operations through VPAs (EU FLEGT Facility, n.d.). Indonesia signed a VPA in 2013, which entered into force in 2014 (Hoare, 2015). According to the EU delegation to Indonesia (personal communication), Indonesia has an extensive network of independent monitors that are tasked with exposing non-compliance, under the VPA. When such cases are revealed, they are then posted on Ministry of Environment and Forestry online platform and subsequently addressed through administrative and criminal justice channels. This implies a public shaming, which can carry a strong deterrent effect.

Civil society acts as a monitor for the Timber Legality Verification System (SVLK) that has arisen from FLEGT in Indonesia (similar legislation exists in Australia and the USA), but there is no formal mandate as to how this should take place. There are five aspects to the legality standards, each with its own principles, criteria, indicators and verifiers. FLEGT licensing started in 2016 based on five aspects: (i) concessions within production forest zones on state-owned lands; (ii) community plantation forests and community forests within production zones on state-owned lands; (iii)

privately-owned forests; (iv) timber utilisation rights within non-forest zones on state-owned lands; and (v) primary and downstream forest-based industries (Tacconi et al, 2016). There is also a mechanism through which complaints can be submitted and addressed. The SVLK is contained in a database, where licenses are recorded, and this is linked to both the trade and customs databases in Indonesia (Hoare, 2015).

Hoare (2015) positively evaluated implementation of the Indonesian VPA as promoting not just legal compliance but also sustainable management of the country's forests. In Indonesia, the SVLK assesses whether or not a company is complying with the five aspects mentioned above, which are grounded both in the legality definition negotiated under the VPA and the rigour of a company's supply chain. Within the VPA, timber is deemed as legal 'when its origin and production process as well as subsequent processing, transport and trade activities are verified as meeting all applicable Indonesian laws and regulations'. This applies to companies producing plywood, sawn wood, woodchips, veneer and laminated veneer timber products as well as companies producing furniture, woodworking products, along with pulp and paper (Hoare, 2015). However, concern has been raised that the SVLK would verify as legal any timber which has been: produced under concessions for which harvest rights were allocated through corrupt processes; harvested without indigenous and local communities having been adequately consulted, as required under law; and taken from land where there has been illegal forest conversion (Hoare, 2015; unpublished). However, allegations of malpractice continue, with continuing concerns about community rights and compliance with forest management provisions (Hoare, 2015; unpublished). There is also a risk of money laundering and transfer pricing by companies within these supply chains; these groups have complex corporate structures, which include tax havens (Hoare, 2015; unpublished).

However, while there is still room for improvement, according to the EU delegation to Indonesia (personal communication):

*'the VPA has been instrumental in supporting improved forest governance in Indonesia. Under the VPA, Indonesia has an extensive network of independent monitors that are tasked with exposing noncompliance. Such cases are posted on the Ministry of Environment and the Forestry online platforms and addressed through administrative and criminal justice channels. This we regard as important in order to create deterrence'.*

In addition to the EU FLEGT agreement, Indonesia has negotiated collaboration with Norway under a bilateral agreement established under REDD+<sup>11</sup> (Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks in Developing Countries), through Norway's International Climate and Forest Initiative. This agreement took the form of a results-based payment of USD 1 billion from Norway to Indonesia for the latter having succeeded in reducing greenhouse gas emissions by 11.2 million tons of carbon dioxide equivalent (Jong, 2021). However, as the Jakarta Post reported, Indonesia later withdrew from the agreement, which we confirmed in an interview

<sup>11</sup> REDD + is an essential part of the global efforts to mitigate climate change. FAO (Food and Agricultural Organisation of the UN) supports developing countries in their REDD+ processes and in turning their political commitments, as represented in their Nationally Determined Contributions, into action on the ground. See [REDD+ Reducing Emissions from Deforestation and Forest Degradation | Food and Agriculture Organization of the United Nations \(fao.org\)](#).

with a Norwegian senior advisor from the Ministry of Climate and Environment who was involved in the negotiations<sup>12</sup>.

New markets for timber, such as in Japan and China, have, though, reduced any impact from policies introduced by the EU and others. Half of all illegal wood-based products trade is destined for China, the largest consumer as well as a major processing hub. Domestic demand for timber has also increased, providing a market for both legal and illegal timber (Hoare, 2015). Thus, EU efforts to reduce environmental crime, such as illegal logging and timber trade, perpetrated by EU corporations must take place simultaneously with initiatives not only to reduce the overall consumption of forest products but also to advocate for global legal standards covering the timber trade.

Regarding cooperation between Indonesian authorities and international policing organizations, we were informed in personal communication from the EU delegation to Indonesia;

*'that until March 2019, EUROPOL had a liaison officer in Bangkok. His office was located in the premises of INTERPOL Bangkok. Since his departure, he was never replaced. This is regrettable and certainly not opportune from a police and operational point of view. Therefore, since the 'EU-Indonesian Security Policy Dialogue 2020' (from November 2019), there is a deliverable concerning the enhanced cooperation between Indonesia and EU / EUROPOL, more specifically with the Government / BNPT (Anti-Terrorism Agency of Indonesia). To realise this deliverable, a high-level visit to EUROPOL in The Hague (NL) from the Indonesian Authorities is planned. Due to COVID-19, the deliverable was postponed till the 'EU-Indonesian Security Policy Dialogue 2022' (from November 2021). This visit should be scheduled before the end of June 2022, if the COVID-19 situation allows it. To enhance Indonesian cooperation with EUROJUST, the visit to EUROPOL will be combined with a visit to EUROJUST'.*

### 3.3 Ghana and fishery crime and waste

The following two-part case study of Ghana takes an in-depth view at fisheries crime and waste.

As a West-African country with a 560 kilometres coastline, Ghana is heavily impacted by IUU fishing that does not comply with national, regional, or international fisheries' conservation management legislation or measures (Newman, 2015). IUU fishing has decimated Ghana's fish stocks, threatening particularly the pelagic species, of which annual landings have declined from over 250 000 tonnes in the late 1990s to less than 50 000 tonnes in 2017, despite increased fishing activity (EJF, 2017). The Environmental Justice Foundation<sup>13</sup> warned in 2017 that the small pelagic fishing industry could collapse within three to seven years, in the absence of robust management interventions. Ghana's fish stocks are declining because of weak domestic governance and law enforcement. Consequently, the World Bank ended its West Africa Regional Fisheries Project with Ghana because there was no evidence of any political commitment for change (EJF, 2017; 2018). Furthermore, Ghana has been given IUU 'yellow cards' in 2013 and 2021 by the EU for failing to reduce IUU fishing and displaying weak enforcement of their legislation (European Commission, 2021a; EJF, 2021). This is despite the introduction of significant reforms in Ghana's legal and administrative framework to

<sup>12</sup> Diverging views on the timeline of payments and implementation as well as how the money would be spent and whether or not Norway would have some direct involvement are all issues that appear to have derailed the agreement. Furthermore, according to the interviewee, the Indonesian government felt that Norway was trying to interfere unduly with internal affairs.

<sup>13</sup> The Environmental Justice Foundation is an NGO working with documenting environmental crimes and breaches of human rights. They are located in 11 countries. See [Environmental Justice Foundation | Who we are \(ejfoundation.org\)](https://www.ejfoundation.org/)

meet its responsibilities as a coastal, flag, port and export state (Kurekin et al, 2019, EJP, 2021). IUU fishing has also continued despite the Fisheries Enforcement Unit of the Ministry of Fisheries and Aquaculture development in Ghana intensifying its presence not only at sea and during quayside boarding, but also by inspecting fishing operations in Ghana's exclusive economic zone (Kurekin et al, 2019).

Ghana's Fisheries Act makes the act of '*saiko*' illegal. *Saiko* refers to the transfer of fish at sea from industrial trawlers to local canoes. These catches contain small pelagic fish, such as sardinella and chub mackerel, that are traditionally the catch and livelihood of artisanal fishers, in high demand for local consumption. *Saiko* is forbidden because the catches include juvenile fish that have not and will never reproduce. In combination with the sheer number of fish taken, this type of fishing is simply unsustainable. The fish are frozen in blocks and shipped to the harbours in canoes (EJP, 2017). *Saiko* is punishable with fines between USD 100 000 and USD 2 million. The minimum fine increases to USD 1 million if catches involve juvenile fish or illegal fishing gear (EJP, 2017). However, fines for illegal fishing are often below the minimum stipulated by Ghanaian legislation and do not meet Ghana's responsibilities under international law. The sanctions imposed by Ghana on vessels engaging in or supporting IUU fishing activities are ineffective, inadequate and insufficiently constraining as they do not keep vessels from (re)offending (European Commission, 2021a; EJP, 2020). The Chinese trawler fleet operates secretly, using a network of front companies to hide the true beneficiaries of illegal fishing activities, thereby impeding effective investigations, avoiding prosecution and consequently circumventing sanctions (EJP, 2020).

Moreover, according to Ghana's Fisheries Act (2002)<sup>14</sup>, industrial and semi-industrial fishing vessels under the Ghanaian flag cannot have foreign ownership (EJP, 2018) (except for tuna vessels), a government effort to combat flags of convenience (see Section 1.1.2). There is also a moratorium in place preventing new industrial trawlers<sup>15</sup> from being registered as a further measure to prevent unsustainable fishing (EJP, 2018). This act is intended to ensure that any financial benefits from these fisheries flow to Ghana, rather than being sent overseas. Despite this, Chinese vessels are deeply involved in Ghanaian fishing; during 2015, Chinese nationals captained over 95 % of trawlers with active licences to fish in Ghanaian waters (EJP, 2018). Lack of transparency allows Chinese operators to use Ghanaian companies as 'fronts' to: import their vessels; register and obtain fishing licences; and set up opaque corporate structures to circumvent the law. These vessels conduct both trawling and *saiko* (EJP, 2017; 2018; 2021). As *saiko* catches are not reported, this represents a significant loss of state revenue in terms of taxes on landings and fishing licence fees. It is estimated that Ghana is losing out on as much as USD 23.7 million in annual revenues (EJP, 2021). It is important to note that China cracked down on illicit activities of Chinese operators in West Africa, withdrawing subsidies and fishing licences from three Chinese companies involved with illegal fishing in the region (EJP, 2018), though the long-term impact is not yet known (EJP, 2021).

Chinese vessels not only empty Ghana's seas and rob the government of revenues but they also deprive the Ghanaian population of their primary protein diet. Moreover, Chinese captains are responsible for severe breaches of human rights against workers on board their vessels (EJP, 2021), which include *inter alia*: regular application of violence against the workers, often by use of weapons; lack of food and water; no beds or sanitary facilities; lack of payment; sleep deprivation;

<sup>14</sup> The act was amended in 2014 and 2015. See [Ghana updating its laws, adding patrol boats to fight IUU fishing | SeafoodSource](#).

<sup>15</sup> Industrial trawlers employ bottom trawling, a fishing method in which a large net with heavy weights is dragged across the seafloor, scooping up everything in its path, destroying ecosystems.



and the absence of work contracts. These crimes combine with the IUU fishing as well as the dumping of fish and illegal equipment (EJF, 2021).

In addition to Ghana falling victim to IUU fishing, the country also suffers from being a destination for hazardous e-waste from the EU, the USA and increasingly non-Organisation for Economic Co-operation and Development (OECD) countries (Bisschop, 2016; Oteng-Ababio et al, 2020; Platform for Accelerating the Circular Economy, 2019). E-waste exports from the EU (and the USA) are hard to control, although it is known that Antwerp is a key point of departure for Europe (Bisschop, 2016). Due to the large amount of goods and shipping companies' reliance on self-regulation and goods declarations, in practice only a fraction of exported goods is subject to control and inspection. The Basel Action Network (BAN, 2018) documented that e-waste delivered to municipal and corporate facilities in a number of European countries for recycling was illegally transported to developing countries, including Ghana. In regard to some of the non-EU e-waste, statistics from mobile phone imports show that four non-OECD countries alone (United Arab Emirates (33.09 %), Hong Kong (21.64 %), China (19.68 %) and India (9.24 %)) accounted for 84 % of total imports to Ghana. Many imports also come from the neighbouring countries of Togo and Nigeria (Oteng-Ababio et al, 2020). According to Oteng-Ababio et al (2020: 11):

*'this interregional trade poses a challenge for the implementation of the new e-waste law. A real threat comes from the issue of free riding of EPR (Extended Producer Responsibility)<sup>16</sup> policies, which comes from imperfect and corrupted officials and market surveillance that allows a sizable black market, smuggling, and counterfeit products to exist'.*

Neither the Basel Convention<sup>17</sup> nor the EU legal framework for waste are interpreted consistently and implemented with the same commitment among all countries involved in the trade. Furthermore, not all countries have ratified the [Basel Convention](#) and its [Ban Amendment](#) (Bisschop, 2016), which is primarily a trade regulation rather than being designed to control illegal trade. Yet, it is challenging to distinguish between *illegal* exports of e-waste to non-OECD countries and legal exports of second-hand electronics. Moreover, even when legislation and technical equipment are in place, customs officials have difficulties in tackling illegal e-waste consignments they inspect when unloading containers. Priority is given to taxing electronics imports rather than checking for e-waste. Hence, there is a continuing problem that seized goods will have to be recycled locally, often ending up in the same system (Bisschop, 2016). Customs operations generally base their risk analysis on trust in corporations and their self-regulation. However, self-regulation cannot address the entire market of waste collection and processing, given the multitude of small-scale actors (Bisschop, 2016).

This problem was evident in the BAN [Basel Action Network] (2018) investigation that revealed illegal trade in e-waste from collection points – both municipal and corporate – in many European countries. The [Bamako Convention](#) that was implemented as a response to the Basel Convention, which encourages parties to enter into bilateral, multilateral and regional agreements on hazardous

<sup>16</sup> a guiding principle for the selection of policy instruments and requires manufacturers to accept responsibility for their products' life cycles (Khan, 2018).

<sup>17</sup> The overarching objective of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (which came into force in 1992) is to protect human health and the environment against the adverse effects of hazardous waste. The Convention aims to reduce the movements of [hazardous waste](#) between nations, and specifically to prevent transfer of hazardous waste from [developed](#) to developing countries. The convention aims to minimize the rate and [toxicity](#) of wastes generated, to ensure their environmentally sound management as closely as possible to the source of generation, and to assist developing countries in environmentally sound management of the hazardous and other wastes they generate. [Basel Convention on the Control of Transboundary Movements of Hazardous Wastes -20113644.pdf \(unep.org\)](#).

waste, is an important alliance in preventing hazardous waste from entering African countries, but it has not yet been ratified by Ghana. Moreover, EU waste legislation is very complex and consequently Member State control agencies may find the legal framework difficult to apply (Bisschop, 2016). For instance, what is seen as waste in Belgium may be regarded as second-hand electronics in Ghana. Bisschop (2016: 35) further finds that:

*'Although the European waste legislation requires sanctions to be set, there are major differences in interpretation and implementation. There is prosecution of waste cases but fines that are imposed for illegal e-waste transports are perceived as too low to be effective and become part of shippers' business plans' (Bisschop 2016).*

Much e-waste can thus circumvent control, be laundered and pass as legal. Viewed differently, violating legislation and incurring any attendant costs from fines is simply the price of doing business.

On the importing side of waste, according to Oteng-Ababio et al (2020), Ghana's e-waste management policy initiative has generated a mishmash of techniques, from development programmes and expulsion from the Agbogbloshie (the largest e-waste dump site in Ghana) to [Act 917](#), concerning hazardous and e-waste. The latter states that any person who *illegally* imports, exports, transports or deals in or deposits hazardous waste can be punished by means of a prison sentence of up to 20 years and/or payment of a fine totalling as much as USD 2 million. Despite such potentially draconian measures, this legislation has nevertheless been criticised for not *banning* the import of hazardous waste (BAN, 2018).

An exploration of Act 917's compatibility with the country's socioeconomic context and basic EPR mechanisms established that both in content and policy discourse Act 917 adheres to EPR principles<sup>18</sup> (Oteng-Ababio et al, 2020). Nevertheless, it is also claimed that this legislation discriminates against a specific segment of the waste sector that engages in reuse, repair, refurbishment and material recovery. This segment, along with others in the waste industry, are supposed to be equals in terms of governance, but in practice are regarded as outcasts from official systems. This non-recognition reflects a need for better appreciation of how complex informality can be, by hiding both its positive linkages and its exploitative tendencies (Oteng-Ababio et al, 2020). Oteng-Ababio et al (2020: 18) conclude that:

*'Our findings remain sceptical about the appropriateness of the new regulation because it assumes formalization of a purely informal system and seeks to create a state-led utopia. Our study sees informality as in part a safety net and a commercial space where commodities are produced by the urban poor and circulate outside dominant capitalist relations'.*

Tension between the formal and informal as well as the legal and illegal probably contribute to the human rights abuses in Ghana's waste industry. Precarious working circumstances for dismantling e-waste in West Africa has frequently been documented (Bisschop and Vande, 2013; Walle 2013; Bisschop, 2016; Oteng-Ababio et al, 2020). Ghana's Agbogbloshie was one of the world's largest dumping points for e-waste with approximately 10 000 people working there (Young, 2019), who frequently suffered from burns, back problems, infected wounds, respiratory problems, chronic nausea and debilitating headaches. Toxins from the e-waste also affected free-roaming livestock

<sup>18</sup> 'Extended producer responsibility is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. Assigning such responsibility could in principle provide incentives to prevent waste at the source, promote product design for the environment and support the achievement of public recycling and materials management goals' (OECD, [Extended Producer Responsibility](#), n.d.)

which enter the food chain, with toxic levels far outweighing limits set in the EU (Oteng-Ababio et al, 2020; Young, 2019). Whilst the Agbogbloshie dumpsite was eventually demolished in July 2021, observations indicate that the informal recycling of e-waste has moved underground to residential areas (Chasant, 2021). Despite the high levels of hazardous pollution, there has been criticism against the decision, as it is perceived to be ‘an economic stupidity’ to throw away e-waste because it generates jobs as people with no other income opportunities may make a living from repairing, cleaning, and selling what others have disposed of, thereby contributing to a vital repair and recycling culture (Oteng-Ababio et al, 2020: 5). Oteng-Ababio et al (2020: 7) claim that the media reports and film from Agbogbloshie in the years prior to its demolition created risks for the vulnerable people for whom such narratives seek to generate sympathy and that the Ghanaian Act 917 concerning hazardous waste is ‘blind’ to humans.

### 3.4 Democratic Republic of Congo: mining and pollution

This is one of the world’s biggest countries, with a population of nearly 90 million people. Located in central Sub-Saharan Africa, the DRC is situated in a biodiversity hotspot as well as land rich in minerals. These minerals include the 3Ts— cassiterite (tin), wolframite (tungsten), coltan (tantalum)—as well as gold, diamonds, cobalt and copper. For decades, the country has been embroiled in armed conflicts, civil wars and oppressive regimes<sup>19</sup>. These conflicts have frequently been connected with mineral resources, leading to the concept of ‘conflict minerals’ (Geenen, 2012; Human Rights Watch, 2005). Indeed, Geenen claims with reference to Ross (2003) that the exploitation of minerals has impeded long-term economic development. In 2019, the UN Human Development Index ranked the DRC’s level of human development at only 175<sup>th</sup> out of 189 countries (UNDP, 2019), which at least in part is likely to stem from the prevalent position of armed groups and organised crime networks that exploit the DRC’s natural resources and people.

In 2015, UNEP-MONUSCO-OESG (United Nations Environment Program-Mission des Nations Unies en République Démocratique du Congo-Special Envoy of the Secretary-General for the Great Lakes Region) (henceforth UNEP, 2015) stated that an estimated 25 to 49 armed groups were active in eastern DRC, each comprising membership ranging from a few dozen people to as many as 1 200. Armed groups steal minerals, act as security guards at mines against other armed groups, or take over artisanal and other mines. About 57 % of mines in eastern DRC are estimated to have an armed group presence (UNEP, 2015). Sometimes, the groups ‘tax’ the mines, meaning that they take a share of the profits in exchange for allowing the mines to operate. The military and police authorities as well as public employees such as mining administrators and magistrates have also been known to claim ‘protection money’ from artisanal miners. Presumably in efforts to protect miners from armed groups, the miners pay corrupt officials by giving them access to a particular mining shaft (even if this shaft belongs to some other miner); the corrupt official then makes money by selling any minerals taken from that location (Geenen, 2012). Transnational organised crime groups then feed illegally mined minerals into legitimate supply chains. These groups appear to fund or support armed groups in the DRC financially through profits gained from mineral smuggling activities (UNEP, 2015). Since such minerals enter the legal industry, there are links to corporations that warrant further exploration.

10 tons of gold smuggled in 2015 at the point of sale was valued at between USD 180 million and USD 450 million, suggesting a possible net income of USD 40 million to USD 120 million per year for organised crime groups or companies involved in gold smuggling. Alarming about 1 % of the total

<sup>19</sup> See the Large Norwegian Encyclopaedia [Webpage](#).



value goes to militant groups who loot villages (UNEP, 2015: 24). The combined value of gold, 3Ts, diamonds, minerals, timber and charcoal extracted from eastern DRC is estimated to be worth between USD 1.2 billion and USD 1.3 billion annually, of which USD 77 million to USD 426 million constitutes income to highly networked transnational organised crime. Half of the profit attributed to smuggled natural resources from the DRC are reckoned to go to organised transnational crime groups outside the conflict zone (UNEP, 2015). These estimated sums have effectively been stolen from DRC, thus reducing the government's ability to support its people.

Illegal mining activities and those of armed, military groups also combine with other environmental crimes. For example, militia groups, such as the FDLR<sup>20</sup>, are involved in controlling mining activities in Eastern Congo as well as ivory trafficking. Some substructures focus entirely on the mining and charcoal trade, while others focus on military aspects and combatants, or the ivory trade. A FDLR substructure has established relations with Chinese crime groups based in Uganda for illegal wildlife trade, particularly in order to traffic ivory across the border. Often local communities need permits from the militia groups in charge so as to engage in deforesting, working in the mines or killing wildlife illegally. The profits from mining, timber and wildlife trafficking have been used to buy arms. Besides crime convergence in the form of controlling multiple trade lines, the infrastructure of militia groups in North Kivu also provides opportunities to combine contraband. For example, at the border with Uganda, ivory is smuggled in timber logs disguised as timber, which makes detection very difficult (Van Uhm, personal communication with authors, see also Van Uhm et al in press).

Due to its history of conflict stemming from mining, the DRC has been the focus of sanctions and resolutions by the United Nations. One such resolution is S/RES/2198 – *the role of transparent and effective management of natural resources as critical for sustainable peace and security, stressing the respect for the Government of DRC's sovereignty but also its responsibility for effective natural resource management* (UNEP, 2015). Such international sanctions and initiatives as well as due diligence and certification schemes have led to a decrease in 3T mining within the DRC and external demand for minerals originating there (UNEP, 2015). However, as UNEP (2015) notes, these efforts have not stopped illegal natural resource extraction, nor the cycle of conflict linked to such extraction. The UN Security Council (2021) reports that armed groups continue to profit from the gold mines, as exemplified by the Mai-Mai Yakutumba militia who tax gold mining sites in the areas of Misisi and Nyange, from which gold is exported to Dubai and Hong Kong. The UN's Group of Experts further found that illicit activities in the 3T sector are continuing. They documented, for example, armed clashes at mines around Rubaya in 2020 and fraud at coltan mines in the area, raising concerns about the effectiveness of government and private sector efforts to address such issues (UN Security Council, 2021). According to an EU delegation to the DRC, later this year will see the launch of a tax collection programme in partnership with the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ):

*'The 4th component of the program will focus on the accountability of the sector and build capacity among local communities and civil society organizations. Addressing their concerns in the context of strategic platforms, we intend to help them to play a concrete role in controlling tax collection. More often than not, mining companies, in violation of DRC's law, fail to consult communities about their prospective mining operations and to maintain constructive dialogue with communities affected by their projects, especially on environmental issues'.*

<sup>20</sup> Democratic Forces for the Liberation of Rwanda. [DRC: Who's who among armed groups in the east - Democratic Republic of the Congo | ReliefWeb](#)

Such governance mechanisms to add transparency and oversight in mining supply chains must be combined with livelihood support programmes for artisanal miners (Geenen, 2012). In the case of the DRC, from 200 000 to 550 000 miners are affected by such sanctions and resolutions; hence their livelihoods need to be considered when developing strategies to tackle environmental crimes, such as illegal mining. In 2018, a modification of a previous law of mining was implemented<sup>21</sup>. Two articles relate directly: protection of the environment (Article 3); and administration of mines concerning the protection of ecosystem services and nature conservation, and the requirement of environmental certification (Article 42). However, we have not been able to establish how strongly this act has been enforced.

As mentioned earlier in Section 1.1.2, mining in general, but gold mining in particular, is a significant source of pollution that threatens the environment surrounding mines, as well as the people who work in mines and live nearby. In fact, mercury-dependent artisanal and small-scale gold mining is the largest source of mercury pollution in the world (Esdaile and Chalker, 2018, see also Veening et al, 2015). Elemental mercury is used to extract gold from ore as an amalgam. The amalgam is then isolated by hand and heated – often with a torch or over a stove – to distil the mercury and isolate the gold (Esdaile and Chalker, 2018). It is often women who are harmed in this process, since it is they who are often in close contact with mercury and other dangerous substances that emanate from that part of the mining process (Grynberg and Singogo, 2021). Mining processes cause a range of disorders including lung diseases and musculoskeletal conditions. A study about the effects of pollution on humans in the DRC also pinpoints the mines as a dangerous source of harmful pollution. Both artisanal and legal mining activities increase exposure to environmental pollutants, which are very likely to present a health risk, which is compounded by the lack of environmental and health protection policies.

In addition to harming humans in the process of extracting gold through the toxins produced in this process, gold mining entails pollution of ground and aquatic ecosystems that first harm the ecosystems, wildlife and consequently the humans who feed on them. In South Kivu's Fizi territory, one of eight in the DRC, the waste from gold panning is directly discharged into the rivers, causing unprecedented mercury pollution. Various investigations have established a link between residents' mercury levels and the contamination of rivers, soils and sediments by the activity of gold washers (Pascal et al in Kanyinda et al, 2020:1). During 2018, researchers found that crabs, fish and molluscs caught in different rivers running through the Fizi territory panning areas had dangerous concentrations of mercury at levels that could easily jeopardise human health.

Urban air pollution in African cities is a key threat to the environment and economy as well as the health and quality of life for millions of humans as the levels of urbanisation, use of motor vehicles and economic activity increase (Tuakuila et al, 2012). Kinshasa is severely affected by environmental pollution from: the burning of fossil fuels, wood and charcoal; motorbikes and motor vehicle exhaust; sanitary landfills; and discharge from industrial, hospital and urban effluents (Kabamba et al, 2021). In Kinshasa, urban water supplies are often contaminated by for instance: the discharge of untreated municipal and industrial effluent; agricultural refuse, leaching from rubbish dumps into surface and ground water; inadequate treatment of sewage and poor waste management (Tuakuila et al, 2012). Polluting is not necessarily a crime, but it does cause significant environmental harm, thereby reducing the life spans and quality of life for millions of people and animals (Walters, 2017), particularly in countries that lack proper environmental legislation and enforcement.

<sup>21</sup> République Démocratique du Congo, [Loi n°18/001 du 09 mars 2018 modifiant et complétant la Loi n° 007/2002 du 11 juillet 2002 portant Code minier](#), JOURNAL OFFICIEL de la République Démocratique du Congo, Kinshasa, 28 mars 2018.

In addition to any implications for people (and the environment) from mining and other pollution, human rights abuses are inflicted, particularly on women, not just by armed groups, but also DRC security forces (UN Security Council, 2021). There are documented cases of sexual violence, such as gang rapes, human trafficking and sexual slavery. Women are also paid less in the mining industry and lack hereditary rights in DRC (Grynberg and Singogo, 2021). The grave situation regarding human rights breaches in DRC, described by Human Rights Watch (HRW) in 2005, still seems to be a matter of serious concern. HRW stated then that the trade in gold is just one example of a wider trend in the competition for resources, resulting in human rights abuses taking place in mineral rich areas throughout DRC. The link between conflict and resource exploitation raises broader questions of corporate accountability in the developing world. As mentioned already, the UN Security Council reported not only that gold was being exported to Dubai and Hong Kong, but also that China is involved in the eastern DRC mining industry (Deutsche Welle, 2022). Several companies are allegedly involved illegally and have reportedly burned the local population's crops (Tasamba and Khaliq, 2021). Thus, corporate links to environmental crimes in the DRC and throughout the developing world are in urgent need of attention.

## 4 Recommendations

These recommendations are drawn from the range of sources outlined in this study's methodology—policy documents, academic studies, several interviews and our original research. Beyond these sources, further investigations must clearly be undertaken in efforts to extend understanding and thereby improve responses to environmental crimes. The recommendations which follow are broken down into policy frameworks, legislative frameworks and implementation, prevention, enforcement and cooperation and communication.

### 4.1 Policy Frameworks

- The EU should provide 'technical and financial support for public agencies [and civil society] tasked with environmental protection in third (in particular developing) countries' (Faure et al, 2016: 31)
- Consider making environmental damage visible within the economy by including costs to the environment as a negative item within Gross Domestic Product (Ruggiero and South, 2013).
- Incentives should be designed which encourage countries to be tougher on environmental crimes (e.g., preferential trade agreements) and motivate companies to apply strict due diligence as well as environmental liability (e.g., tax and investment policies).
- Planned obsolescence should not be allowed (Bisschop et al, forthcoming) and customers should have a right to repair their electronic equipment.
- Stakeholder consultations on initiatives to tackle e-waste and other environmental crimes should be undertaken as the norm. This would ensure a 'uniform platform for all vulnerable groups to become engaged stakeholders; for reshaping and rethinking the e-waste industry potentialities and vulnerabilities, for building stakeholders' resilience and for improving their environmental and health equity' (Oteng-Ababio et al, 2020: 18).
- In efforts to reduce environmental crime, emphasis must be placed on labour rights, including alternative livelihoods where needed, as well as protection from sexual and other exploitation.
- It is important that buzzwords such as 'circular economy' do not just serve to 'greenwash' and thus legitimise the export of e-waste to developing countries.

- Further research is needed to understand the interplay between environmental crime and the European Green New Deal along with regional and international agreements in order to avoid criminal displacement and/or development of new crimes.

## 4.2 Legislative Frameworks and Implementation

- The International Criminal Court should be expanded to cover criminal acts that amount to ecocide.
- The Global Initiative to End Wildlife Crime's efforts to add illicit wildlife trafficking as an additional protocol to the UN Convention on Transnational Organised Crime should be supported in order to strengthen members' abilities to respond to and receive support for tackling wildlife trafficking.
- Rather than regulating trade in wildlife, a new approach to conserving wildlife with external economic and political support to source countries, should be considered.
  - This could include an exploration of whether CITES or a new programme/organisation could fund projects proposed by local, regional and national entities that aim to protect species from exploitation. In this way, genuine help could be provided for endangered species and other creatures to thrive, while providing economic resources to people working to achieve this goal, as demonstrated by the Entropika case. CITES could be one such funding body for the conservation of wildlife, through which NGOs and countries could receive financial compensation for protecting wildlife and thus their ecosystems, rather than treating them as resources.
- The current EU legislative initiative on deforestation should be adopted to limit the placing of deforestation-linked products on the EU market.
  - The proposed legislation includes a prohibition, which will apply to all operators placing relevant products on the market, including EU and non-EU companies, irrespective of their legal form and size.
  - This initiative should be enhanced to include the finance and investment sectors.
- Legal definitions of waste and non-waste should be revisited to eliminate exceptions and loopholes.
- Robust legislation for corporate due diligence and accountability is critical in tackling environmental crime.
  - Due diligence must include requirements to respect the environment and human rights (see UN, OECD, and ILO guides) and require financial institutions to clarify investor's duties as well as those of company boards.
  - The liability needed to ensure corporate compliance should cover all environmental damage or situations where environmental damage is imminent, including any damage caused by authorised activities and/or when the activity undertaken should have been recognised as environmentally damaging. There should be no statute of limitations for penalties.
  - EU companies should be held liable for crimes committed outside EU territory (Faure et al, 2016). Furthermore, measures to impose parent, subsidiary and subcontractor company liability, so that companies may not abuse the system by creating separate legal entities to avoid exposure and responsibility for environmental damage should also be considered.
  - For companies engaging in potentially environmentally damaging activities, there should be a publicly visible register at UN/EU level that monitors the companies' solvency to ensure they can cover the costs of any violations.

- The EU and UN should have an independent authority to monitor environmental liability, which could manage the suggested registry.
- Sanctions should include significant fines, bans from public procurement and public support schemes, as well as disqualification from directorships/company management.
- The European Parliament should keep calling for the framework of environmental liability to include rehabilitation and restoration of the environment to conditions prior to the activity, regardless if the activities are authorised or not. This should be public, enforceable and require 'substantial commitments of time and re-sources to environmental remediation. Harm reduction and a punitive approach can operate in tandem and need not be seen as in opposition' (White, 2017: 130).
- Victims of environmental damage and crime should have access to Union courts; there should be no statute of limitations on seeking redress and financial support should be provided to these victims. Victimisation includes ensuring local communities have been consulted. The [SOLVIT](#) programme could be part of this.
- The 'polluter pays' principle requiring companies 'to integrate (or internalise) the cost of use or degradation of environmental resources' and to repair harm should be firmly embedded in legal systems (Nurse, 2015: 11).
- Traceability needs to be incorporated into all supply chains':
  - An international agreement on Beneficial Owner States (those countries that control most of fish harvesting) should be considered (TMT and C4ADS, 2020). This would define and set out States' responsibilities regarding company structures, including limiting the ability of their nationals to undertake opaque fishing operations and benefit from illegal fishing activities.
  - An electronic submission and validation system around a central certificate that spans across the entire IUU supply chain will help to achieve verifiable traceability (Hosch, 2016).
  - The same is true for minerals and wildlife (including timber).
  - 'No vessel should be allowed to leave port unless it has enough space to store all its rubbish. Mandatory deposit return schemes would ensure that fishers returned used gear to the manufacturers at the end of its life. All nets should be traceable to the boats that use them' (Monbiot, 2022).
  - 'To further facilitate monitoring and enforcement, [fishing] vessels above a certain size and/or operating beyond the jurisdiction of flag states must be required to have International Maritime Organization numbers<sup>22</sup> – as must their owners' (Haenlein, 2017) and these details should be made publicly available.
- The Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937 should be adopted, as this aims to create a transparent and predictable framework for EU companies in regard to human rights and environmental risks.
- Further research is needed on the state of legislation and implementation in the Global North and South regarding environmental crime as well as corruption.

<sup>22</sup> The IMO ship identification number scheme was introduced in 1987, aimed at enhancing maritime safety, prevent pollution and maritime fraud. The implementation of the scheme became mandatory in 1996. In 2013, IMO adopted a resolution to allow the voluntary application of the IMO Ship Identification Number Scheme to fishing vessels of 100 gross tons and above. See [IMO identification number schemes](#).

### 4.3 Prevention

- Punishment for environmental crime must be certain and swift to deter and prevent (re)offending. Furthermore, organisers should be more harshly punished than impoverished participants as it takes more to deter those with greater resources.
- All industrial trawlers should be required to land their catches in authorised ports only; particular attention may need to be paid to Chinese vessels.
- The Integrated System for Surveillance of Illegal, Unlicensed and Unreported Fishing is an efficient and inexpensive system that has been developed for the monitoring of IUU fishing (Kurekin et al, 2019). The use of Earth Observation data should be enhanced and improved to prevent and detect IUU.
- 'To bolster prevention, the exploitation of flags of convenience must be ended. This could be achieved by encouraging flag-of-convenience states to close registries, by requiring coastal states not to issue licences to flag-of-convenience vessels, and by pursuing action by regional fisheries management organisations and international bodies' (Haenlein, 2017).
- The use of Earth Observation data should be enhanced and improved to prevent and detect deforestation.
- Awareness campaigns need to be organised in all countries that are consumers of wildlife and wildlife products, whether in source or recipient countries. Such campaigns need to involve the general public and law enforcement agencies.
- Understanding species extinction and biodiversity loss, as well as pollution and waste should be integrated into schools and general education systems.
- Further research is needed to determine what constitutes good practices and what is effective in reducing (re)offending.

### 4.4 Enforcement

- Law enforcement (police, customs, prosecutors, in addition to judges, etc.) must be able to prosecute both legal entities and natural persons (Faure and Philipsen, 2016; UNODC-WCO, 2015). Not all legal systems recognise both.
- Law enforcement authorities (for all environmental crimes) need more training; increased coordination; multidisciplinary approaches; greater resources to improve data recording; ability to share data as well as good practice and cases; harmonised legislation; powers to confiscate criminal proceeds (Eurojust, 2014); and the capability of disseminating prosecutions and cases publicly (see also Faure et al, 2016). As a good example, during their training judges in Indonesia handling environmental cases are given a 'Green Book', a guide on how to approach environmental crime cases (Hoare, 2015; UNEP, 2014).
- An effective response to environmental crime must be intelligence led, systematic, integrated and synergistic; meaning that cooperation between national and international agencies is systematic and regular in order to ensure cooperative efforts are made to prevent and enforce



these crimes at national and transnational level, such as Operation Blizzard<sup>23</sup> (Sollund and Maher, 2015).

- Stricter law enforcement is needed for illegal logging and land conversion, whether large- or small-scale, and more robust sanctions need to be applied not only for improving deterrence (Hoare, 2015; Hoare, unpublished) but also addressing corruption and laundering.
- According to UNEP (2014), Indonesia has some best practices regarding the decentralisation of issuing permits, with central government monitoring this process and having the power to withdraw the permits.
  - There still seems to be a need for stricter centralised monitoring and control, since small scale logging and land conversion continues to be problematic. This could be achieved by improving the hot line between regional and local authorities with central enforcement agencies, not just for support and guidance, but also centrally determined restricting measures.
- Stricter enforcement to tackle illegal transport and import of e-waste is necessary (BAN, 2018); yet it is vital that the poor people engaged in e-waste recirculation are not 'revictimised', but rather that the people and companies behind this trafficking are targeted.
- The EU needs to enforce the Basel Convention strictly and prosecute violators to an extent that serves as a deterrent and thus prevents the trafficking in worthless e-waste from the EU to the Global South and non-OECD countries.
- The EU Conflicts Mineral Regulation (2021), should be enforced, monitored and assessed, taking steps to ensure that all Member States prepare for implementation and that the import thresholds for EU importers do not exclude the riskiest imports (IPIS, 2021).
- The RFMOs should include 'a centralized law enforcement body, with each member country contributing resources and personnel to the force' (Petrossian et al, 2014: 14).
  - Third party observers together with a mixture of police and coastguards should undertake inspections to help combat corruption.
  - 'Countries with existing but failing catch inspection schemes should be required to have a third party evaluate the measures they have in place, determine where their schemes are failing, and make the necessary improvements before they can renew their membership in an MoU [Memorandum of Understanding]' (for the RFMOs).
  - 'The role of free ports as entry points for illegally caught fish should be minimized. Although free ports are not subject to customs control, taxation, banking, labour, and economic laws, they should still consider checking the provenance of fish that enter their borders. Freeports are meant to provide shelters from civil regulations, not from criminal behaviour' (Petrossian et al, 2014: 14).
- As seen in Colombia, having rescue and rehabilitation centres creates good practice in handling the non-human animal victims when a crime has been committed, in protecting animal rights and advancing nature conservation. Such centres for confiscated wildlife should be regularly inspected to ensure animal welfare along with proper treatment and rehabilitation, secure releases and that they are not re-trafficking wildlife.

<sup>23</sup> See Interpol, [Illicit trade in reptiles: hundreds of seizures and arrests in global operation \(interpol.int\)](https://www.interpol.int/News-and-media/Press-releases/2019/06/03/Illicit-trade-in-reptiles-hundreds-of-seizures-and-arrests-in-global-operation), 3 June 2019.



## 4.5 Cooperation and Communication

The EU as a global leader in tackling environmental issues should use its position in high-level and diplomatic fora to encourage other countries to prioritise environmental crime. For instance:

- The EU should continue to support the rights and safeguards for environmental activists not only to organise protests, but also encourage other countries to do the same.
- The EU should cooperate with NGOs on the ground to deliver capacity building which is sufficient to ensure that e-waste is not collected and dismantled in ways that harm people and the environment (Bisschop, 2016).
- The EU and its Member States should enhance their ability to gather intelligence on illegal exports of e-waste (e.g., requiring e-waste processors to become certified).
- Efforts to collaborate on intelligence and enforcement between the EU and target countries in Africa, Eastern Europe, Latin America and Asia should be enhanced. Such coordination can be achieved via existing programmes and networks, including the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL), ENFORCE and INTERPOL's Environmental Crime programmes.
- Encourage ratification of the Basel Ban Amendment and the Bamako Convention (e.g., the USA).
- Private companies and institutions that generate, process, or monitor e-waste in the EU should utilise GPS tracking to ensure that downstream material flows (business-to-business) are legal.
- Information about EU Regulations should be circulated to all companies operating in high-risk environmental crime areas and compliance must be ensured. Building on successful collaboration with its Timber Regulations, the EU should plan for engagement with countries ahead of any new regulations coming into force (personal communication with EU delegation to Indonesia).
- Importing countries outside the EU should be encouraged to adopt and enforce similar due diligence measures such as China, Switzerland and the United Arab Emirates (EJF, 2018; 2021; Grynberg and Singogo, 2021).
- More states must be persuaded to ratify the Food and Agriculture Organization's Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing, to ensure that no port is used as a shelter for non-compliance. Implementation of the Agreement must also be supported through sustained capacity building in developing coastal and small-island states.

Regarding IUU fishing, numerous non-governmental organisations have studied and recommended ways to combat IUU fishing, which involve better information sharing and collaboration. The U4 Anti-Corruption Resource Centre (2021: 22) has put forward recommendations to:

- 'Support the development of best-practice information and manuals for fishery agents and those overseeing them;
- Encourage improved procedures and oversight of agents, including their approval by an interagency committee to ensure no conflict of interest before being certified to operate;
- Advocate the requirement for agents to be accountable for the operation and performance of fishing vessels that they service;

- Provide information to the fishery industry operators about the role and standard of agents, and make lists of approved agents publicly available’.
- Port personnel need to be made aware of IUU fishing and receive appropriate training (see also Farmer, 2015).
- Overall, cooperation between NGOs, local and central authorities is key and needs to be improved regarding monitoring of environmental crime. For instance, indigenous voices must be heard when collaborating on protection initiatives such as ‘One Map’ in Indonesia (WION, 2021).
- Law enforcement, such as that in Colombia, should engage in public awareness raising activities to help to prevent people from participating in wildlife trade as consumers.

## 5 References

- Alam, S. & Faruque, A. '[Legal Regulation of the Shipbreaking Industry in Bangladesh: The International Regulatory Framework and Domestic Implementation Challenges](#)', *Marine Policy*, Vol 47, 2014, pp. 46-56.
- Austin, K., et al., '[What causes deforestation in Indonesia?](#)', *Environmental Research Letters*, Vol 14, 2019, pp. 1-9.
- Basel Action Network (BAN), '[Holes in the Circular Economy WEEE Leakage from Europe](#)', A Report of the e-Trash Transparency Project, 2018.
- Bisschop, L., '[How e-waste challenges environmental governance](#)', In T. Wyatt, *Hazardous Waste and Pollution: Detecting and Preventing Green Crimes*, Springer, London, 2016, pp. 27-43.
- Bisschop, L., '[Is it all going to waste? Illegal transports of e-waste in a European trade hub](#)', *Crime Law and Social Change*, Vol 58 No 3, 2012, pp. 221-249.
- Bisschop, L., et al., 'Designed to Break: Planned Obsolescence as Corporate Environmental Crime', *Crime Law and Social Change*, forthcoming.
- Bisschop, L. & Vande Walle, G., '[Environmental victimization and conflict resolution. A case study of e-waste](#)', In R. Walters, et al., *Emerging issues in green criminology: Power, justice and environmental harm*, Palgrave Macmillan, Basingstoke, 2013, pp. 34-54.
- Brack, D., *Illegal Logging*, Chatham House, 2007.
- Chandran, R., '[Indonesia's map project ignores indigenous land, risks conflicts](#)', *Reuters*, 31 March 2021.
- Chasant, M., '[Agblogbloshe Demolition: The end of an era or an injustice?](#)', *Muntaka*, 22 August 2021.
- Civil Rights Defenders, '[Natalia Project Participant Angela Maldonado Receives Prestigious Award](#)', 9 October 2020.
- Cohen, M., '[Punishing corporations](#)'. In M. Rorie (ed), *The Handbook of White-Collar Crime*, Wiley, London, 2019, pp. 314-333.
- Colantoni, L. & Bianchi, M., '[Fighting Environmental Crime in Europe: Preliminary Report](#)', Ambitus & Istituto Affari Internazionali, 2020.
- Collyns, D. '[Oil spill at sea: who will pay for Peru's worst environmental disaster?](#)' *The Guardian*. 2022.
- Dybing, S., '[Environmental harm: Social causes and shifting legislative dynamics](#)'. In R. Ellefsen, et al., *Eco-Global Crimes*, Ashgate, Farnham, 2012, pp. 274-294.
- Environmental Audit Committee of the House of Commons, '[Corporate Environmental Crime: Second Report of Session 2004-05](#)', 2005.
- Environmental Justice Foundation (EJF), '[Ghana given a second 'yellow card' warning from EU over illegal fishing](#)', 2021.
- Environmental Justice Foundation (EJF), '[Fear, hunger and violence: Human rights in Ghana's industrial trawl fleet](#)', 2020.
- Environmental Justice Foundation (EJF), '[China's Hidden Fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector](#)', 2018.
- Environmental Justice Foundation (EJF), '[The Problem with Saiko an ecological and human catastrophe](#)', 2017.
- Esdaile, L. J. & Chalker, J. M., '[The mercury problem in artisanal and small-scale gold mining](#)', *Chemistry*. Vol 24 No 27, 2018, pp. 6905-6916.

- Eurojust, [Report on Eurojust's Casework on Environmental Crime](#), 2021.
- Eurojust, [Strategic Project on Environmental Crime Report](#), 2014.
- European Union FLEGT Facility, [What is FLEGT?](#), (n.d.)
- European Commission, [Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive \(EU\) 2019/1937](#), 2022.
- European Commission, [Fighting against illegal, unreported and unregulated fishing: Commission notifies the Republic of Ghana with a yellow card](#), 2021a.
- European Commission, [Proposal for a directive of the European Parliament and of the Council on the protection of the environment through criminal law and replacing Directive 2008/99/EC, 2021/0422 \(COD\)](#), 2021b.
- European Commission, [Proposal for a regulation of the European parliament and of the Council on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation \(EU\) No 995/2010. 2021/0366 \(COD\)](#), 2021c.
- European Commission, [The EU Environmental Implementation Review \(EIR\) Package: Common Challenges and How to Combine Efforts to Deliver Better Results](#), 2017.
- European Parliament, [Liability of companies for environmental damage European Parliament resolution of 20 May 2021 on the liability of companies for environmental damage \(2020/2027\(INI\)\)](#), 2021.
- European Parliament, [Implementation of the Environmental Liability Directive European Parliament resolution of 26 October 2017 on the application of Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage \(the 'ELD'\) \(2016/2251\(INI\)\)](#), 2017.
- European Parliament Committee on Development (DEVE), [Opinion of the Committee on Development for the Committee on Legal Affairs on the liability of companies for environmental damage \(2020/2027\(INI\)\)](#), 2020a.
- European Parliament Committee on Development (DEVE), [Opinion of the Committee on Development for the Committee on Legal Affairs with recommendations to the Commission on corporate due diligence and corporate accountability \(2020/2129\(INL\)\)](#), 2020b.
- Farmer A. & Newman, S., ['Tackling Illegal Fisheries: The Role of Rights-Based Management'](#). In Sollund R., et al., *Fighting Environmental Crime in Europe and Beyond*, Palgrave Macmillan (Palgrave Studies in Green Criminology), London, 2016, pp. 75-98.
- Faroque, S. & South, N., [Law-Enforcement Challenges, Responses and Collaborations Concerning Environmental Crimes and Harms in Bangladesh](#), *International Journal of Offender Therapy and Comparative Criminology*, Vol. 66, n 4, 2022, pp. 389–406.
- Faure, M. & Philipsen, N., [Contribution to conclusions and recommendations on environmental crime: System of Sanctions](#), EFFACE, 2016.
- Faure, M., et al., [Conclusions and Recommendations from the European Union Action to Fight Environmental Crime](#), 2016.
- Francioli, R., ['The shady origins of gold refined in Switzerland'](#), *Swiss Info*, 2019.
- Geenen, S., ['A dangerous bet: The challenges of formalizing artisanal mining in the Democratic Republic of Congo'](#), *Resources Policy*, Vol 37, No 3, 2021, pp. 322-330.
- Geeraerts, K., et al., [Illegal shipment of e-waste from the EU: A case study on illegal e-waste export from the EU to China](#), EFFACE, 2015.

- Gerstetter, C., et al., [Environmental Crime and the EU: Synthesis of the Research Project "European Union Action to Fight Environmental Crime \(EFFACE\)](#), EFFACE, 2016.
- Haken, J., [Transnational Crime in the Developing World](#), Global Financial Integrity (GFI), 2011.
- Goyes, D. R., ['Denying the harms of animal abductions for biomedical research'](#), In Sollund, R. *Green Harms and Crimes*, Palgrave Macmillan, London, 2015, pp. 170-188.
- Goyes, D. R. & Sollund, R., ['Contesting and contextualising CITES: Wildlife trafficking in Colombia and Brazil'](#), *International Journal for Crime, Justice and Social Democracy*, Vol 5, No 4, 2016, pp. 87-102.
- Goyes, D.R., Mol, H., Brisman, A. & South, N. (eds.), *Environmental crime in Latin America*, London: Palgrave, 2017.
- Greenpeace International, [Final Countdown: Now or Never to Reform the Palm Oil Industry](#), 2018.
- Grynberg, R. & Singogo, F. K., *African Gold: Production, Trade and Economic Development*, Springer Nature, London, 2021.
- Haelelin, C., [Below the Surface: How Illegal, Unreported and Unregulated Fishing Threatens our Security](#), Royal United Service Institute for Defense and Security Studies, 2017.
- Hall, M., *Victims of environmental harm. Rights, recognition and redress under national and international law*. Routledge, London, 2013.
- Hall, M. & Wyatt, T., [Tackling environmental crime in Europe A LIFE-ENPE Capitalisation and Gap-filling Report](#), Environment Agency, 2017.
- Hoare, A., [Tackling Illegal Logging and the Related Trade What Progress and Where Next?](#) Chatham House Report, Royal Institute of International Affairs, 2015.
- Hosch, G., [Trade Measures to Combat IUU Fishing: Comparative Analysis of Unilateral and Multilateral Approaches](#), International Centre for Trade and Sustainable Development (ICTSD), 2016.
- Human Rights Watch (HRW), [The curse of gold. Democratic Republic of Congo](#), 2005.
- Hutton, J. & Dickson B. (eds), *Endangered species threatened convention, The Past, Present and Future of CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora*, Earthscan Publications, London, 2000.
- Illés, A. & Geeraerts, K., 'Illegal Shipments of E-waste from the EU to China', In Sollund R., et al., *Fighting environmental crime in Europe and Beyond*, Palgrave Macmillan, London, 2016, pp. 129-160.
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), [IPBES Global Assessment Summary for Policymakers](#), 2019.
- Intelligence Project on Environmental Crime, [Report on Environmental Crime in Europe](#), 2015.
- International Peace Information Service (IPIS), [IPIS Briefing December 2020 – Potential risks to a successful implementation of the EU Conflict Minerals Regulation](#), 2021.
- International Transport Workers' Federation, [Flags of Convenience](#), 2022.
- INTERPOL & UNEP, [Strategic Report: Environment, Peace and Security – A Convergence of Threats](#), 2016.
- Iordachescu, G., [Is illegal logging and timber trade a serious organised crime in the European Union?](#), 2020.
- Jong, H.S., ['Groups welcome decline in deforestation in Indonesia's Leuser Ecosystem'](#), Mongabay, 2022.
- Jong, H.S., ['Indonesia terminates agreement with Norway on \\$1b REDD+ scheme'](#), Mongabay, 2021.
- Kabamba, M. M., et al., ['Human biomonitoring in the Democratic Republic of Congo \(DRC\): A systematic review'](#), *Scientific African*, Vol 13, 2021.

- Kaysser, N. and Adal, L. '[Saving Africa's Seas: IUU Fishing Index](#)', Enhancing Africa's Response to Transnational Organised Crime (ENACT), 2020.
- Khan, S. Struggles and actions for legal space in the urban world: The case of informal economy e-waste workers. *Canadian Journal of Law and Society*, Vol. 33 n.2, 2018, pp. 115–135.
- Kurekin, A. A., et al., '[Operational monitoring of illegal fishing in Ghana through exploitation of satellite earth observation and AIS data](#)', *Remote Sensing*, Vol 11 No 3, 2019, pp. 293.
- Kimmig, A., '[Chinese mines in DRC raise eyebrows](#)', *Deutsche Welle*, 23 November 2021.
- Lambrechts, D & Hector, M, '[Environmental Organised Crime: The Dirty Business of Hazardous Waste Disposal and Limited State Capacity in Africa](#)', *Politikon*, Vol 43, n 2, 2016, pp. 251-268.
- Liddick, D., '[The traffic in garbage and hazardous wastes: an overview](#)', *Trends in Organised Crime*. Vol 13, 2010, pp. 134–146.
- The Living Rainforest, '[Colombia. Fundacion Entropika](#)', 2022.
- Lynch, M. J., et al., '[The weak probability of punishment for environmental offenses and deterrence of environmental offenders: A discussion based on USEPA criminal cases, 1983–2013](#)', *Deviant Behavior*, Vol 37, No 10, 2016, pp. 1095-1109.
- Maher, J. & Sollund, R., '[Wildlife trafficking: Harms and victimization](#)', In Sollund R., et al., *Fighting environmental crime in Europe and beyond*, Palgrave Macmillan, London, pp. 99-128.
- Maldonado, Á. M., et al., '[Trade in night monkeys Aotus spp. In the Brazil-Colombia-Peru tri-border area: International wildlife trade regulations are ineffectively enforced](#)', *Endangered Species Research*, Vol 9 No 2, 2009, pp. 143–149.
- Maldonado, Á. M. & Peck, M. R., '[Research and in situ conservation of owl monkeys enhances environmental law enforcement at the Colombian-Peruvian border](#)', *American Journal of Primatology*, Vol 76 No 7, 2014, pp. 658-69.
- Mancera Rodríguez, N. J. & Reyes García, O., '[Wildlife Trade in Colombia](#)', *Revista Facultad Nacional de Agronomía Medellín*, Vol 61, No 2, 2008, pp. 4618-4645.
- Mikkelsen, C. (ed), '[The Indigenous World 2014](#)', The International Work Group for Indigenous Affairs (IWGIA), 2014.
- Monbiot, G., '[Dumped fishing gear is killing marine life. Yet no governments seem to care](#)', *The Guardian*, 2022.
- Naylor, T., '[The underworld of gemstones, Part III: hot rocks, cold cash](#)', *Crime, Law and Social Change*, Vol 53 No 4, 2010, pp. 321.
- Nellemann, C. Henriksen, et al. (eds.), '[The Rise of Environmental Crime – A Growing Threat To Natural Resources Peace, Development And Security. A UNEP- INTERPOL Rapid Response Assessment](#)', United Nations Environment Programme and RHIPTO Rapid Response – Norwegian Center for Global Analyses, 2016.
- Newman, S., '[A case study on illegal fishing and the role of rights-based fisheries management in improving compliance](#)', EFFACE, 2015.
- Nurse, A., '[Contemporary Perspectives on Environmental Enforcement](#)', *International Journal of Offender Therapy and Comparative Criminology*, Vol 66 No 1, 2020, pp. 1-18.
- Nurse, A., '[Creative compliance, constructive compliance: corporate environmental crime and the criminal entrepreneur](#)', In G. McElwee & R. Smith (eds.), *Exploring Criminal and Illegal Enterprise: New Perspectives on Research*, Contemporary Issues in Entrepreneurship Research 5, Emerald Group, London, 2015, pp. 97-119.
- Nurse, A. & Wyatt, T., *Wildlife Criminology*, Bristol: Bristol University Press, 2020.



- ODI, [Western Africa's Missing Fish: The impacts of illegal, unreported and unregulated fishing and underreporting catches by foreign fleets](#), 2016.
- Okafor-Yarwood, I. & Adewumi, I.B., [Toxic waste dumping in the Global South as a form of environmental racism: Evidence from the Gulf of Guinea](#), *African Studies*, Vol 79 n 3, 2020, pp. 285-304.
- Oteng-Ababio, M., et al., ['Building policy coherence for sound waste electrical and electronic equipment management in a developing country'](#), *The Journal of Environment & Development*, Vol 29 No 3, 2020, pp. 306-328.
- Pearce, F. & Tombs, S., *Toxic capitalism: Corporate crime and the chemical industry*, Routledge, London, 2019.
- Petrosian, G., et al., ['Where do "Undocumented" Fish Land? An Empirical Assessment of Port Characteristics for IUU Fishing'](#), *European Journal of Criminal Policy and Research*, Vol 21 No 3, 2014, pp. 337–351.
- Phelps, J., et al., ['Environmental liability litigation could remedy biodiversity loss'](#), *Conservation Letters*, Vol 14 No 6, 2021.
- Platform for Accelerating the Circular Economy (PACE) & World Economic Forum (WEF), [A New Circular Vision for Electronics: Time for a Global Reboot](#), 2019.
- Reid, A. & Haenlein, C., [RUSI Whitehall Report 1-22: Illegal Wildlife Trade and Illicit Finance in the UK](#), 2022.
- Reeve, R., *Policing international trade in endangered species: The CITES treaty and compliance*. Earthscan Publications, London, 2002.
- Ristoph, E., ['The Role of Philippine Courts in Establishing the Environmental Rule of Law'](#), *Environmental Law Reporter*, Vol 42 No 9, 2012, pp. 10866-10877.
- Rodríguez, N. J. M. & García, O. R. (2008), ['Comercio de fauna silvestre en Colombia'](#), *Revista Facultad Nacional de Agronomía*, Vol 61 No 2, 2008, pp. 4618–4645.
- Rønning, A.O., [Indonesia sier nei takk til 1 milliard dollar i skogpenger fra Norge](#), *Bistandsaktuelt*, 2021.
- Rosell, T. & Banqué, M., [Study on the implementation of Directive 2008/99/ec on the Protection of the Environment Through Criminal Law](#), 2015.
- Ruggiero, V. & South, N., ['Green Criminology and Crimes of the Economy: Theory, Research and Praxis'](#), *Critical Criminology*, Vol 21, 2013, pp. 359-373.
- Siegel, D., et al., ['Regulators and villains: the dual role of private actors in diamonds and caviar. Crime, Law and Social Change'](#), Vol 74, 2020, pp. 509-523.
- Situ, Y. & Emmons, D., *Environmental crime. The criminal justice system's role in protecting the environment*, Sage Publications, Inc., Thousand Oaks CA, 2000.
- Sollund, R., ['The Development of Enforcement of CITES in Norway: Discretionary Omissions and Theriocides'](#), *Revista Catalana de Dret Ambiental*, Vol 12 No 1, 2021.
- Sollund, R., *The crimes of wildlife trafficking. Issues of justice, legality and morality*, Routledge, London, 2019.
- Sollund, R., ['The animal other: Legal and illegal theriocide'](#), In M. Hall, et al., *Greening criminology in the 21st century: Contemporary debates and future directions in the study of environmental harm*, Routledge, London, 2006, pp. 93-113.
- Sollund, R. & Maher, J., [The illegal wildlife trade: A Case Study report on the Illegal Wildlife Trade in the United Kingdom, Norway, Colombia and Brazil](#), Efface, 2015.



- Sollund, R., et al., [‘The Norway-Colombia Agreement to Protect Rainforest and Reduce Global Warming: Success or Failure?’](#), International Journal for Crime, Justice and Social Democracy, Vol 8 No 3, 2019, pp. 56-73.
- Tacconi, L. et al., [‘Defining Illegal Forest Activities and Illegal Logging’](#), In D. Kleinschmit, et al., *In Illegal Logging and Related Timber Trade – Dimensions, Drivers, Impacts and Responses: A Global Scientific Rapid Response Assessment Report*, IUFRO World Series Volume 35, 2016, pp. 23-36.
- Tasamaba, J. & Khaliq, R., [‘DR Congo probe claims of illicit mining against Chinese companies’](#), Anadolu Agency, 2021.
- Timoshyna, A., et al., [‘The Invisible Trade: Wild Plants and You In the Times of COVID-19 and the Essential Journey Towards Sustainability’](#), TRAFFIC, June 2020.
- Tombs, S., [‘Corporate crime’](#), In Hale, C. et al., *Criminology*, Oxford University Press, Oxford, 2013, pp. 227–246.
- Tombs, S. & Whyte, D., [‘The shifting imaginaries of corporate crime’](#), *Journal of white collar and corporate crime*, Vol 1 No 1, 2020, pp. 16-23.
- Tombs, S. & Whyte, D., *The corporate criminal: Why corporations must be abolished*, Routledge, London, 2015.
- Tombs, S. & Whyte, D., [‘Toxic Capital Everywhere: Mapping the Coordinates of Regulatory Tolerance’](#), *Social justice*, Vol 41 No 1/2, 2014, pp. 80-100.
- Trygg Mat Tracking & C4ADS, [Spotlight on: the exploitation of company structures by illegal fishing operators](#), 2020.
- U4 Anti-Corruption Resource Centre, [Corruption as a facilitator of illegal fishing: Insights from East Africa](#), Michelsen Institute, 2021.
- U4 Anti-Corruption Resource Centre, [Environmental crime and corruption \(U4 Expert Answer\)](#), Michelsen Institute, 2012.
- Ungar, M., [Prosecuting Environmental Crime: Latin America’s Policy Innovation](#), *Latin American Policy*, Vol 8, Number 1, 2017, pp 63–92.
- United Nations (UN), [Convention on biological diversity](#), 1992.
- United Nations Development Programme (UNDP), [Human Development Report 2020 – The next frontier: Human development and the Anthropocene](#), 2020.
- United Nations Environment Programme (UNEP), [Environmental Rule of Law: First Global Report](#), 2019.
- United Nations Environment Programme (UNEP), [The State of Knowledge of Crimes that have Serious Impacts on the Environment](#), 2018.
- United Nations Environment Programme (UNEP), [Our Planet: Environmental Crime Tackling the Greatest Threats to our Planet](#), 2017.
- United Nations Environment Programme (UNEP), [Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China](#), 2014.
- United Nations Environment Programme (UNEP), [Experts’ background report on illegal exploitation and trade in natural resources benefitting organized criminal groups and recommendations on MONUSCO’s role in fostering stability and peace in eastern DR Congo: Final report](#), 2015.
- United Nations Office on Drugs and Crime (UNODC), [Wildlife and Forest Crime Toolkit Report: United Kingdom of Great Britain and Northern Ireland](#), 2021.

- United Nations Office on Drugs and Crime (UNODC), [World Wildlife Crime Report: Trafficking in Protected Species](#), 2020.
- United Nations Office on Drugs and Crime (UNODC), [World Wildlife Crime Report: Trafficking in Protected Species](#), 2016.
- United Nations Office on Drugs and Crime (UNODC) and World Customs Organisation (WCO), [Container Control Programme: Annual Report 2015](#), 2015.
- United Nations Security Council, [Final report of the Group of Experts on the Democratic Republic of the Congo \(S/2021/560\)](#), 2021.
- Uribe, C. A., '[Magía, brujería y violencia en Colombia](#)', *Revista de estudios sociales*, Vol 15, 2003, pp. 59-73.
- Yeager, M.G. & Smith, J.L Global pollution, multinational oil companies and state power: The case of Yaiguaje c. Chevron corporation. In Goyes, D.R., Mol, H., Brisman, A. and South, N. (eds. *Environmental crime in Latin America*. London: Palgrave, 2017, pp 117-140.
- van Uhm, D. P., *The illegal wildlife trade: Inside the world of poachers, smugglers and traders*, Springer, London, 2016.
- van Uhm, D. P. & Grigore, A. G., '[Indigenous People, Organized Crime and Natural Resources: Borders, Incentives and Relations](#)', *Critical Criminology*, Vol 29 No 3, 2021, pp. 487-503.
- van Uhm, D. P. & Nijman, R. C., '[The convergence of environmental crime with other serious crimes: Subtypes within the environmental crime continuum](#)', *European Journal of Criminology*, 2020.
- Van Wingerde, K. and Bisschop. L., Waste Away: Examining Systemic Drivers of Global Waste Trafficking Based on a Comparative Analysis of Two Dutch Cases, *Earmsus Law Review*, No. 4, 2019.
- Veening, W., et al., [Mining gold and mercury pollution in the Guiana Shield: A case study on the role of the EU in fighting environmental crime](#), Efface, 2015.
- Walter, R. & Loureiro, M.A.F. '[Waste Crime and the Global Transference of Hazardous Substances: A Southern Green Perspective](#)', *Critical Criminology*. Vol 28, 2020, pp. 463–480.
- Weis, V.V., [Towards a critical green southern criminology: An analysis of criminal selectivity, Indigenous peoples and green harms in Argentina](#), *International Journal for Crime, Justice and Social Democracy*, Vol 8, n 3, 2019, pp. 38-55.
- White, R., '[Reparative justice, environmental crime and penalties for the powerful](#)', *Crime, Law and Social Change*, Vol 67, 2017, pp. 117–132.
- White, R., *Transnational Environmental Crime. Toward an Eco-Global Criminology*, Routledge, London, 2011.
- White, R. & Kramer, R., '[Critical Criminology and the Struggle Against Climate Change Ecocide](#)', *Critical Criminology*, Vol 23, 2015, pp. 383–399.
- Widodo, J., '[Strengthening environmental justice](#)', *Environmental Crime: Tackling the Greatest Threats to our Planet*, UNEP, Our Planet, Vol 17, 2018.
- Wijaya A., et al., [Indonesia Is Reducing Deforestation, but Problem Areas Remain](#), World Resources Institute (WRI), 2019.
- MacDonald, L., [Can 'One Map' Solve Indonesia's Land Tenure Woes?](#), World Resources Institute (WRI), 2017.
- Wright, G., '[Conceptualising and combating transnational environmental crime](#)', *Trends in Organized Crime*, Vol 14 No 4, 2011, pp. 332-346.

Wyatt, T., *Is CITES Protecting Wildlife? Assessing Implementation and Compliance*, Earthscan Publications, London, 2021a.

Wyatt, T., *Wildlife trafficking: a deconstruction of the crime, victims and offenders*, Springer Nature, London, 2021b.

Wyatt, T., et al., '[The Welfare of the Wildlife: how the legal and illegal wildlife trade debates ignore the wildlife](#)', *Crime, Law and Social Change*, Vol 77, 2021, pp. 69–89.

Wyatt, T., et al., '[Differentiating criminal networks in the illegal wildlife trade: organized, corporate and disorganized crime](#)', *Trends in Organized Crime*, 2020, pp. 350-366.

Yeung, P., '[The Toxic Effects of Electronic Waste in Accra, Ghana](#)', *Bloomberg*, 2019.

Zabyelina, Y. & van Uhm, D. The New Eldorado: Organised Crime, Informal Mining, and the Scarcity of Metals and Minerals. In Zabyelina, Y. & van Uhm, D. (eds). *Illegal Mining: Organised Crime, Corruption and Ecocide in a Resource-scarce World*. Palgrave Macmillan, London, 2020, pp. 3-30.

## **II. Workshop proceedings**

WORKSHOP PROCEEDINGS

# Tackling environmental criminality in developing countries

## Table of contents

1	Workshop Programme	1
2	Introduction	6
3	Panel 1: The prevention and fight against environmental crime in developing countries	6
3.1	Presentation by academic expert and stakeholders' contributions	6
3.2	Debate	9
4	Panel 2: The external dimension of the EC proposal for a Directive on the protection of the environment through criminal law	12
4.1	Presentation by academic expert and stakeholders' contributions	12
4.2	Debate	19
	Annex - Speakers' bios.	22





# 1 Workshop Programme

## TACKLING ENVIRONMENTAL CRIMINALITY IN DEVELOPING COUNTRIES

Thursday, 19 May 2022, 14:00- 16:30

Webstreaming / Interpretation: EN, FR, ES

Brussels **Altiero Spinelli** Building, **room 3G3**

---

### DRAFT PROGRAMME

---

14:00-14:03 **Introductory remarks**

Welcome by **Caroline ROOSE**, MEP, Committee on Development (DEVE)

14:03-15:15 **Panel on the prevention and fight against environmental crime in developing countries**

- **Prof. Dr. Tanya Wyatt**, Northumbria University  
**Prof. Dr. Ragnhild Sollund**, University of Oslo
- **Dr. Marcos A. Orellana**, UN Special Rapporteur on toxics and human rights
- **Lejda Toci**, Crime Prevention and Criminal Justice Officer, UNODC
- **Dr. Christian Nellemann**, Executive Director, Rapid Response Unit, RHIPTO  
Norwegian Center for Global Analyses
- **Patrick Alley**, Director and Co-founder of Global Witness

*Debate*

- Intervention by **Dante Pesce**, Executive Director, Vincular Center at Catholic University of Valparaíso-Chile
- Intervention by **Olivier Mushiete**, Director-General, Institut congolais pour la conservation de la nature (ICCN), DRC
- Intervention by **Louis Maréchal**, Sector lead for Minerals & Extractives, Centre for Responsible Business Conduct, OECD
- Intervention by **Kerstin Reemtsma**, Advocacy Coordinator, Peace Brigades International

15:15-16:28     **Panel on the external dimension of the EC proposal for a Directive on the protection of the environment through criminal law**

- **Éric Figliolia**, Eurojust Contact Point for Environmental Crime and the Deputy National Member for France
- **Richard Rogers**, Executive Director, Climate Counsel
- **Alessandro Milita**, Deputy Public Prosecutor, Prosecutor's Office of Santa Maria Capua Vetere Santa - Italy
- **Michael O'Connell**, Secretary General, World Society of Victimology
- **Prof. Dr. Liliana Lizarazo Rodriguez**, Vrije Universiteit Brussel

*Debate*

- Opening by **Maria Arena**, Chair of EP Subcommittee on Human Rights
- Intervention by **Anabella Sibrián**, Regional Director, Protection International Mesoamerica
- Intervention by **Miriam Pixtun**, Centre for Human Rights Legal Action, Guatemala

16:28-16:30     **Concluding remarks**

**Caroline ROOSE**, MEP, Committee on Development (DEVE)

## 2 Introduction

The workshop titled 'Tackling environmental criminality in developing countries' was organised by the Committee on Development (DEVE) and the European Parliament (EP) Directorate-General for External Policies. It took place in hybrid format on 19 May 2022 under the chairmanship of MEP Caroline Roose (Group of Greens/European Free Alliance). The aim of the workshop was to examine the current state of play in the fight against environmental criminality and to fill the EP's knowledge gaps on the matter. Therefore, experts and practitioners have been invited to present their work and to engage in a discussion with Members of the EP (MEPs), including representatives from international organisations and NGOs, legal experts, as well as representatives from civil society and academia.

Opening remarks were given by Ms Roose, who mentioned the timeliness and importance of this exchange, also given a recent UNEP/INTERPOL study recording a sharp rise in environmental criminality, amounting to almost USD 300 million.

## 3 Panel 1: The prevention and fight against environmental crime in developing countries

Panel 1 included an expert presentation from Prof. Dr. Tanya Wyatt (Northumbria University), co-author of the forthcoming In-Depth Analysis on 'Environmental Criminality in Developing countries' commissioned by the EP, followed by interventions from Dr Marcos A. Orellana (UN Special Rapporteur on toxics and human rights), Lejda Toci (UNODC), Dr Christian Nellemann (RHIPTO Norwegian Center for Global Analyses) and Patrick Alley (Global Witness).

### 3.1 Presentation by academic expert and stakeholders' contributions

**Prof. Dr. Tanya Wyatt** started the first panel by presenting the findings of an In-Depth Analysis co-authored with Prof. Ragnhild Sollund (University of Oslo), commissioned by the European Parliament. She highlighted the difficulties that arise from different definitions used when it comes to environmental criminality, which is a field in continuous evolution. The in-depth analysis also discusses different kinds of environmental crime, including wildlife crime, forestry crime, fisheries crime, pollution, as well as waste, dumping and illegal mining.

Focusing on the lessons learned and best practices from the Global South, Prof Wyatt summarised the results of their four case studies, compiled through a meticulous literature review as well as interviews with EU delegations and other experts.

1. In the Democratic Republic of the Congo, the lack of transparency in the mining sector became evident. Consequently, there is need for increased due diligence for the companies involved, as well as a sophisticated tracking system for any natural resources involved in the production chain, source to destination. Moreover, the analysis showed a lack of public consultation and engagement with the local communities doing or affected by the mining and resulting pollution. Special attention should be given to providing alternative livelihoods to mitigate the impact of new regulations on the people who would be displaced from the mining activities or due to increased pollution in the area. People need to be given alternatives to committing environmental crime. In addition, the environment and people's health require more protection. Further structures in that regard are required, so that people

and the environment are protected from toxic water and contamination caused by the mining process.

2. Focusing on illegal unreported and unregulated (IUU) fishing, the case of Ghana indicates the need to improve the practice of flags of convenience, when some countries offer to license certain unregistered vessels. The main lesson learned is thus that this common practice is only causing the potential for environmental crimes, as these vessels basically operate unregulated. Waste dumping as well as illegal fishing are also linked to human rights abuses as these industries lack workers' protection, leading to forced labour or forms of modern slavery, and more transparency is needed. It is also important to note that what is considered waste in the EU is sometimes not defined as such in the Global South and is instead viewed as a resource. Overall, there is a need for much more consistency in the regulation and definition of waste. Hence, a formalized industry for recycling has been identified as a potential solution for avoiding future waste dumping in the Global South, as differences in legislations open up space for illegal activity.
3. In Indonesia, the main takeaway is the need for more independent monitoring, with Professor Wyatt advising for a much more publicly engaged process regarding forestry industries. The main means to achieve this is by increasing transparency and due diligence, tracking wood and timber throughout the production chain from source to destination. In addition, setting up independent agencies to prosecute corruption and financial aspects of the environmental crimes in the forestry industry has proven to be an effective tool. Generally, understanding the role and inadvertent support of banks and financial institutions in these illegal activities related to environmental crimes is crucial. One best practice in the country has been the mapping of land rights, which requires involving local communities in the precise mapping of property rights.
4. The final case study deals with wildlife crime in Colombia. The authors highlighted links to corporate crimes, particularly related to animal testing in laboratory facilities and the pet industry. While acknowledging that complex legislation can in fact cause complications for law enforcement, Prof Wyatt underlined how civil society is here especially valuable in protecting and taking care of animal wildlife, as proven by the study of NGO Entropika. Their helpful impact includes *inter alia* the provision of rehabilitation centres and other safe spaces. However, it is often the case that these defenders risk their own lives – Colombia has one of the highest murder rates for environmental activists – and thus more protection is needed.

Drawing on the conclusion of their four case studies, Prof Wyatt provided some concrete recommendations to the EP:

- a new approach to conserving wildlife should be considered, with an aid – rather than trade – approach, perhaps via CITES;
- legal definitions of waste and non-waste should be revisited to eliminate exceptions and loopholes;
- robust legislation for corporate due diligence and accountability is critical in tackling environmental crime;
- punishment for environmental crime must be certain and swift to deter and prevent (re)offending, as well as focused on those profiting the most;

- law enforcement (police, customs, prosecutors, judges, etc.) must be able to prosecute both legal entities and natural persons.

Across all sectors, increased accountability, due diligence and transparency are needed, and the EU's regulatory efforts within its borders and beyond are crucial in the fight against environmental criminality.

**Dr. Marcos A. Orellana**, UN Special Rapporteur on toxic substances and human rights, structured his intervention around four points:

1. The latency period of exposure to toxics has implication on (i) penalty (can be aggravated in case of loss of life) and (ii) statute of limitation for the crime. In a case study conducted in Chile, where a public health crisis is ongoing due to toxic waste dumping from a Swedish company in 1984, the question of when to begin the statute of limitations was raised. It is important to account for the long latency period of the released toxics, as for example arsenic remains harmful to humans after 20 years of being released in the environment. This must be taken into account. Hence, gross breaches of human rights, such as those related to toxins exposure, should not be subject to the statute of limitations.
2. Artisanal and small-scale gold mining (ASGM) is the largest emitter of mercury in the world and the consequent human rights abuses are disproportionately affecting indigenous people, particularly in West Africa, Latin America (the Amazon Basin) and South-East Asia. These indigenous communities are often relying on traditional resources, such as fish and river water, which are getting contaminated. Thus, the pollution caused by gold mining affects the right to health, the right to culture, as well as the right to a clean and sustainable environment. An important example is Peru, which made illegal mining a criminal offense a few years ago. However, this created a category of 'informal mining', which is not subject to prosecution. By registering on an official list, many miners have now become 'informal miners', shielding themselves from enforcement. This has had of course a negative effect, as mercury is now illegally trafficked from neighbouring countries (e.g. Bolivia). One main issue regards the Minamata Convention on Mercury, where small-scaled mining is an 'allowed use', enabling the trade and ultimately emittance of mercury. This needs to be stopped to close the loopholes. In general, there needs to be alignment between the national and international responses to effectively fight environmental criminality.
3. Trafficking and dumping of hazardous waste in developing countries results in global environmental injustices – as for many years it was mainly produced by the Global North, most notably by European countries. Oftentimes, waste companies from the North collaborate with sub-contractors from the South who are incapable of handling the waste and ultimately dump it, harming the communities and biodiversity around the site. The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal establishes the obligation on state parties to consider illegal trafficking as entailing criminal responsibility and has been subsequently amended to ban the transfer of hazardous waste from OECD to non-OECD countries. One of the relevant case studies is the illegal shipment of more than two hundred containers of waste from Italy to Tunisia in 2021. Concerned about the situation, Dr. Marcos A. Orellana visited Italy to put into the spotlight the insufficient controls in the EU regulation on waste shipments that lack mandatory inspections and adequate financial guarantees. Hence, EU regulation needs to be continuously strengthened.



4. Also in Italy, the eco-mafia exemplifies low-risk and high-reward for criminal activity, meaning when it is treated as a misdemeanour instead of a criminal offence or enforcement tools are insufficient. This highlights the importance of efficient international law enforcement cooperation and sharing of best practices, especially with developing countries.

**Lejda Toci**, Crime Prevention and Criminal Justice Officer at UNODC, underlined the importance of preventing and fighting against environmental crimes, which are often overlooked and thus under-prosecuted. The criminals involved are organized, well connected, and run global syndicates exploiting wildlife and nature. They not only threaten wild animals, but are also involved in timber and plants smuggling, illegal mining, and trafficking. Their criminal activities are largely enabled by the relatively weak penalties and weak law enforcement making environmental crimes 'low-risk'. For their smuggling and trafficking of endangered species, criminals use the same ways, routes and techniques used for smuggling firearms, drugs or other illicit goods.

The amplification of climate change and biodiversity loss, the loss of sustainable resources threatening livelihoods, the destruction of natural habitats and important carbon sinks, as well as public health risks can be included in the list of impacts caused by environmental criminality. Moreover, the ecological impact linked to poaching of keystone species cannot be overlooked, considering 1 million species are currently at risk of extinction. The immediate impact on local communities is also often forgotten. It is particularly important to look at the fisheries sector, which plays a crucial role in the economies of developing countries, not only in terms of being a source of labour and income but also for food security, as it represents one of the main nutritious sources for protein in those countries. Pollution and illegal dumping can render habitats (including human ones) unliveable, destroying critical ecosystems, while illegal mining and toxic waste endanger health, potentially also undermining economic development by making lands unusable. Illegal trade in wildlife can also facilitate the spread of zoonotic diseases.

The UNDOC's approach 'from crime scene to court' includes the expansion of local and regional prevention capabilities by offering technical assistance and capacity building. This covers law enforcement activities from prevention, detection and interdiction to investigation and prosecution. To this end, understanding criminal justice in the respective countries is of utmost importance, and only afterwards it is possible to work collaboratively on a strategic approach to strengthen national capacities in fighting environmental crimes. The frameworks for this work are the UN Convention against Transnational Organized Crime (UNTOC) and the UN Convention against Corruption (UNCAC). Recurring challenges include: (i) lack of prioritization; (ii) the presence of corruption; (iii) vulnerable supply chains, in particular for forestry and fisheries; and (iv) weak law enforcement capacities. In addition, there is often lack of awareness on the seriousness of the crimes, lack of transnational cooperation, inadequate laws and context specificity. To address the lack of cooperation, the UNDOC coordinates efforts with other international organisations within the framework of, for example, the International Consortium on Combating Wildlife Crime and the European Multidisciplinary Platform Against Criminal Threats.

UNODC's specific approach to preventing and fighting environmental crimes in the fisheries sector is in line with its criminal justice mandate and complements the work of the UN Food and Agriculture Organization (FAO). UNDOC's approach broadly covers 'crimes in the fisheries sector', which includes many areas of crime happening along the value chain, often only indirectly linked to fishing operations, such as for example the use of fishery vessels for drug trafficking. Similarly, a wide range of economic crimes (like fraud) are also indirectly linked and occur at many stages in the value

chain. Thus, crimes in the fisheries sector are in fact much more than just IUU fishing, which may occur at the same time.

UNODC follows a value chain approach, allowing to identify the actors involved, the stages at which crimes potentially take place, as well as entry points for law enforcement intervention. Currently, in many countries, UNODC looks at three main aspects: improvements in the legislative framework, capacity building (such as corruption risk-assessment and law enforcement training) and awareness raising.

**Dr. Christian Nellemann**, Director of the Rapid Response Unit of the Norwegian Center for Global Analysis (RHIPTO), focused on what has worked to battle environmental crimes on a large scale so far. He categorised environmental crimes differently, as stemming from (i) corporate crime, (ii) enforcement frontline issue, (iii) regulatory issues and (iv) poverty issues. It is estimated that environmental crimes account for between USD 110 to 281 billion per year, ranking third behind drug trafficking and counterfeit. This means that a significant share of these crimes are primarily corporate financial crimes, particularly in areas such as forestry, fisheries and mineral mining (jointly reaching over USD 250 billion). In Dr. Nellemann's view, when it comes to wildlife crimes there are primarily frontline enforcement issues. There are also regulatory issues, where the role of the EU comes into play, e.g. with the unregulated exotic pet trade, where EU policies have to be improved. Issues can also be poverty related (e.g. charcoal and fuelwood, bushmeat, etc.).

Dr. Nellemann then presented some successful cases of fight against deforestation. Brazil is a leading example, where law enforcement agencies were able to reduce deforestation by 76 % between 2004 and 2009 through the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) programme, making it one of the biggest successes in the fight against environmental crimes. Another good example is Papua New Guinea, where a common project by UNODC Global Programme against Money Laundering (GPML), RHIPTO and INTERPOL on financial investigations into large corporations and some banks proved to be effective in reducing illegal logging (by around 37-44 %) by prompting them to pull out investments. This shows the potential of using methods within the frameworks of existing laws. Furthermore, in Tanzania, African elephant poaching had been rising dramatically since a drastic income drop for rangers in the region. In order to address the issue of elephant poaching, the Tanzanian authorities have joined efforts with the United States Africa Command, the UNDP and Germany to map out the poaching routes and throughout 2009-2014 train the park rangers and scouts in tracking, crime scene and tactics. As a result, the annual poaching rate in Tanzania has dropped significantly. Moreover, the efforts had major direct and psychological deterrence results, which was not observed in similar efforts in other regions.

Looking at mining (particularly goldmining), it has become a huge environmental issue across the Sahel, with its resources mainly exported to India, United Arab Emirates, Turkey, Switzerland and the UK. Goldmining increased by 40 % during the COVID-19 crisis, becoming a primary threat finance factor to armed groups in the Sahel and Great Lakes region once other income sources are missing.

Concluding, Dr. Nellemann highlighted how unregulated exotic pet trade in the EU serves as free haven for wildlife crimes, and is also related to drug networks. Furthermore, environmental crimes undermine development efforts in Africa. On a larger scale, when dealing with financial and corporate crimes, it is important to engage banks to raise awareness on the potential for money laundering and fraud in sectors such as forestry, mining and fisheries. He recommends enhancing investigative capacities in the Financial Investigative Units of the (OECD) Development Assistance Committee countries in order to prevent money laundering and corporate environmental crimes.

With 'pure' wildlife crime, supporting frontline enforcement through rangers on the ground is crucial, as basic resources are lacking. For crimes linked to poverty issues, traditional development support is important, but these are separate paths for separate purposes. It is recommended to enhance water, electricity and sustainable agriculture in local communities to prevent them from engaging in criminal activities. Finally, legitimate business sectors in forestry, fisheries and mining should receive more support.

**Patrick Alley** is one of the three founders of Global Witness, the first organisation to investigate the links between corruption, conflict and human rights and environmental abuses. He began his intervention by noting how criminality is indeed an international phenomenon, since it is mostly rooted in developed countries. In his personal experience of over 29 years investigating tropical timber trade, he has taken part in numerous undercover investigations including into the timber trade that funded the genocidal Khmer Rouge in Cambodia, the Arms Trade that fuelled Charles Taylor's brutal civil war in Liberia, the logging of the forests of the Congo Basin and the killings and criminalisation of land & environmental defenders in Peru and Brazil.

During the early 1990s, while the biggest (to that date) UN peacekeeping operation was taking place, the three co-founders of Global Witness came together to look into the illegal timber trade between the Khmer Rouge and Thailand. This was of course both an environmental and human rights problem, overlooked by all other international organizations. Posing as timber buyers, they documented this trade was earning the rebels USD 10-12 million per month. Eventually, this culminated with the uncovering of a series of illegal letters from the Cambodian Prime Minister to the Thai Defence Minister agreeing to ship timber from Khmer Rouge-held territories while being on opposing sides in a civil war. The Khmer Rouge were to make USD 95 million out of the deal and the Cambodian government USD 35 million – except that the money was off-budget, so presumably only the involved ministers made the profit. This is one example of how corruption is at the very heart of most environmental crimes and often goes up to the highest political echelons, making prosecution and meaningful enforcement on the ground almost impossible.

In 2012, a Cambodian forest activist was gunned down by military policemen. Global Witness thus decided to monitor and document how many land and environmental defenders lose their lives in a yearly report. It is important to note that local population tends to only become aware of their land being sold to companies when equipment starts to arrive. In many countries where companies bribe governments to exploit natural resources, these governments become loyal to the companies and no longer to their people. Communities and indigenous people are thus denied the right to go to court, as the authorities have turned into the enemy. Consequently, protest and activism, as local communities' only option, are often ruthlessly suppressed and activists risk their lives.

The 2020 Global Witness report documented 227 killings of environmental and land defenders (which is four killings per week), showing a growing trend (often underreported). This cycle of corruption and violence exposes how the political elites and legal prosecuting authorities in these autocratic countries have become the perpetrators, and victims cannot rely on domestic law as it is unreliable or simply useless. Moreover, the domestic law on the environment can be even harmful: for example, Mr Alley mentioned the law pushed by the Brazilian President Jair Bolsonaro that would allow the exploitation of the Indigenous lands for mining.

There is a solution that can be often applied to cases of corruption. The key is to investigate where the money used for the bribes comes from. Often, in these globalised times, following the money leads to international Western banks and corporations that are enabled by an army of lawyers and

public relations companies. On the other end, the commodities produced or taken from these lands are bought by Western consumers, which therefore have the power to act.

In Mr Alley's experience, EU legislation like the Timber Regulation have only had very limited impact because evidence gathering is costly, the industry is inherently corrupt, European law enforcement showed little appetite for closing investigations, and penalties are light. However, the EU's Corporate Sustainability Due Diligence Law currently on the table has the potential to bring real change by allowing the victims to hold companies accountable, to ban goods with environmental crimes along their supply chains and to force corporations to pay reparations for damage done. The proposal has several shortcomings, for example not explicitly recognizing indigenous people and local community as crucial stakeholders in the process, which is concerning when considering the deadly toll they have had to pay over the years. Moreover, allowing companies to rely on third party verification and multistakeholder initiatives are flawed methodologies. Concluding, Mr Alley urged the European Parliament to include the definition of ecocide into the legislation to make it as strong as it could be and recommended to reinforce the legislation on the environmental due diligence.

## 3.2 Debate

The debate evolved around four statements and a Q&A session.

**Dante Pesce**, Executive Director of the *Centro Vincular* of the *Pontificia Universidad Católica de Valparaíso* in Chile, started by challenging the assumption that many companies and policymakers actually want to change the current *status quo* in which they are profiting from a low-cost/high-reward system. Secondly, he believes that solid institutions, rule of law, enforcement, defenders protection, credible punishment (including financial consequences) and access to remedy are needed to fight environmental crime; but since in reality these things either do not exist or are not efficient enough, committing environmental crimes is relatively easy. Thirdly, systemic challenges require a systemic approach, and policy objectives require policy coherence. Looking at current EU initiatives, due diligence at its core is a preventive measure, while the EU's Green Taxonomy could act in a complementary manner by creating an enabling environment. It is important to make them work properly, mitigating unintended negative consequences. Finally, policy-setting in the EU must consider the voices of affected stakeholders, local communities and businesses.

In the following intervention, **Olivier Mushieta**, Director General of the *Institut Congolais pour la Conservation de la Nature* (ICCN), spoke about the DRC representing an 'optimal' area for all forms of trafficking and poaching, because of its biodiversity and the vast borders with its neighbours. ICCN is an important player in fighting environmental crimes in Congo as it is supervising 80 protected areas in the country. International cooperation needs to be improved, with the rest of the African continent but also with international actors like INTERPOL and the UN. Just a few days prior to the workshop, two tons of ivory transiting Congo were seized. This shows the results of DRC's international relations becoming more and more efficient and the country's increasing investment in resources to that end.

While the DRC has the advantage of having strong environmental conservation laws, their enforcement needs to be strengthened as it is comparatively understaffed to the size of the country. More equipment, better salaries and manpower are needed to effectively protect the environment from being exploited. Mr Mushieta concluded by underlying that one of the key factors encouraging poaching is poverty in rural areas, and institutions as ICCN propose alternative programs for local communities, allowing them to transition to more beneficial activities, slowing down or halting poaching, trafficking and deforestation. One of the big problems faced in the sector is corruption, but via strong international partnership and information sharing, helpful solutions can be found.

The OECD does produce standards for responsible corporate conduct, stated **Louis Maréchal**, Sector Lead for Minerals and Extractives at the OECD Centre for Responsible Business Conduct. Their activities include promoting sustainable mineral chains. In general, as aforementioned, he confirmed the observation that many environmental crimes are motivated by poverty and thus crime prevention should consider the needs of local communities engaging with these crimes. As they are increasingly impacted by climate change, they need alternative incomes to these activities.

Moreover, Mr Merechal emphasized that European legislation directed at the prevention of environmental crimes needs to be coherent to be effective. He stressed the importance of clear formulations in the regulations, which needs to be improved to effectively address international corporations. Given that sometimes environmental crimes are supported unknowingly, or moral judgements are not always in the company's interest, good corporate practices are not enough and need to be accompanied by effective law enforcement. For example, when illegally mined gold from developing countries shows up in developed countries, this crime needs to be investigated.

**Kerstin Reemtsma**, Advocacy Coordinator at Peace Brigades International, presented their work focusing on protective accompaniments for human rights defenders' at risk, many of which are environmental or land defenders. In the concrete case of Guatemala, the exploitation of forests and land due to the expansion of sugar farms is having a severe impact on local communities and wildlife. While the sugar industry already owns about 10 % of the agricultural land in the country, the regions which once used to be most fertile have now fallen victim to deforestation. Local communities have not only lost access to land, but also to water, as sugar farms are diverting river flows towards their fields and digging very profound wells (around 30 % of drinkable water is used for the irrigation of sugar plantations). Moreover, the remaining drinkable water is polluted by the intensive use of pesticides and fertilizers, contributing to a local health crisis within the population. Local fishermen have lost their livelihoods and many communities hence lost their sources for nutrition. The severe impact is also observable in the malnutrition of children, which stands at nearly 50 %. Activists and organisations fighting for the right to water and healthy environment are suffering attacks, intimidations, smearing and risk imprisonment.

Guatemala is just one example of many and to defend the environment and the rights of human rights activists, it is essential that the EU's Corporate Due Diligence and Environmental Crime Directives include strong provisions for human rights defenders as well as clear mechanisms for meaningful participation prior to investments, as these people often know best the environmental impact of vast development investments projects. The strict respect of indigenous people rights to self-determination and prior informed consent cannot be just a tick box exercise. In general, listening to civil society organisations is crucial.

During the Q&A session, **MEP Pierfrancesco Majorino** (S&D Group) remarked how there need to be a real mobilization of European political actors and civil society on this subject. It needs to be ensured that sanctions are enforced rapidly, which also calls for international support in training exercises for local authorities. Technical support needs to be provided to third countries and local authorities fighting environmental crimes. Due diligence must include obligations to respect the environment and human rights, also providing for corporate liability for crimes committed outside the EU. Lastly, special attention needs to be devoted to worker's rights, as often activities relate not only to environmental crimes but also to labour force exploitation.

**MEP Antoni Comín I Oliveres** (Non-attached) mentioned the proposals aiming at the inclusion of ecocide within the ICC statute, currently subject to an international legal debate about how to strike the right balance between a broad scope of actions covered and the precision of the legal



formulation. He asked researchers and experts what their opinion is on these proposals, in which direction these should go and whether they had suggestions to facilitate the collaboration between civil society and institutions in order to win this difficult battle against environmental criminality. He raised further questions on the voluntary extension of jurisdiction foreseen in the Environmental Crime Directive in cases of crimes committed by EU nationals when the crime is committed in name of a company located in one of the Member States, which should instead be mandatory. More specifically, he also raised the question of the EP's role in the protection of environmental defenders, especially when they are victims of unfair trial proceedings.

**MEP Caroline Roose** asked how environmental crimes and companies' responsibilities could be linked. For example, when talking about overfishing, it becomes clear that the international community and Member States need to act in unity. So far, the existing laws are weakened by a lack of traceability allowing for illegal fishing and associated human rights abuses. Directed at Ms Toci, she enquired whether there is enough political will internationally to address these issues.

Panellists responded to the questions raised, starting with **Mr Maréchal**. On the issue of companies' responsibilities, he believes that European legislation usually states that the appropriate national authorities should have access to the required information, though sanctions are limited. However, if the national authorities could share the information on risks, it would be invaluable for watchdogs controlling the environmental crimes. So far, such information sharing practice does not exist, thus a greater cooperation between institutions and national authorities should be in place.

**Ms Toci** highlighted the importance of investigating more traditional economic crimes within the fisheries sector. In fact, the UNODC focuses on the economic dimension of the environmental crimes committed onshore, only in one jurisdiction, and are hence much easier to prosecute than others. This opens up to the creation of a parallel criminal justice track to support the overall efforts. More broadly, international awareness and will seem to be increasing as the impact of these illegal activities and their associated revenue loss for the countries affected become more and more evident.

**Ms Reemtsma** added that protecting environmental defenders could be supported by the EP during court proceedings by including them in EP missions, which would also raise the visibility around their situation and internationally signal the importance of their work. Legal counsel and observatory missions through the embassies constitute other tangible ways of leading a better legal process, together with support for families.

**Mr Nellesmann** answered on corporate crimes that ODA funding to support financial investigation units on the ground needs to be strengthened. Similarly, the engagement of the financial sector should be strengthened so that the banks classify such industries as forestry, fisheries and mining as a risk area for money laundering and subsequently activate their internal mechanisms for detecting money laundering and fraud without necessarily resorting to the prosecution process.

In addition, **Dr. Orellana** reminded how the ICC jurisdiction is complementary to – and can replace – the national jurisdiction, meaning that the proposed Directive has a role to play in the incorporation of ecocide in the Rome Statute. Regarding the extension of jurisdiction, certain human rights conventions have precedents when the investigations do not go down the path of criminal investigation or extradition and those formulations could be useful for the text of the proposed Directive. Finally, it is also worth highlighting how some products actually banned in the EU are still produced by EU countries and then exported to the Global South. The link between the Environmental Crime Directive and other Directives should be bolstered to bridge this gap.

**Mr Alley** remarked the lack of reaction from the ICC on a complaint submitted by Richard Rogers in 2014 about land grabbing and forced displacements of local communities in Cambodia. The ICC indictment of a Head of State, even if never prosecuted, is an enormous deterrent, and a powerful tool that the codification of the term 'ecocide' could enhance.

## 4 Panel 2: The external dimension of the EC proposal for a Directive on the protection of the environment through criminal law

Panel 2 included presentations from Éric Figliolia (Eurojust), Richard J. Rogers (Climate Counsel), Alessandro Milita (Prosecutor's Office of the Italian Republic in Santa Maria Capua Vetere), Michael O'Connell (World Society of Victimology) and Prof. Dr. Liliana Lizarazo Rodriguez (Vrije Universiteit Brussel).

### 4.1 Presentation by academic expert and stakeholders' contributions

**Mr Éric Figliolia** intervened in his capacity as Contact Point for Environmental Crime at Eurojust. He highlighted how a number of important issues and questions that were being considered, such as legal responsibility, victims, working with communities, are not under Eurojust's mandate (recently reinforced).

In January 2021, Eurojust presented a report analysing the situation in terms of cross-border cooperation in the field of environmental crimes until 2018, including statistics and analysis, discussing issues experts are facing in combating environmental crime as well as operational recommendations, such as those already mentioned by Mr Majorino. Support is indeed important because this is a transition, and the perspective of the Directive is linked to the approach in the European Union and in developing countries. The proposal presented in December by the Commission was welcomed by Eurojust, as some priorities from the report were included, for example: engaging all stakeholders involved; having a key legal definition for crimes; penalties for infringements (as there is cross border crime in this area); seizing and confiscations; and providing reliable data. This latter point is very important as it is not always the case with some Member States when it comes to the prosecution of environmental crime.

Mr Figliolia continued by looking at why Eurojust is interested in the international aspects, especially when it comes to developing countries with regard to the proposed Directive. The EU has a key place in the world: it is an import/export area, and a transition area (e.g. for protected flora and fauna). It exports towards developing countries and other developed countries, for example: waste, shipment, chemical/plastic waste, as well as product and species that are protected. There is also trafficking that comes *from* developing countries (e.g. protected animals and species or manufactured products), with the exemplifying case of ivory, where the rhino horn is sold by the kilo from Africa to Asia, transiting through Europe.

Combating environmental crime does affect developing countries and Eurojust is developing a database with reliable data. Currently, there are over 2 000 ongoing cases, though there is no legal case open with a developing country (based on data from 2017 until now). However, there are cases with these countries, but not about environmental crime. There are 17 cases ongoing where Eurojust is one of the parties. The types of crimes covered include *inter alia* terrorism (5), fraud (4), money laundering (4), migration and forgery.



On the one hand, there is an issue of semantics, because environmental crime can often be associated with other kinds of criminal behaviours. In fact, in 2/3 of cases, environmental crimes are not isolated but often cover up other types of crimes. Consequently, the investigation departments tend to focus on the crime they are more familiar with, rather than ones which they do not know as well. For example, talking about money laundering and environmental crime, one may focus more on the former, because there is a better understanding of it. This can lead to lack of data.

There is often a lack of formalised cooperation with developing countries. There is some informal cooperation, as they are 'involved but not officially involved'. Eurojust is the legal door to Europe, with 10 liaison prosecutors (e.g. UK, USA, Ukraine, Georgia). It also has contact points in Africa and South America (e.g. Nigeria). Beside this, cooperation networks are important. For example, Eurojust cooperates with the Jaguar network in South America and recently held a meeting on the issue of environmental crime to present the report and tools as well as consider strengthening the relationship. In the Mediterranean area, Eurojust has a legal cooperation network and carries out capacity building, also discussing environmental crime. In South-East Asia, perhaps there is not as much cooperation as there could be, but Eurojust has recently welcomed delegations of prosecutors from the area in the framework of the EU-funded EMPACT programme and presented its work to explore where links can be built. Overall, there is the need to include developing countries in combating environmental crimes because they are involved at all stages.

Mr Figliolia concluded by inviting the other speakers to share their analysis on environmental crime being side-lined due to other crimes, as well as the idea of formalising cooperative relations and partnering with these legal networks to work alongside developing countries.

**Mr Richard Rogers**, Executive Director of Climate Counsel, was also part of the independent expert panel on the definition of ecocide. He focused on two main points: (i) whether ecocide should be part of a new Directive on environmental crime and (ii) what the definition might look like, starting with the proposal of the expert panel.

Reiterating what Mr Alley said, he highlighted how environmental crimes not only fund criminal gangs but also propel violent dictatorships, leading to more instability and sometimes conflict. Western money, expertise and markets can be central to the realisation of these illicit profits, which is terrible for the environment, the country and the civilian population, as land grabbing often turns extremely violent. It is partly the lack of effective laws criminalising ecocide that creates the legal space for some kleptocracies to form and function; and for Western money, expertise and consumers to oil their wheels.

Should ecocide then be included in the revised EU Environmental Crime Directive as a standalone crime in addition to the many specific ones already listed? Mr Rogers believes it should, as it would come with several key advantages:

1. It could serve as catch-all category to allow prosecution for serious environmental harm that is unlawful or wanton but does not fall within existing categories. For example, when EU nationals or businesses operating outside the EU cause massive environmental harm and violate local laws but not EU laws, and local court may be unwilling or unable to take action (e.g. may be told not to by a corrupt local government), the EU should be able to step in. Moreover, the category may be used when a new type of serious harm has been committed but is not yet covered by a specific EU regulation.
2. It could serve as a special category to capture the most serious examples of harms from existing ones within the Directive. There are 18 categories in the draft (Article 3.1); for some the environmental harm can be minor, but for others it could be devastating. Currently, they

all fall under the same provision. There should thus be a way to distinguish the really serious cases of environmental crime as a matter of law, via a new category into which all the most serious offenses can fall, whether they are within the existing 18 categories or yet unseen types of crimes. With a new crime covering the most serious cases, there would be the possibility to mandate special provisions (e.g. greater investigative powers, extraterritoriality, higher sentences, etc.).

3. The main advantage would be the great symbolic value of including ecocide. The current 18 categories in the draft directive are important, but very technical and do not resonate as much with the public. It is hard to get the public worked up about recycling of ships, but it would be easy for ecocide. If we want to shift behaviour away from environmentally disruptive practices, a change of attitude is needed to get the public and civil society on board. If someone is accused of ecocide, the weight of moral condemnation is huge, and that could serve to prevent the worst excesses.

Mr Rogers then moved on to looking at what a definition of ecocide could look like, using the expert panel proposal as a basis: *“Ecocide is 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”*. This could be adapted to fit the EU Environmental Crime Directive.

The panel tried to create a definition that would capture the most offensive conducts, but also did not scare off states; broad enough to be meaningful, but not so much to undermine development. The panel tried to keep states on board in a few ways: (i) applying two thresholds (ii) using familiar language and concepts from international criminal law (iii) keeping it simple by not including underlying crimes. The two thresholds relate to:

i) consequences, defined as severe and either widespread or long-term damage. If the damage is not severe, then the crime is not ecocide. It must also be either widespread or long term, a combination of which ensures only the most serious types of environmental harm are covered. This threshold alone could be problematic as it might capture actions that cause severe damage, but are justified and lawful (e.g. building housing, roads or farms), thus the experts narrowed down the potential cases by adding the second threshold.

ii) acts, which need to be unlawful or wanton. The former is straightforward – if it is illegal, one should not do it –, but alone it would allow states to legislate outside of liability, because most environmental crimes are found under national laws. Thus, wanton was added as an alternative, defined as ‘acts done with reckless disregards for damage which will be clearly excessive in relation to the social and economic benefits anticipated’. Allowing the court to lay harm against benefit conforms with the principles of sustainable development and takes into account the need for legitimate and lawful development, even if it still causes environmental harm. The expert panel believed this to be key to keep states on board, particularly developing countries. For the *mens rea* (the mental element) the panel used a ‘knowledge of recklessness’ standard, defined as knowledge that there is substantial likelihood of the consequences. This was deemed sufficiently but not overly strict.

Overall, ecocide (at least as defined by the expert panel), is a very serious and exceptional crime, only meant to deal with the most serious cases, but it can be an extremely important tool and powerful addition to the EU Environmental Crime Directive.

**Mr Alessandro Milita**, Deputy Public Prosecutor in Santa Maria Capua Vetere (Italy) and expert on mafia, focused on how to deal with environmental crime internationally, drawing on his direct judicial experience.

According to Mr Milita, it is well known that environmental crime is a growing concern causing significant damage also to the economy of a state. It is important to underline that where law enforcement regulations are inadequate; the greater will be the persistent environmental disaster and the risk for new ones. The sanctioning systems can be distinguished into 'apparent' or 'real', and it is necessary to remember the influence of large companies and lobbies in legislative choices.

In environmental crime, particular importance is assumed by the time factor, also in light of the complexity of the ascertainment of the fact. If, for example, the limitation period was to run from the initial assessment of the damage or even before, it would follow that the investigator would have an alternative: hastening the checks, with the risk of their consequent superficiality; or proceeding with accuracy, with the probability of relative uselessness.

From the 80s, mafia and Camorra started to operate an illegal waste trafficking, with Camorra mainly acting like a broker. In Italy, in the past, a situation similar to the one between developed and developing countries had risen. Northern Italian industries and companies found it profitable to engage with Camorra to unlawfully manage any kind of waste and finally dispose of it in landfills and dumps, mainly located in the southern Campania region.

In Italy, environmental crimes have not always been considered a serious offence. Only in 2001 it was recognised that waste trafficking was a serious crime, bringing to a change in law with the criminal provision of a new offence inserted in Article 452 *quaterdecies* of the Italian criminal code, punishable with imprisonment from 1 to 6 years. The main features of this crime are the presence of a structured organisation, large quantities of waste, continuous activity, unlawfulness and profit. The trafficking and disposal of radioactive waste is also punished.

Consequently, there were important procedural changes, and the crime is now provided with the same investigative tools used to fight mafia organisations. In case of investigation on illicit waste trafficking, it is envisaged that the district jurisdiction and investigation have to be conducted by Anti-mafia Sections of Prosecution Offices (DDA). Investigators have thus access to a national database where all relevant information gathered by each DDA section is collected.

Investigations conducted by the Neapolitan DDA have found that illegally managed waste can come not only from northern Italy, but in lesser quantities also from abroad (e.g. Germany). Other prosecution offices in Italy have investigated waste trafficking exported from Italy to third countries (e.g. African and Asian countries). Investigations have started on the broader consequences of waste trafficking in Italy: environmental disasters or contamination of the aquifers as final stage of the waste management cycle. A leading case in Italy concerned a manager/lawyer convicted of poisoning ground water, irrevocably sentenced to 18 years in prison in addition to the confiscation of over EUR 20 million. The case was particularly complex; the trial required counting, within the first-degree judgement, for 191 public hearings.

The phenomenology of groundwater contamination is relevant to choose the best approach for each state. Groundwater is always contaminated by leachate after waste is buried, often even many years later. The event is therefore naturally postponed. It is a hidden event. The phenomenon is similar to an open tap that continues to distil poison within the water source; or to an explosive bomb, deferred over time (like a chemical time bomb).

Before May 2015, environmental disaster was an endangerment crime foreseen by a general article of the criminal code, punishable with imprisonment from 1 to 5 years. It was hard in the past to investigate and prosecute this crime, including any negligent conduct. In May 2015, further law approved the introduction of new offences in the Italian Criminal Code:

(i) *environmental pollution*, punishable with imprisonment from 2-6 years for those who significantly deteriorate the ecosystem or the state of the soil, water or air;

(ii) *environmental disaster*, punishable with imprisonment from 5-15 years for those who seriously and irreversibly alter the ecosystem.

Negligent conduct is also criminalised. These crimes provide for *extended confiscation and confiscation per equivalent* of assets of the person found guilty. Allocation of proceeds derived from the crime towards the restoration of environmental damage is provided. Furthermore, legal person criminal liability is provided for all main environmental crimes, even negligent conduct.

The main interpretative issue has to do with the nature of the crime, if considered a permanent offence rather than an instant one, and any proposal must first solve this crucial puzzle. For example, dumping of waste can have devastating effects that remain often invisible. Disasters are usually evident only several years after the events and persist – or can also worsen – as time passes. The prescription of the offence depends on the legal qualification.

The main proposal for the definition of environmental disaster is that of *'permanent offence, mainly hidden, temporally deferred with respect to the conduct, with latent and lasting damage'*, according to the Court of Justice of the European Communities – *Howald Moor v Switzerland*.

Last year, taken from the experience of herbicidal warfare, a new definition was proposed, called *ecocide*, earlier discusses in detail. Several countries codified ecocide as a crime, punished with imprisonment in general from 10-20 years. The main definitions concern the use of terms like: (i) contamination of atmosphere, land and water resources; (ii) mass destruction of flora and fauna by poisoning the environment, the soil or water resources; (iii) ecological catastrophe; (iv) ecological or environmental disaster; (v) destruction of natural environment or massive destruction of ecosystems. The Italian definition of environmental disaster is similar to the definition of ecocide in other countries' criminal codes, with similar penalties. According to Mr Milita, while avoiding mere symbolic functions, the reflection on the criminalisation of ecocide could be an opportunity to rationalise the existing material.

The main proposal is for the attachment order and confiscation to be calculated to repair human health and the environment, therefore estimating the cost of restoration of environmental damage. A widespread model to establish legal persons' criminal liability, similar to the Italian law, is necessary. It is necessary that in all cases of environmental damage or transnational disaster the fine reaches the state of the nation whose territory it happened. In fact, the proposal should be: (i) an equity fine or capital fine, managed by the victims, to share projects and investments in the community or (ii) traditional fine, the amount of which is used to build trust. If administrated by victims, the fine can function as 'spinoff' reparation. This is the only way to effectively fight environmental crimes in all their dimensions.

**Mr Michael O'Connell**, from the World Society of Victimology (WSV), focused on the victims of environmental crime. In fact, the toll on human beings and on non-human victims of these crimes is enormous and a number of questions need to be considered in any discussion on the topic.

(i) Who is the victim of crime? In domestic laws, the definitions tend to be narrow, including only a natural person who is directly harmed. Harm is taken to mean personal and psychological injury. Only in circumstances where the victim is deceased, immediate family members also fall within this category. On the one hand, these definitions identify real victims; on the other hand, it has been said that they ignore the politically inconvenient victims. The 1985 UN Declaration on Basic Principles of Justice for Victims of Crime and Abuse of Power (considered soft international law – albeit with

significant impact), defines victims as *“persons who, individually or collectively, have suffered harm, including physical or mental injury, emotional suffering, economic loss or substantial impairment of their fundamental rights, through acts or omissions that are in violation of criminal laws operative within Member States, including those laws proscribing criminal abuse of power”*, which in some circumstances incorporates immediate family members as well as those people who first respond (e.g. bystanders, emergency workers). Often overlooked is paragraph 18, which refers to the Declaration also covering victims of acts or omissions that do not yet constitute violations of national criminal laws, but of internationally recognised norms relating to human rights. Thus, the Declaration covers not only conventional notions of crime, but also non-criminal activities that have yet to become criminal but are still violations of human rights. In those circumstances, the definitions cover individual and collectives of people. In the context of environmental criminalisation, this issue has been advanced by the European Court of Human Rights.

(ii) Who is victim of environmental crime? According to some, victims can be categorised by the wrongful act itself, by the extent to which the damage has been suffered, the scope of the harm, or the perpetrator of said harm. There are a number of ways to think about this, and only some tend to be encapsulated in legislative instruments. Looking at the victim's characteristic, a number of points can be made. For example, victims may be unaware they are being victimised. In Indonesia, a mine was providing employment to many people in a local village, but the village relied on a river as their major water supply and substance of animals (among other things), which was being polluted by the mine work. Thus, on the one hand, the mine was providing employment and some form of income, but on the other, these people were contributing to their own victimisation without being aware of it. Moreover, victimisation is often delayed, with victims becoming aware of it very late, as in the Swedish plumping example noted earlier where exposure lasted over 20 years. Victims are also not sure about who exactly is responsible, given the transnational nature of these crimes. Pollutants cross geographical and socio-political borders, rendering it very difficult for victims to identify who should be called to account. The Great Pacific Garbage Patch (a consequence of plastics that are being gathered through the entire Pacific Ocean) is a fitting example, as it is having a devastating impact not only on pacific islanders' food chains, but also on fish and other animals living and relying on that ecosystem.

Another category to consider is that victimisation is usually serious because numerous victims are affected by the crime, not just one individual. One example earlier mentioned is mining in South America, in the Amazon and indigenous territories, where there has been no attempt to repair the environmental damage caused. In this regard, the UN Declaration on Rights of Indigenous People provides for their fundamental right to the conservation and protection of the environment, as well as the productive capacity of their lands, territories and resources. To conclude, victimisation can often include repeat offences.

When it comes to EU law, a number of instruments provide for the rights of victims of crime, though the question remains as to what extent they can be extrapolated to cover all the dimensions at play when it comes to victims on environmental crime. For example, to what extent can they provide for victims in one jurisdiction who need to come under another one for the purpose of giving evidence, or for attempting to access justice mechanisms? To what extent the right of harm victims to compensation, currently covering victims of violent crime that happens abroad, could be expanded to provide for victims of environmental crimes that happen abroad, where the impacts and needs are very similar? In some circumstances, because of the massive nature of the environmental incident, then they can actually be far greater.



Some of these things appear infeasible, given the cost to governments in these particularly challenging times after the COVID-19 pandemic. There are though some options available, and lessons that can be learnt, for example from the way in which transnational organised crime has been addressed. It may be possible to support some of these initiatives by using confiscated assets and the money derived from them not only to fund compensation and reparation programs, but also the restoration of the environment. Mr O'Connell concluded noting that, due to the time, it was not possible to touch upon non-human victims, but we should consider: who speaks for them?

**Prof. Dr. Liliana Lizarazo Rodriguez**, Professor at the Brussels School of Governance (Vrije Universiteit Brussel), focused on the issue of policy coherence, particularly regarding the situation of victims of transnational and environmental harms.

A study published by the EU Fundamental Rights Agency in 2019 showed how reported incidents involving EU companies in the world regarding human rights abuses mainly dealt with environmental protection. This means that most crimes framed in terms of human rights are in fact dealing with environmental issues.

Even if one may be unaware of the issues connecting human rights with environmental crime, there is now an opportunity for action, as the human rights approach is missing from the proposal to reform the Environmental Crime Directive. The role and necessity to hold companies accountable, particularly those headquartered in the EU, is something that is very important.

Prof. Dr. Lizarazo's research team identified a number of gaps, which are complicated for victims of transnational crime, such as restricted jurisdiction in environmental procedures. Having these types of transnational accountability is more difficult in terms of criminal law than in terms of civil law, and more inter-state cooperation is needed. This is already a challenge within the EU and is even more complicated when dealing with developing countries.

Another important point is the lack of collective action, as leaving the victims to lodge the complaints collectively is a serious barrier. It must be taken into consideration that the right to a healthy environment is a collective right as such. Moreover, the EU Charter of Fundamental Rights also regulates 'healthy environment', not necessarily as a right, but as a principle.

The criminal responsibility of legal persons is recognised in many countries in the EU, but it is not generalised. This is an important point of the reform. Moreover, the possibility to hold accountable the director of a company is crucial, although it may raise difficulties in respecting the guilty principle and the extent to which establishing strict liability may not respect this principle of criminal law. It also raises the question of who provides effective remedy for the victims, if the director is accountable and not company, and *vice versa* (e.g. if the company only has limited responsibility).

Some current EU initiatives are important for policy coherence, such as an EU taxonomy and the new Due Diligence directive, where the focus is not only on the corporate group and the director, but also the corporate board, shareholders and funding institutions (e.g. the EIB). This is recognising the role they may have in allegedly causing serious harm in other – particularly developing – countries and subjects them to being held accountable.

Current trends in international law are moving from the pure environmental regulation (that is basically targeting the hazards of companies), towards a more human rights approach. It is not anymore only about causing harm to the environment, but also about the situation of victims in practice. We are moving towards an international regulation of human rights and their connection with the planet. This is crucial because there are international conventions dealing with environmental protection, but also regional ones as *inter alia* the EU Charter of Fundamental Rights

and the Aarhus convention. According to the UN Guiding Principles on Business and Human Rights, it is not only about the corporate responsibility, but also state responsibility of home countries where companies are headquartered to regulate their conduct as well as their partners in other countries in the world.

To conclude, it is very important to have more policy coherence within the EU. The proposal for the Due Diligence Directive does not have a clear link with the reform of the Environmental Crime Directive. Some mentions could function as links, but there is no clear coherent coordination between the two, as well as with other current initiatives at EU level. For instance, in the proposal for a new Environmental Crime Directive, one of the sanctions is to require the perpetrators to conduct due diligence, while due diligence is actually about analysing the reasons for the company's conduct and a sort of 'good practice'. In addition, there is the possibility of holding accountable in the EU not only EU residents, but also when the offence is committed for the benefit of persons established within the territory. It needs to be checked to what extent this voluntary choice for the Member states is coherent with the new Sustainability Due Diligence Directive, where we are dealing with structured due diligence for all companies. Moreover, it is important to look at the progressive approach of the Third Revised Draft Treaty on Business and Human Rights, referring to legal/criminal liability, not only civil (which is the case for the Due Diligence Directive), and to have a human rights based approach in order to take into consideration what is the outcome for victims.

## 4.2 Debate

**MEP Maria Arena** (S&D Group), Chair of the Subcommittee on Human Rights (DROI), opened the debate by highlighting how DROI has worked extensively on the issues of climate, environment and human rights. When climate change prevents communities from living, it is their very right to life that is being affected. This is essential, for example, when one thinks about toxic substances, where people's right to health is being threatened. Work has been done in the ENVI committee on the issues of chemicals pollution and endocrine disruptors, where people's fundamental rights to health and a healthy environment are being threatened. These links are clear, and this is the case in Europe but also when working with third countries. Environmental crime also has indirect impact, such as movements of populations, affecting the right to migration and the right to have protection. There is also the issue of protecting human rights and environmental rights defenders, very often targeted (e.g. in South America), together with journalists defending transparency. The rights of indigenous communities to live on their own territories must be protected, as it is also a fundamental right.

There are a number of tools that can be used to work on these issues, as the EU, national and international regulations do exist. The UN Treaty on Due Diligence has been mentioned, as well as the current EU proposal for a new Due Diligence Directive. This has several defects which need to be properly addressed, though it is a good thing that it is in place. The connection between with the Environmental Crime Directive must be considered, but there are other instruments as well, such as trade agreements (including their sustainable development chapters) which do not always provide for sanctions. It is key to not only talk about sustainable development, but also discuss the effects of trade agreements on the environment (e.g. with Mercosur, or the Timber Regulation which may be partly amended). We have to better protect and encourage engagement of countries with regards to these agreements. Moreover, the issue of taxonomy has become increasingly important after the Ukrainian crisis, as fossil fuels and gas are no longer sustainable.

There must be coherence and coordination between EU instruments, as human rights and environmental rights are very closely linked. The idea of extra-territoriality is also crucial, which recently came up in a debate with Mozambique. To conclude, 'we have to clean our home, but can't



just send the waste elsewhere', in the figurative and literal sense. Europe cannot do something within its borders and act differently outside of the EU.

**Ms Anabella Sibrián**, Regional Director at Protection International Mesoamerica, welcomed the promotion of research and the fight against environmental crime in Europe as well as the inclusion of a human rights approach, as it is in line with the external aspect of combating these crimes in Central America.

According to the International Labour Organisation data, 1/5 of Latin American people are indigenous. In 2018, the Secretary General for Integration in the Americas produced a map of all protected areas and indigenous lands, showing how these areas hold about 70 % of biodiversity and ecosystems in Central America. In Guatemala, these indigenous people are suffering from persecution for defending the environment; they are the main victims of environmental damage and instead of being protected by the state they are persecuted in the face of corruption and a business context that amounts to criminal activity. Since last year, defenders have trusted the Escazú agreement, symbolising a change to bolster protection of those who defend the environment in Latin America. However, Guatemala has signed but not yet ratified the agreement. For victims in countries with fragile rule of law system, the ability to investigate environmental crimes must be improved. The World Bank, EU countries and other actors will be key for this. Ms **Sibrián** suggested three urgent complementary measures: (i) demand companies and investors to respect the rights of indigenous people and ensure that no activities are undertaken on their territory without their informed prior consent; (ii) ensure that companies and investors comply with their responsibility for due diligence, together with the whole chain, to prevent increasing transnational environmental criminality; (iii) publicly recognise the importance of environmental rights defenders and communities, who often face violence when they speak up.

**Ms Miriam Pixtun**, from the Centre for Human Rights Legal Action (CALDH) in Guatemala, presented the perspective of women and indigenous people, for whom environmental crime constitutes one of the leading causes of global warming. This jeopardises their right to life because impact on soil, water and air is often irreversible. These are basic elements for life and therefore people, organisations and social communicators dedicate time to defending their territories in the face of environmental crime. However, in countries such as Guatemala and others, states alongside companies criminalise, stigmatise and even murder or imprison the people that speak up against these crimes. Women and indigenous peoples are worst hit.

Ms Pixtun looked positively on there being spaces for debate where global warming and its causes are seen as important issues. Throughout the history of Guatemala there have been a number of environmental disasters that have gone unpunished. As a result of corruption in the country and impunity, many extractive companies are active on the ground, actively promoting said impunity and corruption, and trampling on human rights. It is important to highlight how extractive companies in these contexts do not abide by national legislation nor internationally ratified legislation on environmental and human rights. Moreover, in Guatemala, even though there is a special public prosecutor for environmental crime, there has been no prosecuted cases in the country. In fact, the public prosecution office uses this state machinery to repress and criminalise environmental and human rights defenders. In this regard, it is very important that initiatives like the Proposed Directive can hold EU companies to account when they act in Latin American countries, especially in Central America. They must respect national legislations and must not commit human rights abuses. Another important element, which is very clear in the case of Guatemala, is that laws and standards are not enough if there are no robust institutions, a strong democracy and judicial independence, which allow for these standards to be properly enforced. In

Guatemala, the judicial system is not independent and regardless of strong legislation it has not guaranteed the rights of people in the different territories. On the contrary, judges are actually being prosecuted for defending legal independence, many times also for instances relating to environmental crimes.

In her closing remarks, **MEP Caroline Roose** thanked all speakers and participants for their interest. She remarked there is a lot of work to be done on the Directive and it is crucial to continue to put environmental crime at the heart of the debate.

## 5 Main takeaways

The main conclusions that can be drawn from the speakers' presentations are:

- There is a need for **clear, consistent and comprehensive legislation**, including definitions which account for the peculiarities of environmental crimes (e.g. broad definition of victims; no statute of limitations) as well as **stronger policy coherence**, also in the EU's framework.
- The **definition of ecocide** should be included in the new EU Environmental Crime Directive.
- **Jurisdiction** must be clearly and broadly defined, ensuring the means to hold EU companies as well as international corporations to account.
- **Punishments** must be credible (currently, there is a low-risk high reward situation) with clear **legal/criminal liability**.
- Strong **due diligence** and **increased transparency** are needed (source to destination).
- **Transnational cooperation** and **formal cooperation** with developing countries should be enhanced.
- **Technical assistance** and **capacity building** programmes should be reinforced, particularly targeting law enforcement capacities in developing countries.
- Stronger **rule of law** in developing countries is needed and **high corruption levels** in local governments, which foster environmental crimes, must be addressed.
- There is a need for **increased awareness, knowledge sharing and best practices** about environmental crime, so as to place it higher on political agendas. Moreover, awareness raising is required on the **potential for money laundering and fraud** linked to environmental crimes, especially among banks and financial institutions.
- **Local civil society** should be involved and consulted at all stages.
- To address poverty-induced crimes, **providing alternative livelihoods** is crucial.
- **Links between environmental crime and human rights abuses** (e.g. right to a healthy environment, right to life) need to be strengthened, particularly in recognising the higher vulnerability of **indigenous people and local communities**.
- Local communities and **defenders** in their fight against environmental crime must be **supported and protected**, as well as the **rights of victims of environmental crimes**, including their right to compensation (e.g. via the use of confiscated assets; reparations)
- Overall, efforts should be underpinned by furthering research in the field to **gather reliable data**.

## Annex - Speakers' bios.

### **Panel 1 on the prevention and fight against environmental crime in developing countries**

**Prof. Dr. Ragnhild Sollund** is Professor in Criminology at the Department of Criminology and Sociology of Law at the University of Oslo. Dr Ragnhild Sollund has primarily worked with topics related to green criminology and ecofeminism, Wildlife crime in Norway, Colombia and Brazil, Practices and Law enforcement, Police studies (racial profiling), Violence and Migration Research. She is currently working on issues pertaining to green criminology, particularly wildlife crime. In 2018, Dr Ragnhild Sollund received funding from the Research Council of Norway FRIHUMSAM programme for the project CRIMEANTHROP - Criminal justice, wildlife conservation and animal rights in the Anthropocene. Dr Ragnhild Sollund was one of the initiators of Nordic green criminology and coedited the first Nordic anthology on green criminology.

**Prof. Dr. Tanya Wyatt** is Professor of Criminology at Northumbria University in Newcastle, UK. She is a green criminologist specialising in wildlife crime and trafficking and nonhuman animal abuse, and the intersections with organised crime, corporate crime, and corruption. Her publications include *Is CITES Protecting Wildlife?*, *Hazardous Waste and Pollution*, and more than 40 journal articles on environmental crime. Professor Wyatt has consulted for the Environment Committees of the UK and EU Parliaments as well as the US Agency for International Development and National Intelligence Council.

**Dr. Marcos A. Orellana** was appointed Special Rapporteur on toxics and human rights in August 2020.

Mr Orellana is an expert in international law and the law on human rights and the environment. His practice as legal advisor has included work with United Nations agencies, governments and non-governmental organisations. including on wastes and chemical issues at the Basel and Minamata conventions, the UN Environment Assembly and the Human Rights Council.

Professor Orellana teaches International Environmental Law at the George Washington University School of Law and International Law at the American University Washington College of Law.

**Lejda Toçi** is a Programme Officer at the Environment Team of the UNODC Border Management Branch. She is based at UNODC Headquarters in Vienna, Austria. Ms. Toçi coordinates the work of the programme on crimes in the fisheries sector, including the delivery of both normative and technical assistance in Asia, Africa and Latin America.

Before joining the UNODC, Ms. Toçi's experience included working for the private sector, non-government organizations in the areas of global security and the environment as well as the foreign service of Albania.

Ms. Toçi holds a Master of Science degree in Environmental Technology and International Affairs from the Diplomatic Academy of Vienna and the Vienna University of Technology.

The UNODC Environment Team works to improve the criminal justice and preventive response of member states to crimes that affect the environment. The Programme focuses on policy guidance and technical assistance in several areas such as strengthening national legislation, building up States' scientific, investigative, prosecutorial and judicial capacities, and establishing internal mechanisms to undertake financial investigations and anti-corruption programmes.

**Christian Nellemann**, PhD, Fulbright Fellow, Director of RHIPTO Norwegian Center for Global Analyses. Nellemann has worked in five continents and the Arctic, covering a broad range of

environmental and security issues from environmental and transnational organized crime, including antipoaching to climate change, wildlife ecology, food security, disasters and conflicts, and threat finance. He has worked extensively frontline and collaborated with INTERPOL, UNEP and UNODC on combating illegal tropical deforestation, designing intelligence-led programmes and pioneered global and regional assessments on environmental crime. Nellemann has built training programmes for game scouts and rangers in Africa on tracking and crime scene management, having trained over 2,500 rangers across many countries. He has led as editor in chief over 30 global and regional UN assessments including with UNEP, UNODC, INTERPOL, UNESCO and others, published over 40 scientific papers and 150 reports and contributed or led over 250 intelligence reports on threat finance and environmental crime, including presented in the UN Security Council and invited to the US Presidential taskforce on Wildlife trafficking. He has contributed to numerous hearings, panels, incident response teams and task forces as an expert for both parliaments, US Congress, Supreme courts, and different international and government agencies in many countries including defence and law enforcement.

**Patrick Alley** is one of the three founders of Global Witness, the first organisation to investigate the links between corruption, conflict and human rights and environmental abuses. Patrick has taken part in numerous undercover investigations including into the timber trade that funded the genocidal Khmer Rouge in Cambodia, the Arms Trade that fuelled Charles Taylor's brutal civil war in Liberia, the logging of the forests of the Congo Basin and the killings and criminalisation of land & environmental defenders in Peru and Brazil. Taking the findings of these and similar investigations into the offices of heads of state, government ministries and into the boardrooms of some of the most powerful companies in the world, Patrick and his colleagues have challenged the belief that you can't change things. Global Witness has become one of the world's leading investigative organisations rooting out corruption and the abuse of power. Patrick has won numerous awards including the 2014 Skoll Award for Social Entrepreneurship. Global Witness were nominated for the 2003 Nobel Peace Prize for their work exposing the murderous trade in Blood Diamonds.

Patrick's book covering some of Global Witness' key investigations, *Very Bad People*, was published by Octopus Books on 17th March 2022.

#### **Panel 2 on the external dimension of the EC proposal for a Directive on the protection of the environment through criminal law**

**Éric Figliolia** joined Eurojust in February 2020 as Deputy National Member for France. After studying economics and political science in Paris, he began his career as a consultant for Euroconsult. In 2001, he decided to join the National School of Magistrates and became a judge. He was first assigned to the Court of Appeal of Versailles, then as executive judge at the Court of Versailles. In 2010 he became Deputy Prosecutor of the Court of Bobigny for two years before being seconded to the Superior Council of the Judiciary, as Deputy Secretary General of the Council.

From 2014 to 2018 he was appointed Deputy Prosecutor at the National Financial Prosecutor's Office, dealing with major financial cases. This is when he became a "satisfied Eurojust customer", benefiting the support of the Agency in a major case. He then returned to the Court of Appeal of Versailles as Counsellor in the Chamber of Investigation, until he joined Eurojust.

**Richard J. Rogers** worked as a barrister in London, an attorney in San Francisco, and a senior United Nations lawyer at several UN war crimes tribunals – he was the Senior Legal Officer at the Appeals Chamber of the UN Tribunal for Yugoslavia, Principal Defender at the Extraordinary Chambers in the Courts of Cambodia, and Chief Legal System Monitor in Kosovo. Richard has particular expertise in the cross-section between international criminal law and mass environmental destruction, and

testified to this issue before the US Congress. He is a founding partner of Global Diligence LLP, an international legal advisory firm specialising in international crime and human rights. Richard is on the advisory board of the Stop Ecocide Campaign and a Trustee of Sophia Point Rainforest Research Centre (Guyana). He has lived and worked in Africa, Asia, America and Europe. Richard was Deputy Co-Chair of the Independent Expert Panel for the Legal Definition of Ecocide, that released the proposed definition on 22 June 2021.

**Alessandro Milita** is Deputy Public Prosecutor at the Prosecutor's Office of the Italian Republic in Santa Maria Capua Vetere (near Naples) since March 2017. Having entered the judiciary in 1994, he began his career of public prosecutor at the Prosecutor's Office of the Italian Republic in Brescia, where he pursued several investigations in important proceeding in economic and financial offenses. In 1999, he became public prosecutor at the Prosecutor's Office of the Republic in Naples where, until 2002, he carried out investigations against terrorism, subversive crime and drug trafficking. He was designated, from 2003 to 2013, at the Prosecutor's Office of Anti-Mafia District Directorate of Naples and during this time he investigated mafia organizations, overall the notorious "clan dei casalesi". In addition, he investigated for a long time the Camorra's role in waste trafficking. He also led the legal proceeding that resulted in the irrevocable conviction of one of the most important local entrepreneurs/lawyers to 18 years in prison, for the contamination of an aquifer (ground water) as part of the waste management cycle, an action led by Campania's mafia organizations.

Throughout his career, Alessandro Milita has taught at the Institute of Judicial Training of the Italian Magistracy specialized courses for investigations concerning the 'Eco-mafia', such as: 'investigative techniques for environmental offenses committed by criminal organisations', 'environmental crimes and organized crime', 'the new bill of Eco-crime', 'environmental disaster and the protection of the ecosystem', 'tools to fight against the ecomafie: the judiciary experience'.

**Michael O'Connell** AM APM is a consulting victimologist who previously served for twelve years as the first Commissioner for Victims' Rights, South Australia. Before that appointment, he was also for five years the first Victims of Crime Coordinator in that state. While employed as a police officer, he was the inaugural Victim Impact Statement Coordinator. Michael is a life-member of the World Society of Victimology (WSV) and its current Secretary-General and Chair of the WSV UN Liaison

Committee. He, in addition, is a Vice-President for the NGO Alliance on Crime Prevention and Criminal Justice (which is affiliated with the UNODC), and a foundation board member for Victim Support Asia. Michael lectures and writes in the field of Victimology, as well as volunteers as an expert for United Nations' activities, such as the development of Model Legislative Provisions to Support the Needs of and Protect the Rights of Victims of Terrorism. He has advised police on their role in 'policing the environment', promoted Victim Impact Statements in sentencing persons guilty of environmental crimes, and spoken for the WSV on victims of crimes that affect the environment. Furthermore, he collaborated with staff at the former International Institute of Victimology, Tokiwa University, Japan, on a project to raise awareness on the 'hidden victims' of crimes against the environment.

**Prof. Dr. Liliana Lizarazo Rodriguez** is a Research Professor in sustainable development law at the Brussels School of Governance (Vrije Universiteit Brussel), where she is also Programme Director of the LLM in International and European Law programme. She is an expert in the areas of Business & Human Rights, law and sustainable development and judicial adjudication. At BSoG, she carries out the project CURIAE VIRIDES, funded by the European Research Council (ERC Str. Grant 909496). This project conceptualizes the worldwide progressive transition of human rights litigation into more

ecocentric litigation and the role of courts in addressing ecological governance gaps. Liliana obtained her PhD at the Department of Interdisciplinary Study of Law, Private Law and Business Law of the University of Ghent.

---

PE 702.565  
EP/EXPO/DEVE/FWC/2019-01/LOT3/1/C/08

Print ISBN 978-92-846-9664-2 | doi:10.2861/534693 | QA-07-22-609-EN-C  
PDF ISBN 978-92-846-9663-5 | doi:10.2861/628574 | QA-07-22-609-EN-N