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1
the landscape of criminalization

GLOBAL ANALYSIS ON
CRIMES THAT AFFECT THE ENVIRONMENT

UNODC Research

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The Global Analysis on Crimes that Affect the Environment:

Part 1
The Landscape of Criminalization

May 2024

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Findings

Overall criminalization of activities that harm the environment

- No single international legal instrument comprehensively protects the environment, criminalizes all behaviours that harm the environment, nor defines crimes that affect the environment. The legal protection of the environment is a complicated patchwork of international and regional agreements ratified and transposed to varying degrees into national legislative frameworks. Such complex and unharmonized regulations create a landscape where criminal and/or economic interests can take advantage of loopholes and gaps in legislation and its enforcement as well as a landscape conducive to criminal infiltration of legitimate sectors.

- Today, many countries make use of the law and criminal penalties to protect the environment, although with some differences across environmental areas. In most countries in the world, prison sentences can be imposed for violating laws regulating deforestation and logging, mining, air pollution, noise pollution, soil pollution, water pollution, fishing, waste, and wildlife. A high rate of criminalization of harmful behaviours exists across these nine environmental areas. Wildlife and waste are the areas where most countries have at least one related criminal offence in their national legislation. Soil and noise pollution are the areas where the fewest countries have criminal provisions.

- The level of protection afforded to the environment is related to the conditions of each country. For example, all the countries of Southern Africa regard offences related to air pollution, deforestation and logging, mining, waste and wildlife as criminal acts. In contrast, no countries among the small island states of Micronesia regard violations of deforestation and logging legislation as a crime, perhaps because commercial forestry is not an issue in the region.

Activities that harm the environment considered as serious crime

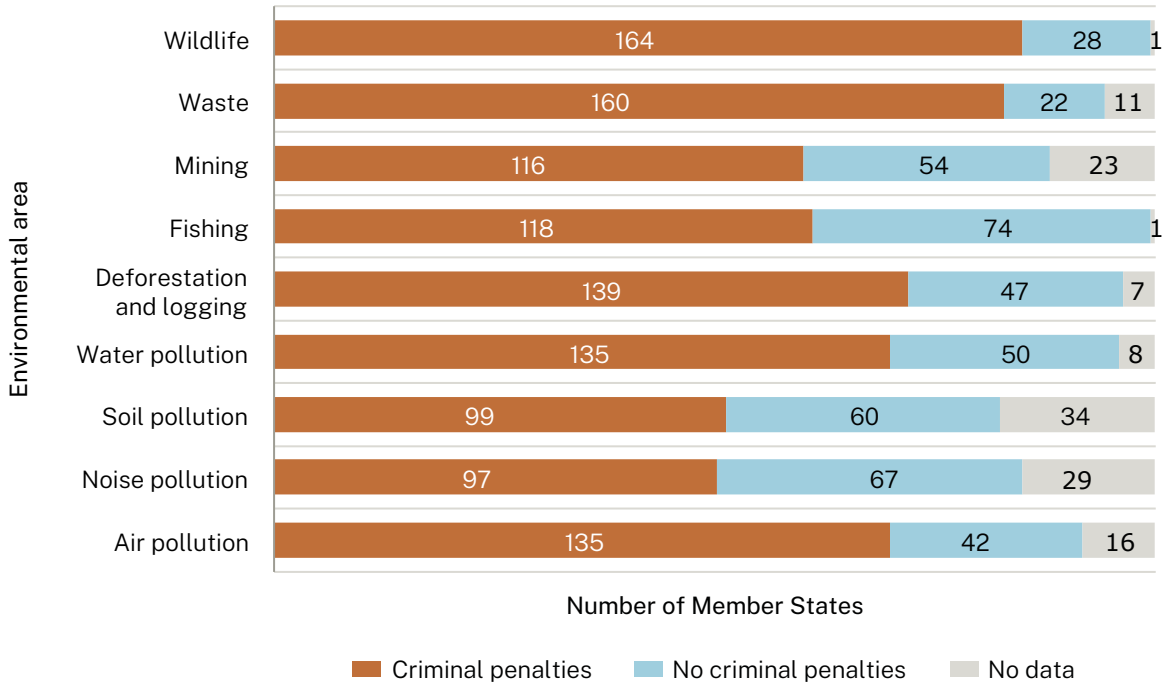
- At least 85% of United Nations Member States criminalize offences against wildlife and at least 45% punish some of these offences with four years or more in prison, which constitutes a serious crime under the UN Convention Against Transnational Organized Crime (UNTOC). For example, in Eastern Africa, 12 out of 18 countries regard wildlife offences as serious crimes, with the potential for long prison sentences, while illegal fishing is considered most grave in Oceania, where 43% of the countries regard it as a serious crime.

- Waste offences are taken even more seriously, with almost half of the countries regarding these offences as serious crimes, including half the African countries (perhaps due to the Bamako Convention) and 62% of countries in Western Europe. Waste offences is also an area where the liability of legal persons (such as corporations) is recognized in over three-quarters of countries.

- Africa and the Americas have the highest proportions of countries with criminal offences related to all nine environmental areas analysed, while Africa and Asia have the highest average percentage of Member States with penalties meeting the serious crime definition across the nine crimes (30 per cent respectively). Where there are no criminal offences, countries typically use administrative offences (see Figure 1).

- The highest average percentage of Member States with penalties meeting the serious crime definition are in Africa and Asia, indicating not that legislation there may be 'weak', as is commonly stated, but that there is a lack of enforcement of the legislation.

Figure 1 – **State of criminalization (Number of UN Member States)**



The role of international conventions

The two environmental areas with the highest levels of criminalization – waste and wildlife – are, at least in part, governed by international conventions – the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) respectively. Both conventions have been widely ratified by UN Member States (188 and 183 respectively – see Figure 2). The requirement of the Basel Convention to criminalize violations of its provisions explains the high level of the criminalization of waste violations (of 160 Member States that criminalize, 157 are parties to the Basel Convention). In terms of wildlife, CITES does not specifically require criminalization. The high level of criminalization of wildlife violations is likely a combination of decades of campaigning related to wildlife protection, CITES having existed for 50 years (nearly twice as long as the Basel Convention), and CITES' National Legislation Project that evaluates implementation of the convention.

Ecocide

- Some countries define ecocide as a crime (see Rights of Nature and Ecocide). The crime of ecocide cannot replace the consideration for criminalization of harms that affect the environment, but instead it may be a helpful complement in the most egregious or systemic cases.

Known Liability of Legal Persons

- Liability of legal persons is an important aspect to crimes that affect the environment as often legal persons such as corporations are the offenders. Violations of air pollution (120 Member States) and waste regulations (146 Member States) are the most likely types of offences for which liability of legal persons is expressly established in the environmental legislation.

Figure 2 **– State of criminalization of the parties to the Basel Convention and CITES by UN Member States**

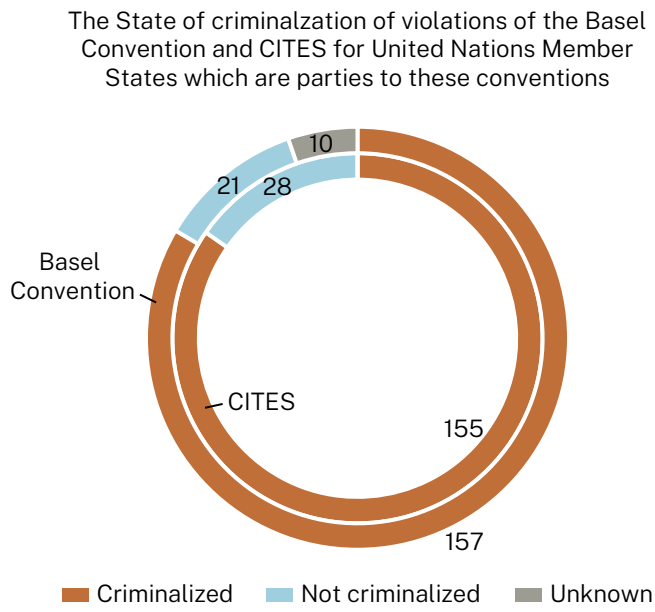
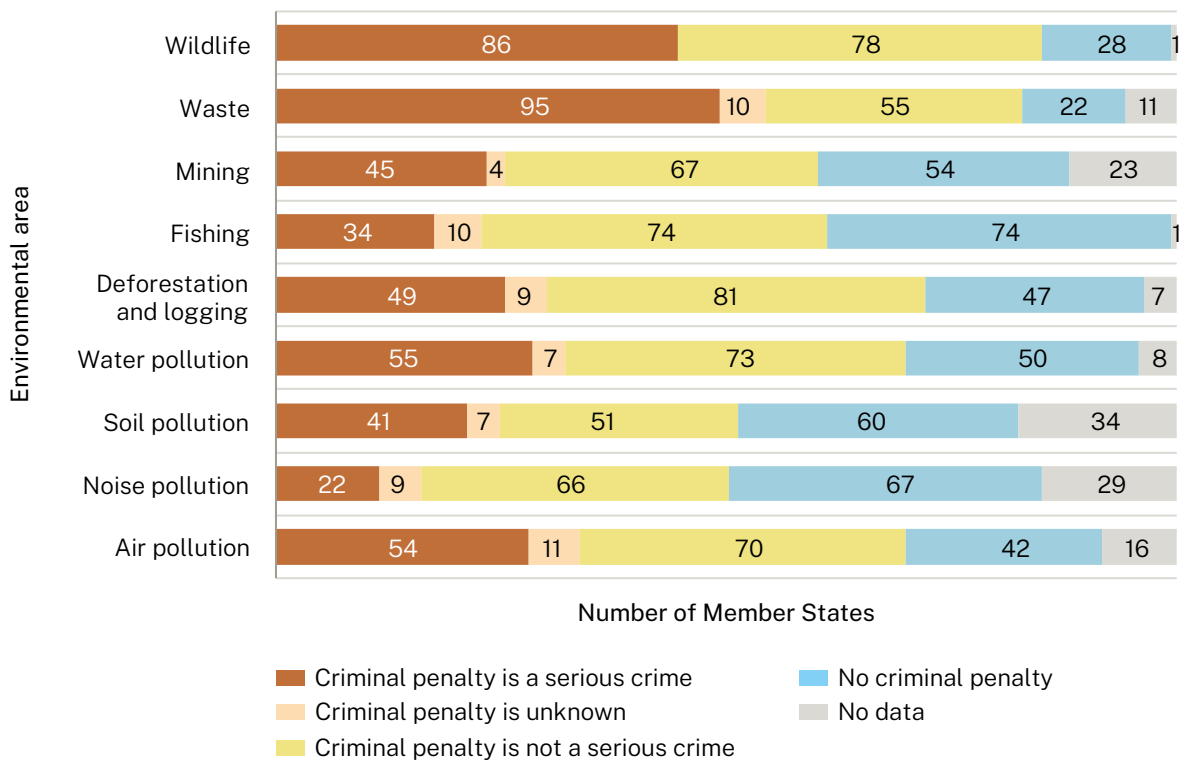


Figure 3 **– Member States with legislation meeting the UNTOC definition of serious crime of at least four years in prison**



Repeat Offences

- Relatively few Member States appear to address either recidivism or ongoing violations directly in their environmental legislation.

Confiscation of instrumentalities and proceeds of crimes

- Overall, confiscation provisions for activities that harm the environment do not appear common in environmental legislation; for example, of the legislation reviewed for this analysis only 37 countries provide for confiscation regarding water-related offences, despite 135 criminalizing water pollution. Other legislation, including criminal legislation, may cover such situations.

- Further, confiscation provisions more commonly appear to apply to equipment or objects (e.g., vehicles or wildlife products) related to the crime rather than profits or proceeds, particularly but not exclusively with respect to pollution crimes.

Compensation, restoration, and restitution

- While provisions exist providing for restorative injunctive relief (compensation for environmental damage or funds to restore the environment), these provisions are less common than the criminalization of offences.

Conclusions and Policy Implications

This review of environmental legislation shows that countries have in place, to varying degrees, legal frameworks that criminalize activities that harm the environment. However, some environmental areas and geographical areas are less covered than others by criminal provisions, suggesting that some countries may perceive certain environmental areas less in need of protection, less exposed to harmful practices or more difficult for protections to be enforced. Establishing criminal or administrative offences is the first step to enforcing environmental protection, but their effectiveness depends on a number of factors, including the capacity of the criminal justice system to implement them. So, despite the progress made in environmental protection laws, there are a number of priorities to consider to strengthen national legislative frameworks to protect the environment:

- Criminal penalties for crimes that affect the environment, regardless of their nature and harm, remain low in many countries, below the threshold of serious crime. Not all crimes that affect the environment are of a serious nature and low-level offences require proportional criminal justice responses. But for the most harmful offences, penalties could be increased to meet the UNTOC definition of serious crime across all nine environmental areas analysed to enable Member States to utilize the UNTOC provisions for international cooperation (e.g., extradition, mutual legal assistance). Further examination of criminalization and penalties within (sub)regions is warranted to identify harmonization as well as potential loopholes where countries with the least stringent legislation and penalties may be targeted by offenders.[1] [2] [3]

- While international conventions seem to have an impact on the level of criminalization of wildlife and waste offences, even more improvements could be made in the context of the Basel Convention and CITES. For the Basel Convention, this is particularly the case in Latin America where 10 UN Member States do not criminalize waste offences and for CITES this is the case for Southern Europe and Western Asia where six and four UN Member States respectively do not criminalize wildlife offences.

- Very few countries have laws allowing for confiscation of the instrumentalities or the proceeds of environmental offences. These deficiencies may lead to the prosecution of minor offenders, rather than the large economic interests that often drive crimes that affect the environment. So, strengthening environmental legislation to cover seizure and confiscation of assets related to crimes that affect the environment is another area that needs urgent attention.

- Liability for legal persons is another area for improvement. Only 19 countries have known liability for legal persons regarding fishing-related offences and 20 for deforestation and logging-related offences, two environmental areas in which corporate malfeasance is common. This may indicate that economic interests may be blocking efforts to better protect the environment.

- Certain geographical areas could be prioritized for improving legal frameworks to protect the environment. For example, Central Asia for pollution and mining-related offences and Europe for fishing-related offences. Only 20 per cent of Central

Asian countries have provisions that criminalize pollution (noise, soil, water) and mining offences, despite being a region strongly affected by these crimes. And only 2 per cent of European countries regard fishing-related offences as a serious crime.

- While the analysis has revealed progress and challenges on how environmental law deals with the criminalization of activities that harm the environment, knowledge gaps remain. Additional analysis is needed on how corruption in these environmental areas is treated and penalized. Despite the level of criminalization, there is a lack of data on arrests, prosecution convictions, and custodial sentencing,[4] which calls for capacity-building in terms of data collection on crimes that affect the environment as well as on implementation and enforcement of existing legislation. Also, further research is needed into the enforcement of these legislation and the range of criminal penalties administered, and importantly, what the effects are of these sanctions. It is critical to understand which combinations of criminalization and restorative approaches are most effective at preventing crimes that affect the environment.

Introduction

The Earth is facing a triple planetary crisis – climate change, biodiversity loss, and pollution. One aspect of combating this crisis is protecting the planet through the criminalization of acts that harm the environment. Some international organizations and studies have called for legislative frameworks to be improved and for crimes that affect the environment to be defined as serious and/or organized crimes.[5] [6] United Nations General Assembly Resolution A/RES/76/185 also "calls upon Member States to make crimes that affect the environment, where appropriate, serious crimes".[7] Criminalization can be an important symbol that certain actions are prohibited. Having higher penalties for crimes can not only dissuade potential and repeat offenders,[8] [9] it can also broaden the range of investigative tools and resources for law enforcement.[10] In particular, if the offence is punishable by a maximum deprivation of liberty of at least four years or a more serious penalty, this enables parties to the UN Convention against Transnational Organized Crime (UNTOC) to apply extradition and mutual legal assistance.[11]

The extent of criminalization of harmful acts to the environment is unknown. This first publication of the Global Analysis on Crimes that Affect the Environment helps to fill these gaps in knowledge by answering the following research questions: To what extent does the environmental legislation of the 193 Member States of the United Nations criminalize actions that harm the environment? How are any such criminal offences penalized, and does this conform to the definition of serious crime set out in the UNTOC?

According to a 2022 background note from the Commission on Crime Prevention and Criminal Justice (CCPCJ), "Data on environmental crimes are collected only when a clear and separate definition of the legal offence exists in national criminal law. In many countries, for instance, actions that have a significant negative impact on the environment fall primarily under administrative offences or environmental or health regulations and are therefore not reflected in crime statistics".[12]

As noted in the above statement, harm to the environment is not always considered a criminal offence. An important, substantive distinction exists between criminal legislation generally and environmental legislation. Namely, environmental legislation is viewed as establishing the standards of behaviour and procedure for regulatory agencies and for legal and natural persons engaging in activities that in some way affect the environment. Typically, this includes provisions on how to obtain permits, reporting obligations, prohibitions and restrictions, and other regulatory provisions. Often, but not always, such legislation will make violations of the standards an offence. Sometimes these offences are treated as criminal offences and handled, when they occur, through the criminal justice system by state or local prosecutors; other times, the offences may be civil offences, creating causes of action that may be brought by the government or by citizens in the public interest. And sometimes offences may be treated administratively – typically, this means that the regulatory agency imposes a fine or some other type of penalty that does not involve the criminal justice system.

In contrast, a penal code or other criminal legislation or common law establishes those actions that are treated as criminal offences and that are prosecutable through the criminal justice system. Criminal legislation that could be relevant to the environment includes money laundering legislation, legislation that criminalizes corruption, and general criminal codes, for example. This legislation is not "environmental", just like environmental legislation is not "criminal" even though they intersect. This analysis looks at "environmental" legislation and asks whether such legislation includes criminal offences. It is not a comprehensive analysis of

criminal laws that might include environment-related offences.

In relation to environmental legislation, a complex interplay exists between international agreements, regional environmental agreements, national legislation, and even sub-national legislation (state- or provincial level legislation in Member States that are federated). Thus, to understand when an act is a *crime* that affects the environment, it is essential to examine this interplay. Regional and international treaties are voluntary instruments, but when a party ratifies an international agreement, the party is obliged to implement and enforce the terms of the agreement, which means, in many cases, ensuring that national legislation complies with obligations under the agreement.[13] Several regional and numerous international conventions have provisions relevant to crimes that affect the environment, and some may ask parties to the agreements to establish as criminal offences certain acts that harm the environment.[14] Figure 4 illustrates the legal instruments at the different levels of governance – there are fewer regional agreements, more international conventions, and thousands of national laws. Figure 4 also illustrates how national laws can be linked to the provisions of regional agreements and international conventions. These are color coded to show which regional agreements and international conventions are specific to climate change, biodiversity loss, pollution and waste, and the environment in general. These codes are somewhat oversimplified as there is not a clear distinction between these different areas and for example many forms of biodiversity loss and pollution and waste impact upon climate change and vice versa. Some of the most important of the regional agreements and international conventions are discussed below before an analysis of the state of criminalization for offences related to each of the nine environmental areas analysed (deforestation and logging, mining, air, noise, soil and water pollution, fishing, waste, and wildlife). An analysis of the geographic variations of criminalization follows.

Box 1 – RIGHTS OF NATURE AND ECOCIDE

Criminalizing certain acts that harm the environment is only one approach to protect the environment. National legislation may embed other ways to protect the environment. Just two examples (which may or may not incorporate some criminal law elements) are Rights of Nature and ecocide.

Rights of Nature

Rights of Nature is an approach that recognizes that nature, in whole or in part, has inherent rights to exist, thrive, and regenerate. Using this approach, some legal systems have enforcement provisions that protect those rights, such as by allowing cases to be brought on behalf of an ecosystem, an element of a particular landscape, a species, or even an individual animal when there is or is likely to be harm. Under the Rights of Nature approach, human behaviour may be subject to regulation to avoid harm to the environment or provide redress to compensate for such harm. Courts are typically the arbiters of claims that are put forward on behalf of nature, and injunctive relief may come in the form of remanding government decision-making, halting development projects, pollution control measures, or other protective or procedural orders.[15]

Among the several examples of Rights of Nature court cases, the Atrato River Decision in Colombia is instructive as an example of how such cases have the potential to engage Indigenous Peoples and Local Communities (IPLCs), protect the environment through law and policy, and restore damaged ecosystems. In this case, an organization brought a case to Colombia's Constitutional Court, and the court subsequently held that the Atrato River had legal personhood deserving of protection under the law as recognized by the Colombian Constitution. In its ruling, the Court, among other steps, ordered the development of a joint plan to halt illegal gold mining, including the seizure of any instrumentalities of such mining, the prosecution of any organizations or persons participating in illegal mining, and a plan to decontaminate the river and restore the ecosystem.[16] [17] The rationale behind the ruling was "*La tierra no le pertenece al hombre sino, por el contrario, es el hombre quien pertenece a la tierra*" – "The earth does not belong to man [any person], but rather, it is man [any person] who belongs to the earth."[18]

Ecocide

According to an independent, expert panel, "ecocide" is the "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."[19] The development of this definition exists as part of an ongoing campaign to have ecocide adopted as an international crime via the Rome Statute of the International Criminal Court. As it currently stands, "long-term and severe damage to the environment" constitutes a crime prosecutable at the International Criminal Court via the Rome Statute only when it occurs during wartime.[20] According to one source, some nations have begun to adopt legislative provisions that criminalize acts that may be categorized as ecocide.[21]

While adopting ecocide laws may help to reduce environmental harm, the definitional thresholds may be a barrier to prosecution when the crime of ecocide requires proving wanton or knowing mental states or the known likelihood of significant harm to the environment.

Regional agreements

Regional agreements, also referred to as treaties, are relevant to an analysis of criminalization of environmental degradation as they may ask Member States to have legislation that criminalizes the violations of certain treaty provisions. Two examples of this are the Bamako and Waigani Conventions, though there are many other relevant regional agreements. The Bamako Convention, officially known as the Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, was established in 1991 under the African Union. The aim of the Convention is to prohibit the import of all hazardous and radioactive waste into Africa,[22] and the dumping or incineration of hazardous waste in oceans and inland waters, while promoting environmentally sound disposal.[23] Among other obligations, parties to the convention are asked to make unauthorized imports illegal and "to introduce appropriate national legislation for imposing criminal penalties on all persons who have planned, carried out, or assisted in such illegal imports".[24]

The Waigani Convention, officially known as the Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region, was adopted in 1995. Like the Bamako Convention, it states that prohibited imports shall be deemed an illegal and criminal act in domestic legislation.[25] This convention entered into force in 2001 and is structured after the Basel Convention, serving as the South Pacific regional implementation of the international hazardous waste control system.[26]

International conventions

In relation to criminalization, of the numerous international conventions that aim at protecting the environment, only the Basel Convention includes a specific requirement to criminalize prohibited conduct under parties' domestic legislation.[27] [28] In all the other conventions, parties may choose to criminalize prohibited conduct, but no such explicit requirements exist. For example, the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) Article VIII explicitly requires parties to prohibit and penalize violations of trade in specimens in violation of the Convention, but it does not specifically ask Parties to *criminalize* these violations.[29] This means that parties can be compliant in implementing the provisions of the convention by employing administrative penalties to address wildlife offences. Other multilateral environmental agreements contain text to take 'necessary measures,' as opposed to requiring criminalization. For instance, Article 15 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade provides the following:

> *"Each Party shall take such measures as may be necessary to establish and strengthen its national infrastructures and institutions for the effective implementation of this Convention. These measures may include, as required, the adoption or amendment of national legislative or administrative measures..."*.[30]

In addition to the national legislation that countries have introduced in compliance with international conventions, there are a series of other national laws that have been introduced. Thus, to understand the state of criminalization of acts that harm the environment, it is necessary to look beyond regional agreements and international conventions and analyse each Member States' legislation.

Box 2 – WORKING DEFINITIONS USED FOR THIS ANALYSIS

To undertake the analysis of all 193 Member States' legislation for the nine environmental areas, an agreed-upon set of working definitions was adopted. These working definitions were taken from United Nations' entities with a mandate in the environmental areas – the UN Environment Programme (UNEP) for pollution and the Food and Agricultural Organization (FAO) for illegal fishing. The series of legislative guides produced by UNODC were also a source for these working definitions as the legislative guides are grounded in the relevant international conventions. For cross-cutting analysis of confiscation, liability of legal persons, and serious crime, the UNTOC supplied the working definitions. For environmental areas where there was no UNODC legislative guide or convention that covers all the relevant offences (illegal deforestation and logging, and wildlife crime), the working definitions were adapted from other similar crime types where a definition already existed.

Confiscation here refers to both the seizure and forfeiture of the proceeds of crime (though these are distinct concepts under UNTOC Article 2(f) and (g)).[31] The proceeds of crime are "any property derived from or obtained, directly or indirectly, through the commission of an offence".[32] In most cases, confiscation requires a proven connection between the crime and the property, which can be instrumentalities such as vehicles, real property (factories and warehouses, for example), contraband, offending substances like hazardous chemicals or waste, or the proceeds or profits related to a Crime that Affects the Environment. These divestitures serve several goals. They may punish an offender, act as a deterrent, disincentivize recidivism, compensate victims, or support future enforcement-related activities.

Deforestation and logging-related offences or illegal deforestation and logging – Any person who engages in forest clearing in violation of a Member State's legislative framework. It includes the illegal cutting, burning, or destroying of forest trees and the illegal digging or blasting of forests. Illegal logging is the process of harvesting, processing, or transporting of wood and derived products in violation of a Member State's legislative framework.

Fishing-related offences or illegal fishing – This refers to fishing "conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations", to fishing "conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law", as well as to fishing "in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization".[33]

Mining-related offences or illegal mining – Any person who engages in any mining activity of a mineral resource (a) without lawful authority where such authority is required by law; (b) without a relevant licence, permit, certificate, or other legal permission granted by the competent authorities; (c) by contravening the conditions of said licence, permit, certificate, etc.; or (d) in a manner that otherwise contravenes the relevant legislation.[34]

Legal person – Includes, but is not limited to, corporate bodies, companies, firms, associations, societies, partnerships, local governments, trade unions, municipalities, and public bodies.[35]

Liability of legal persons – The UNTOC requires States parties to establish a legal framework addressing the liability of legal persons for participation in serious crimes involving an organized criminal group.[36] Part 2 of Article 10 specifies that liability for legal persons may be criminal, civil or administrative and that two or all of these approaches to liability may exist at the same time. However, Article 10 (3) notes that such liability must be without prejudice to the criminal liability of natural persons involved in the offences. "Civil liability refers to civil penalties imposed by courts or similar bodies. Administrative liability is generally associated with liability imposed by a regulator, but in some legal systems judicial bodies may also impose administrative penalties. Like civil liability, administrative liability does not result in a criminal conviction".[37]

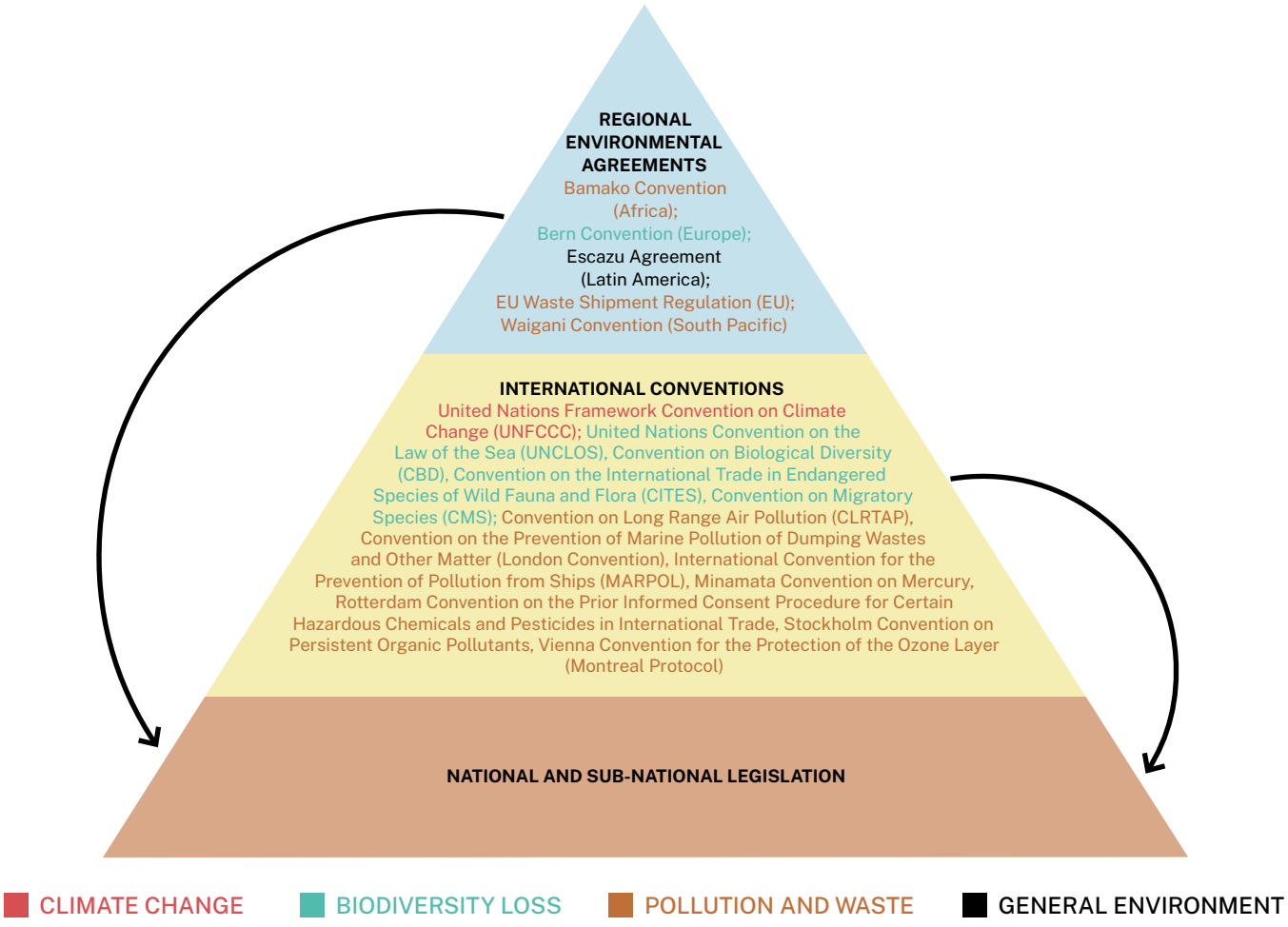
Pollution-related offences – is the "indirect or direct alteration of the biological, thermal, physical, or radioactive properties of any medium in such a way as to create a hazard or potential hazard to human health or to the health, safety or welfare of any living species".[38]

Restorative justice – "refers to a process for resolving crime by focusing on redressing the harm done to victims, holding offenders accountable for their actions and, often also, engaging the community in the resolution of the conflict".[39]

Waste-related offences become waste crime when any person engages in the trade, treatment, or disposal of waste in ways that breach international or domestic environmental legislation.[40] [41] The working definition here is broader than waste trafficking.

Wildlife-related offences become wildlife crime when any person engages in exploitation of wildlife in contravention of a Member State's legislation. This includes illegal wildlife trade[42] ("Any person who [intentionally/with the requisite mental state] traffics in any specimen: (a) of a species listed in [national lists and/or CITES]; (b) knowing that the specimen was taken, possessed, distributed, transported, purchased or sold in contravention of any national laws concerning the protection or management of wild fauna or flora; commits an offence"),[43] but also includes licence violations for hunting or harvesting as well as injurious behaviours not linked to illegal trade (i.e., badger and bear baiting).

Figure 4 **– Visual representation of the environmental legislation at different levels**



Each level of the pyramid provides some examples of environmental legislation. The majority of environmental legislation is at the national and sub-national level. There are fewer international treaties and even fewer regional treaties. The list of treaties is not exhaustive. The arrows indicate that some national legislation exists to comply with membership in regional and international agreements.

Methodology

This review presents the analysis of national environmental legislation from all 193 UN Member States. The review sought to answer: To what extent does the environmental legislation of the 193 Member States of the United Nations criminalize actions that harm the environment? How are any such criminal offences penalized, and does this conform to the definition of serious crime set out in the UNTOC? The review analysed 2,502 pieces of environmental legislation in 193 countries, looking for provisions pertaining to criminal offences related to deforestation and logging, mining, air pollution, noise pollution, soil pollution, water pollution, fishing, waste, and wildlife, as defined in Box 2. The breakdown of environmental legislation by crime type is presented in Table 1, including the number of countries where no legislation was identified. The legislative review comprised desk-based research, content analysis of the identified legislation, and inclusion of Member State responses to a request for them to share their legislation and related penalties (detailed below). All relevant legislation that could be identified through the ECOLEX and FAOLEX legislative databases, and UNODC's Sharing Electronic Resources and Laws on Crime (SHERLOC) knowledge management portal for each of the Member States was collated into a single database.[44] Then, a request for information regarding the accuracy of the legislation, the state of criminalization and whether offences met the UNTOC definition of "serious crime" was sent to all Member States. Thirty-two Member States responded to this request with information, confirming or correcting the legislation and specifying whether violations of the legislation were administrative, civil, and or/criminal and what the exact penalties were. Several Member States also shared relevant completed court cases. Each piece of all identified legislation was analysed. Unless submitted by a Member State or referenced in the legislation, the criminal legislation and penal codes were not reviewed; the focus was on the environmental legislation. Twenty-three Member States responded with criminal or penal codes to the request for information and thus these were reviewed as part of the analysis. Open source (automated) translation tools were used for translation, when necessary, although not all legislation gathered could be translated. In these cases, or in cases where the relevant legislation was not identified, the data for that Member State in a particular category was coded as "unknown" and is illustrated as "no data" (see Figures 6 through 14). If at least one violation of any of the legislation analysed for a Member State had a criminal penalty, this was recorded in a master Excel Spreadsheet as criminalization for that particular environmental area. Criminalization for each Crime that Affects the Environment was broken down by "Criminalized, not a serious crime", "Criminalized, unknown if a serious crime", or "Criminalized, a serious crime" referring to whether or not the penalty meets UNTOC's threshold of serious crime (see Figures 6 through 14).

In assessing whether a particular offence was criminalized (the first research question), a two-pronged analysis was employed. First, an offence was coded as criminalized if the Member State identified it as criminalized or the legislation identified the offence as one of a criminal nature. Second, if the criminalization status was not explicit, offences were coded as criminalized when accompanied by the possibility of a custodial sentence. To answer the second research question, crimes accompanied by a custodial sentence meet the UNTOC serious crime definitional threshold if the offence is punishable by a maximum deprivation of liberty of at least four years or a more serious penalty. As such, the legislation was analysed to assess whether a possible custodial sentence for any aspect of the offence could lead to at least four years of imprisonment or other deprivation of liberty, such as hard or forced labour. Typically, the severity of the penalty depends upon the circumstances of the offence, and legislation may not define a particular, singular penalty but rather a range that may ratchet

up or down depending on aggravating or mitigating circumstances. In general, across all Crimes that Affect the Environment, offences causing greater injury (e.g., large quantities of waste or pollution, trafficking of endangered species (CITES-listed)), those that are repeat offences, or offences committed by organized crime groups are those that meet UNTOC's definition of serious crime. Examples of how national statutes were considered in the classification of serious crime include the following:

- The statute states that the offence is subject to a penalty of "1 to 5 years' imprisonment." Four years is *possible*, so that was considered a "serious crime."

- The statute states that the offence is subject to a penalty of "1 to 5 years' imprisonment and/or a fine up to $50,000 USD." This also was classified as a "serious crime"; even though many people convicted under this provision may only receive a fine (or a custodial sentence much shorter than four years), four years' imprisonment or more *is possible/legally authorized*.

- The statute says the offence is punishable by "up to four years' imprisonment." This was also a "serious crime." The convention says, "at least four years," not "more than four years."

- The statute says the offence is punishable by "1 to 3 years' imprisonment." That was not considered a "serious crime."

To identify whether legal persons may be held liable under a particular law, the law was reviewed for an explicit provision or the definition of "person" or any other subject identified in the law. For the other data categories, such as whether injunctive relief, confiscation, fines, or other alternative sanctions might be available, the environmental legislation was reviewed, and relevant provisions were identified and the form of injunctive relief, the parameters of the confiscation, the amount of the fines, and the form of alternative sanctions were recorded, with the data disaggregated into each of these categories. Other elements of the analysis included whether within the environmental legislation there is the possibility of alternative or restorative forms of punishments. The forms of alternative punishments, such as restoration of the environment or compensation for environmental damage among other possibilities were identified and again recorded in their own separate column in the master Excel Spreadsheet. It is important to note that for all Member States additional legislation that was not analysed here may contain relevant information. The breakdown for each of the crimes along the criteria outlined is provided below.

Table 1 **– Breakdown of number of pieces of legislation that were analysed by environmental area across all 193 Member States**

Environmental Area	Number of Pieces of Legislation	Number of Member States where No Legislation was Identified
Air pollution	258	14
Noise pollution	194	25
Soil pollution	241	29
Water pollution	296	0
Illegal deforestation and logging	294	6
Illegal mining	226	20
Illegal fishing	304	1
Waste violations	267	8
Wildlife violations	472	0

The Analysis

The state of criminalization

Most Member States across the nine environmental areas considered in this analysis criminalize violations of their legislation, though there is variation across the nine environmental areas. Among these, violations of legislation related to wildlife, waste, deforestation and logging, along with air and water pollution offences were most likely to include criminal offences (see Figure 1 in the Findings). The crimes for which the penalties meet the UNTOC serious crime threshold in the highest number of Member States are wildlife crime and waste crime. These were followed closely by air and water pollution (see Figure 3 in the Findings).

Legal vs natural persons

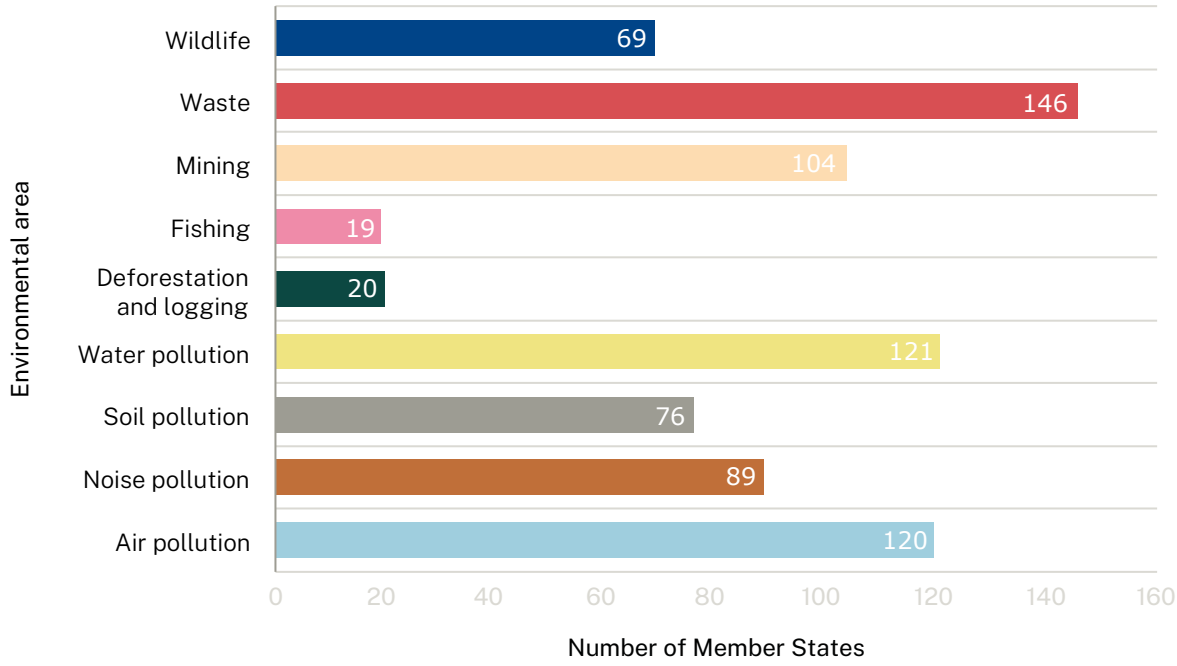
The environmental legislation was analysed for explicit reference to liability of legal persons. Violations of waste legislation and air pollution most frequently provided the potential to hold legal persons liable for offences. Noise and water pollution legislation appears to lag in holding legal persons liable and generally only appears to hold natural persons liable. As noted, it is possible that liability of legal persons is codified in other legislation not analysed here. Interestingly, while fishing and forestry are very often an industrial activity undertaken by corporate actors, the relevant environmental legislation frequently punishes violations by legal persons less severely than natural persons, which means the most common and serious offenders are likely subjected to some of the lowest levels of punishment. For example, out of the 118 countries with environmental legislation criminalizing illegal fishing only 19 of these explicitly mention the liability of legal persons. Figure 5 indicates the number of Member States which have explicit penalties for legal persons; the remaining Member States may have provisions for legal persons in other legislation, but for this analysis are considered unknown.

Other sanctions

Legislation that includes confiscation provisions varies across countries and environmental areas. Overall, confiscation provisions do not appear common in legislation pertaining to the environment; for example, of the 193 Member States whose legislation was reviewed for this analysis only 37 appear to provide for confiscation regarding water-related offences, despite 135 criminalizing water pollution. Further, it appears from the legislative review that it is more common that confiscation provisions apply to equipment or objects (e.g., vehicles and wildlife products) related to the crime rather than profits or proceeds, particularly but not exclusively with respect to pollution crimes. For environmental areas such as noise pollution, equipment such as speakers and sirens may be subject to confiscation when the crime is not profit motivated. In some cases, what may be "specialized" confiscation provisions exist to address the involvement of high-risk substances, such as when officers may seize and take into possession hazardous chemicals.[45] While provisions for confiscation may not be widely included in environmental legislation they may still be included in general criminal or other legislation, thereby still providing confiscation options for law enforcement and the judiciary.

Whether offences are criminalized or not, civil remedies that require compensation, restoration, or restitution are a means of achieving justice in cases where the commission of an offence harms people, wildlife, or the environment. Although not common, examples do exist where legislation gives the justice system flexibility to implement solutions to recover the costs

Figure 5 **– Known Liability of Legal Persons***



of and restore the damage from environmental harms. For example, legislation in one Member State provides that an offender may be required to remove pollution, install pollution-control equipment, cease release of any harmful substance, and restore the environment to its previous condition. Overall, only 35 Member States require restoration for water pollution; a lower rate of restorative remedies than criminalization is common across all categories under analysis, though these provisions may exist in other legislative instruments. Compensation may be required to pay back costs for clean-up and/or to pay any victims suffering harm from damage to the environment. Such an approach appears relatively common in the context of soil pollution, where 24 Member States require offenders to compensate injured parties. While noise violations may cause harm that cannot necessarily be remedied, law enforcement may pursue other types of remedies, such as closure of facilities or installations, contract bans or restrictions, or the requirement to fund environmentally beneficial projects.

Alternatives to fines and imprisonment are not as common as financial and custodial sentences. As evident below, the range and diversity of these most common sanctions are extensive for each of the environmental areas that were reviewed for this analysis.

* The liability of legal persons for wildlife crime was taken from the Member State responses to the Information Gathering Tool from CCPCJ Resolution 31/1 as well as content analysis of Member States' legislation.

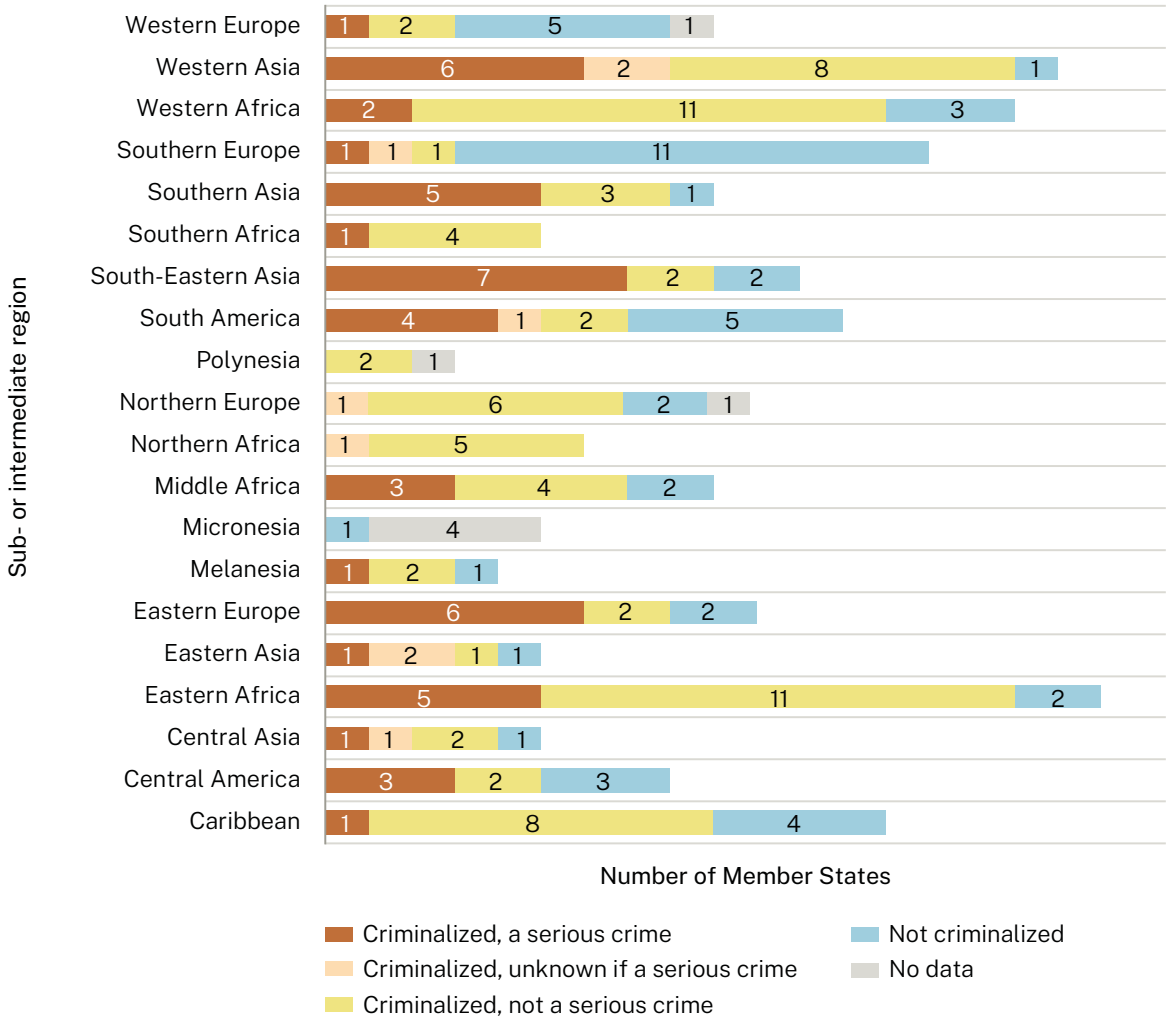
Deforestation and logging

The content analysis of deforestation and logging legislation focused on the working definition in Box 1 (illegal forest clearing through illegal cutting, burning, and destruction etc.) and not on the illegal trade of timber. The legislation of 139 Member States was identified as criminalizing these activities, with 49 of those having penalties that met the UNTOC definition of a serious crime. The custodial penalties have a great deal of variability with some prescribing incarceration from 15 to 30 days while others prescribe up to 14 years depending on the type and severity of the offence. Likewise, criminal fines ranged significantly. At the low end, fines are less than USD 500; at the high end, fines could be tens of thousands of USD.

Often fines are calculated by penalty units determined by the national minimum wage and, for this crime, occasionally per tree.

Confiscation of equipment, forest products, money and other items was included in environmental legislation and was only evident in 19 Member States. Restoration or restitution was more prevalent here perhaps than in other environmental areas (24 Member States). Sanctions also included loss of licence and prohibition from logging for set periods of time. The lack of criminalization of legal persons (in 20 Member States) warrants further scrutiny since forestry is a highly industrialized sector where corporations may be the main perpetrators.

Figure 6 **– State of criminalization of deforestation and logging-related offences**

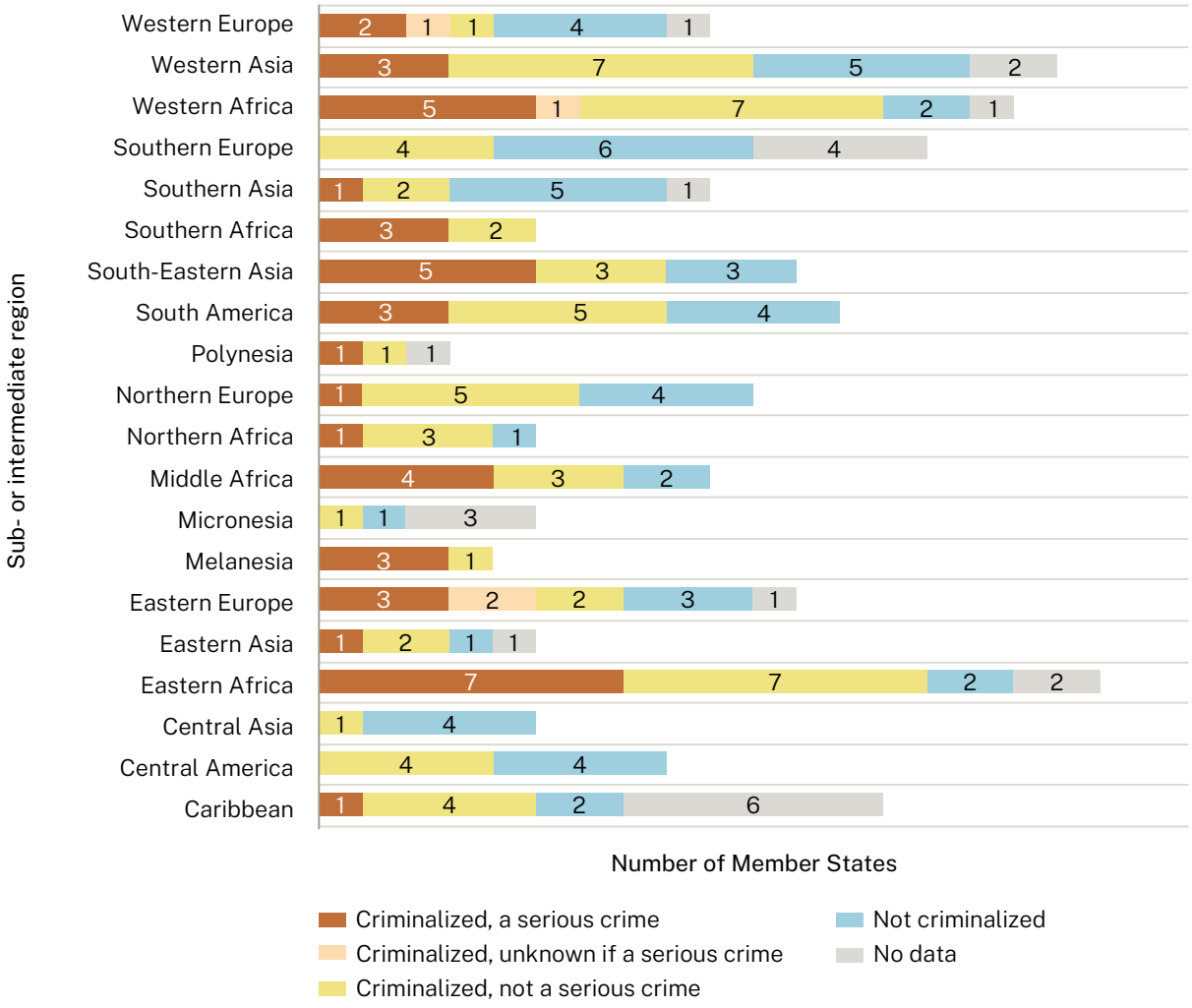


Mining

Violations of mining-related legislation constitute a criminal offence in the environmental legislation of 116 Member States reviewed for this analysis, with custodial sentences ranging in length from 15 days to 20 years. A relatively high proportion of the custodial penalties meet the UNTOC threshold of a serious crime (45 Member States).

In addition to custodial sentences, Member States have established a wide range of monetary fines in relation to illegal mining. A few Member States differentiate between natural and legal persons in the provision of monetary fines, like in other environmental areas. More prominently than in the context of other environmental areas, monetary fines for illegal mining can double, triple, or even quintuple with repeated offences. One Member State calculates the amount of fine based upon the assets of the offender.

Figure 7 **– State of criminalization of mining-related offences**



Pollution

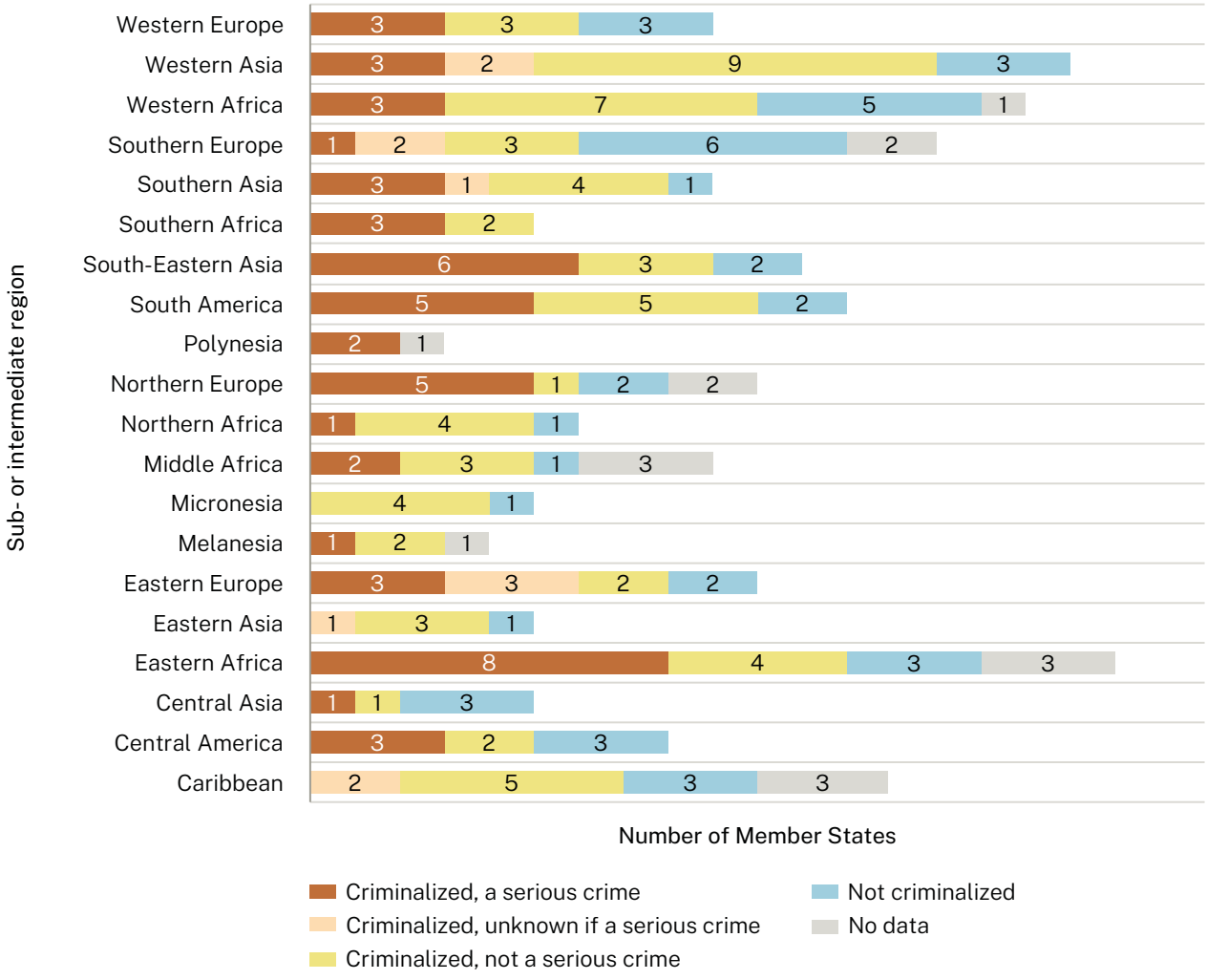
Air pollution

The review of air pollution legislation for this analysis reveals a trend toward criminalization of air pollution offences but a lag in relevant criminal sanctions constituting "serious crimes" as defined by UNTOC. Of the 193 Member States reviewed for this report, 135 criminalize air pollution offences. Forty per cent of these do so in a way that meets the "serious crime" threshold.

The range of penalties among the nearly 70 per cent of Member States that criminalize air pollution is vast, from monetary fines to extensive custodial sentences, including labour or correctional work as a type of custodial penalty. The custodial sentences vary greatly, from a day's imprisonment at the very low end, to life imprisonment at the other extreme. Member States vary significantly with respect to the degree of flexibility concerning custodial sentences that can be given for mitigating and aggravating circumstances during sentencing.

Just over two-thirds (127 Member States) of the air pollution legislation provides monetary fines for violations (some in addition to custodial sentences), but both the means of calculating monetary sanctions and the amount of the fines differ dramatically by country. For example, some Member States penalize ongoing violations with fines that are incurred at daily rates. One Memtion to a base fine of up to USD 2,365. Another Member State levies up to about USD 729,735 per day for ongoing violations.

Figure 8 **– State of criminalization of air pollution-related offences**



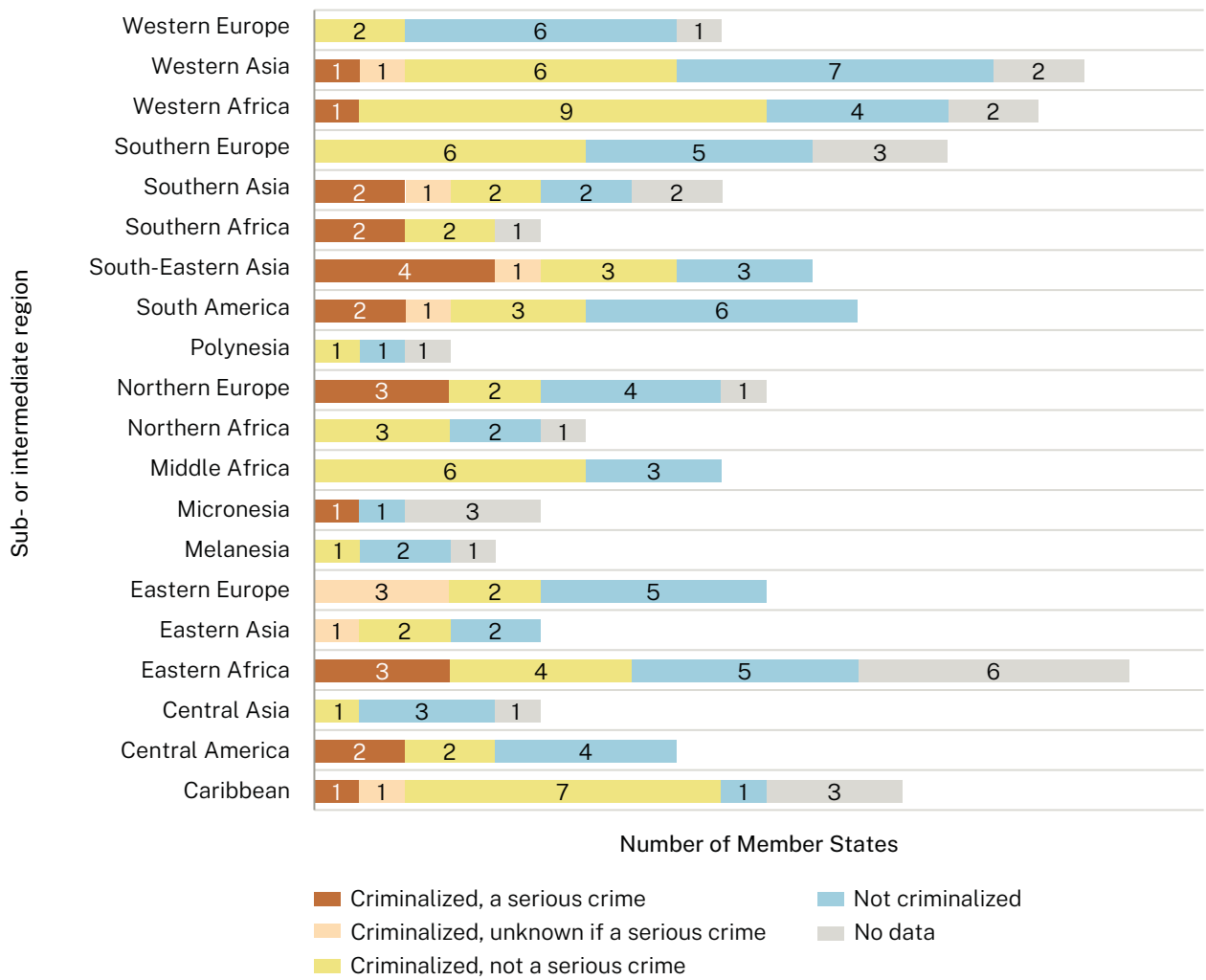
Legislation may also distinguish between natural and legal persons to identify appropriate fines. For example, legislation may assign lower fines for individual violators as opposed to violations involving corporations. For example, one Member State imposes a penalty five times greater in cases involving legal persons than in cases involving natural persons. Several nations target legal entities by imposing monetary fines on corporations while either leaving the individual unpunished or imposing custodial and/or administrative penalties on individuals involved in the violation.

Noise pollution

Of the 193 Member States reviewed for this analysis, 97 Member States criminalize noise pollution violations. Of those, just 22 have penalties that meet the UNTOC serious crime threshold, the lowest number of the analysis. Generally, prison sentences for noise pollution offences are less common than in other environmental areas. Sixty-eight Member States incorporate custodial penalties into their legal frameworks. The highest custodial penalties range from 6 to 15 years. The highest penalties appear to arise when noise or vibration is considered a nuisance or pollutant, as opposed to situations in which regulation and violations derive from noise-specific legislation. For example, one Member State's legislation provides that noise pollution may be a serious crime that affects the environment when committed either intentionally or negligently. The lower-end of custodial sentences is two to ten days, across all legislation, and these provisions tend to be found in noise-specific legislation.

As with regulating other forms of acts that harm the environment, daily fines are a relatively prominent

Figure 9 **– State of criminalization for noise pollution**

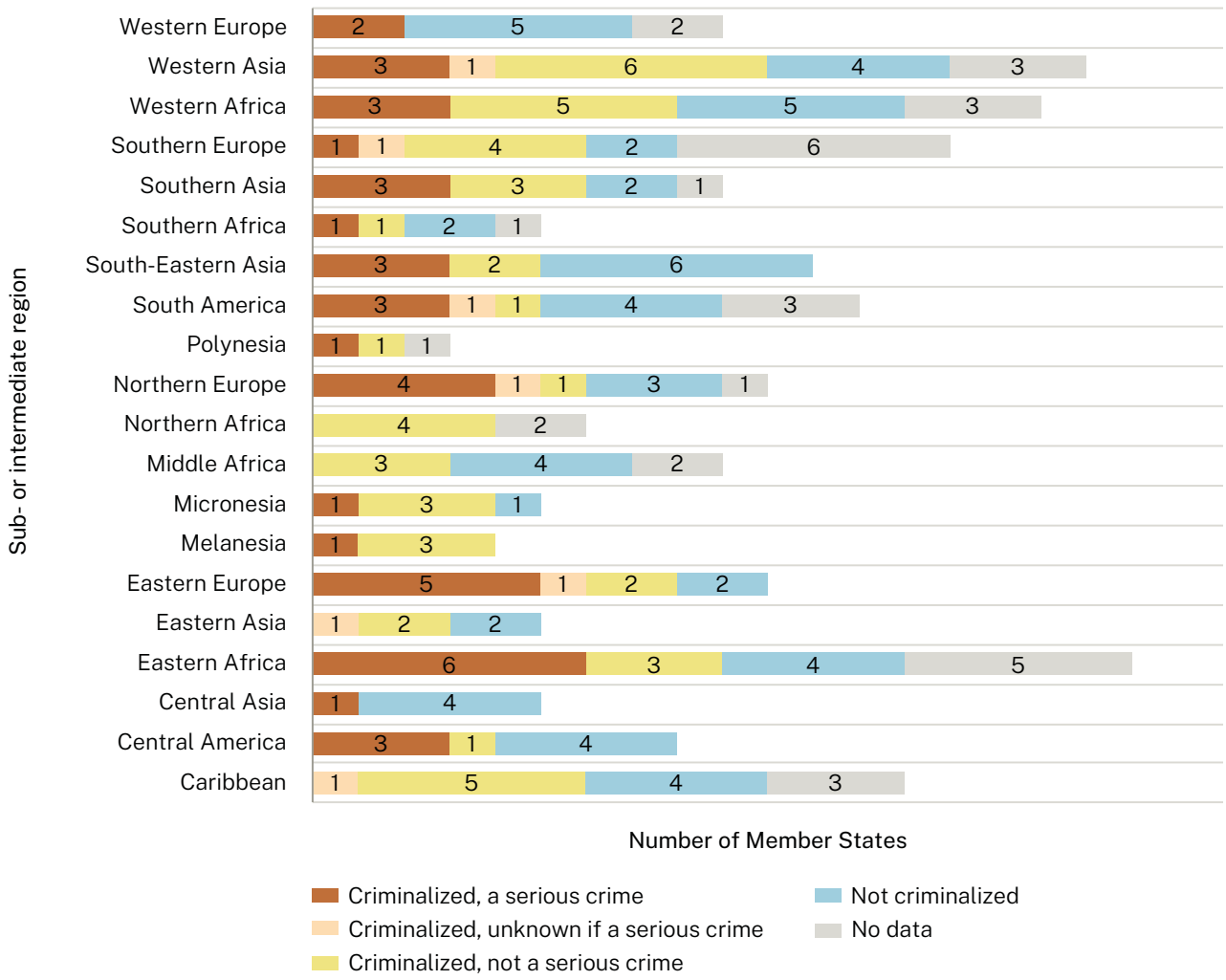


form of penalizing noise violations, and these range greatly. As far as the difference between natural and legal persons, several Member States impose higher fines on corporations than individuals, with at least a few Member States imposing penalties up to ten times higher on legal persons. A few countries also impose graduated penalties, levying fines proportionate to the severity of the violation.

Soil pollution

Of the 193 Member States' legislation reviewed, 99 criminalize soil pollution offences, with 41 of those having penalties that meet UNTOC's serious crime threshold. Custodial sentences for soil pollution violations range from 6 days to up to 15 years across all legislation. In 48 Member States, legal persons are held liable within the environmental legislation analysed. Accountability measures for natural persons include an array of custodial sentences, monetary fines, as well as compensation, rehabilitation, and restoration. Like in other contexts, some legislation scales the length and severity of custodial sentences differently for natural and legal persons, for example with a 1-10-year penalty range for natural persons and a 5-10-year penalty range for legal persons. In this review, 76 Member States were identified as imposing a monetary fine on soil-related offences, six of which provided for greater fines for legal persons.

Figure 10 **– State of criminalization for soil pollution**

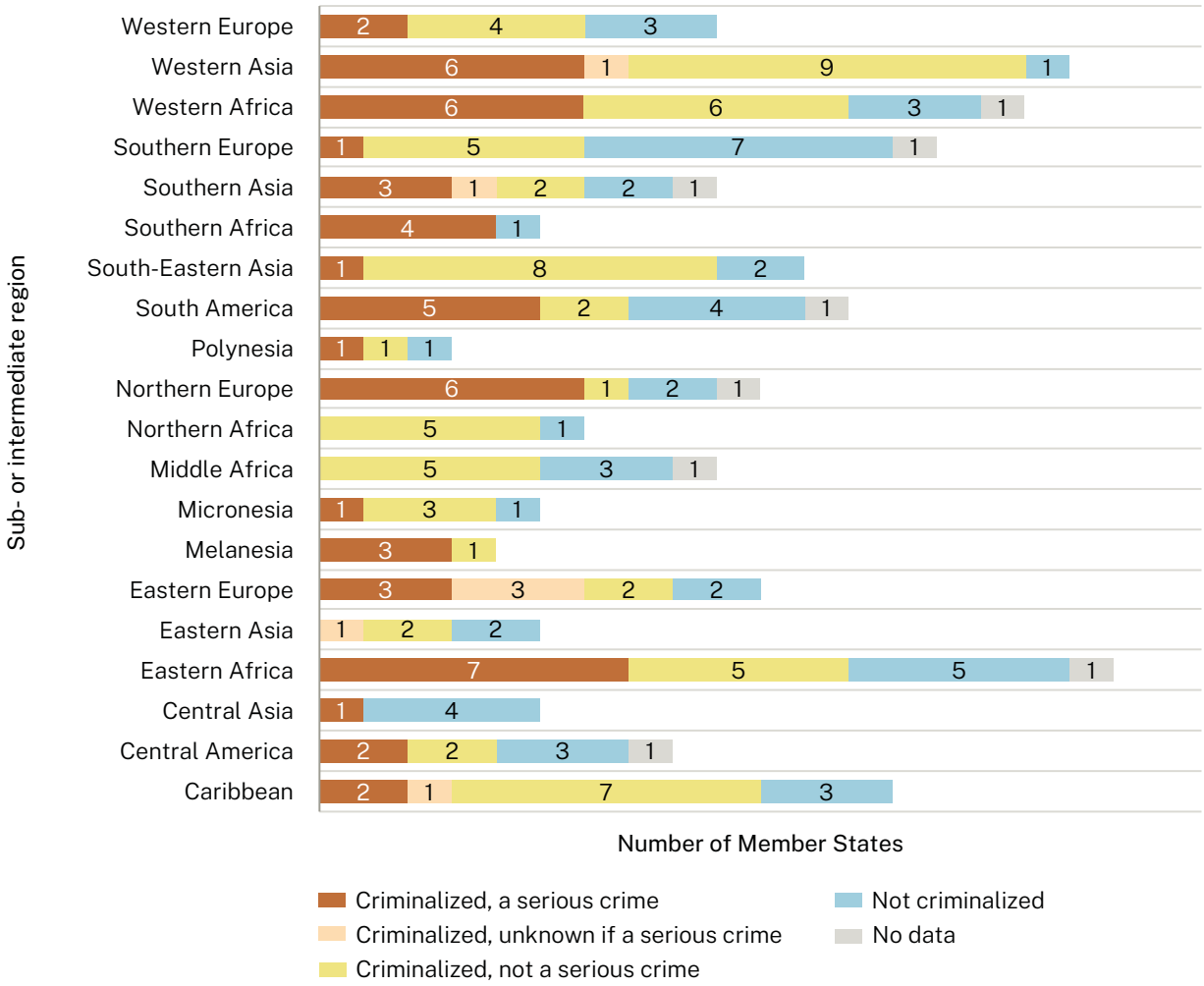


Water pollution

At least 135 of 193 Member States criminalize water pollution, with 117 providing for a custodial sentencing option. Of those that provide for custodial sentences, 55 meet UNTOC's serious crime threshold. Custodial penalties range from three days to up to 20 years. Across all of the types of legislation reviewed, a significant range exists as to how Member States structure penalties. In some cases, only a single custodial sentence option exists, such as 5-years' imprisonment, rather than a range. At least one Member State imposes a higher custodial sentence range specifically for corporate entity leaders.

Monetary penalties are common for water pollution offences; at least 128 of the 135 Member States provide for the imposition of fines, which can include specifications as to how the fines might be used, such as for compensation or rehabilitation. In other cases, payment for compensation or rehabilitation may be a separate enforcement option. For example, 56 Member States require water polluters to compensate injured parties and/or restore the environment, including reimbursing the State, for damage caused and the costs of rehabilitation. The severity of monetary fines ranges greatly, and like in other contexts, some countries increase fines for ongoing or longstanding violations. Other ranges may be based on the environmental risk: one Member State's monetary fines differentiate between water pollution that poses a specific threat to human health and that which poses a threat to an ecosystem.

Figure 11 **– State of criminalization for water pollution**

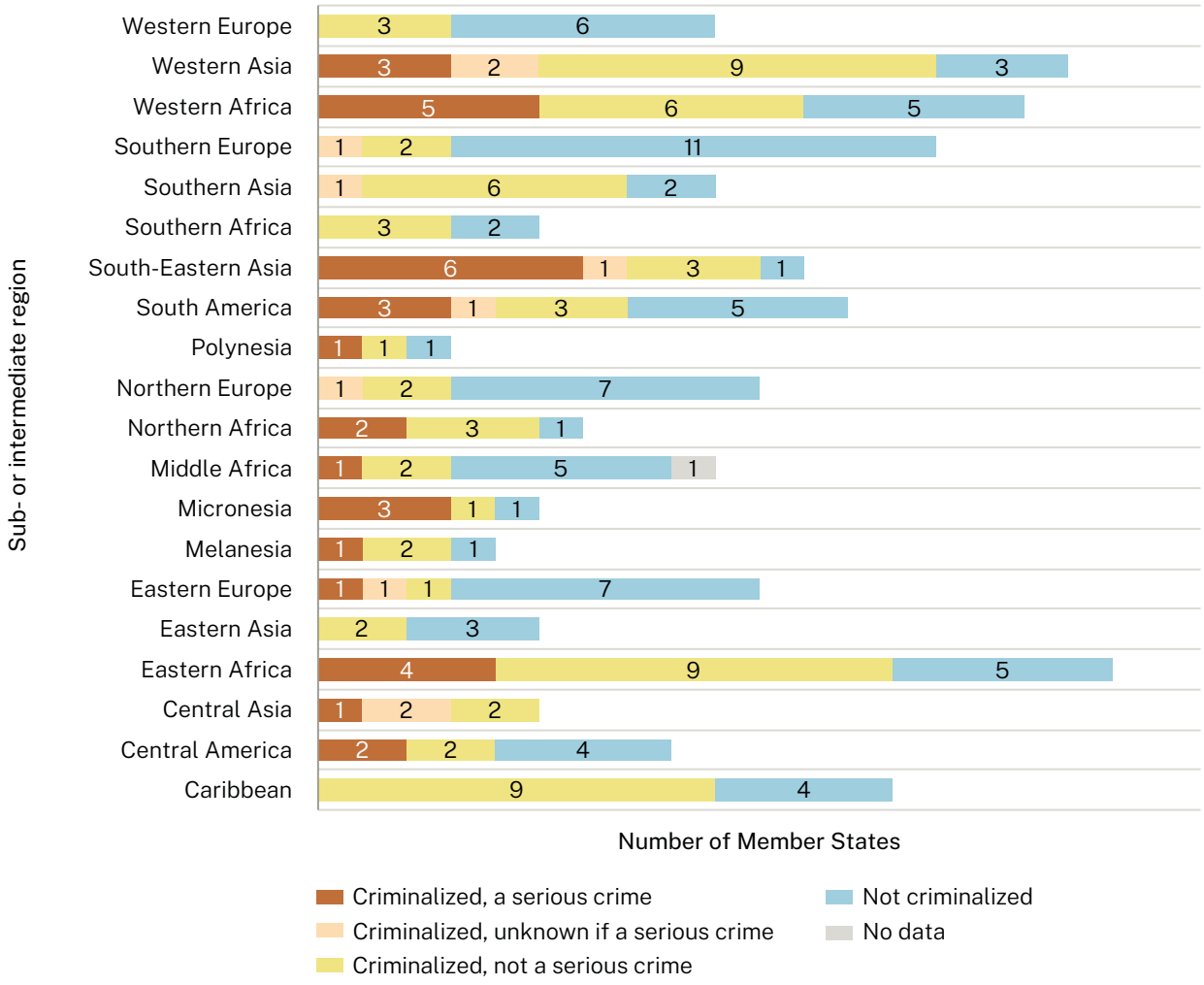


Fishing-related offences

Violations of fisheries laws are criminalized in 118 of 193 Member States. Fines for illegal fishing vary widely. Such fines are often calculated based on the national minimum wage or daily units (a set daily rate) and these vary from two minimum wages to 1,000 daily units. In 108 Member States, there are custodial sentences ranging from one to seven days all the way up to 12 to 20 years. Criminalization in most Member States, however, tends not to meet the UNTOC threshold for serious crime, with only 34 Member States appearing to have set custodial penalties for four years or above.

Very little data are available regarding legal persons in relation to illegal fishing. Only 19 Member States in this analysis clearly delineated criminal penalties for legal persons; for the remaining 174 countries, this is unknown. Some Member States clearly included provisions for forfeiture or confiscation of equipment and vessels in their penalties (32 Member States). Very few Member States included restorative or reparative penalties among their possible sanctions (7 Member States) as well as revocation of permits or licence to fish (4 Member States).

Figure 12 **– State of criminalization for fishing-related offences**

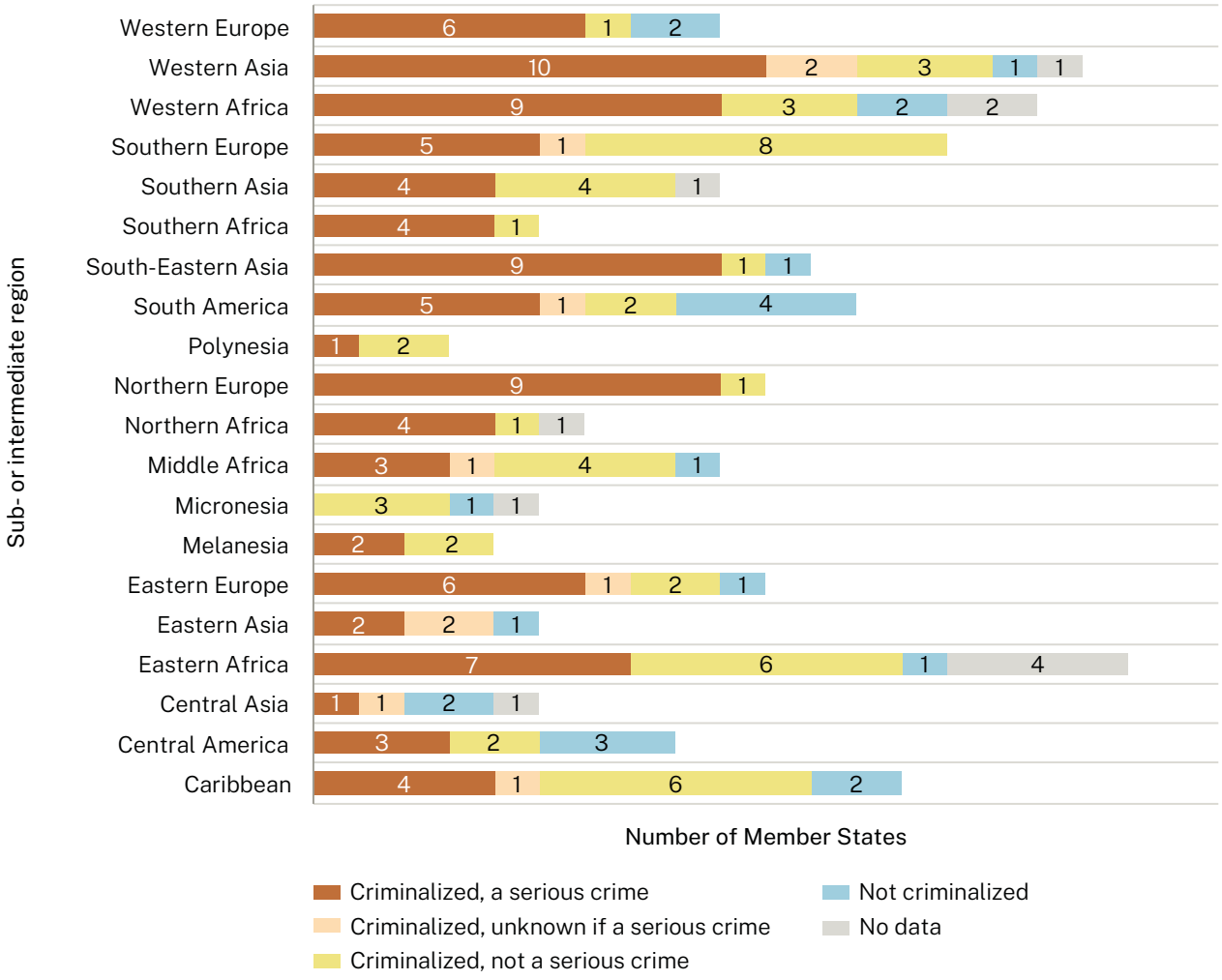


Waste-related offences

Of the 193 Member States' legislation reviewed for this analysis, 160 criminalize waste-related offences, and 95 of those have penalties that meet the UNTOC serious crime threshold. In some cases, the "seriousness" of the crime is directly related to the nature of the offence and the risk of greater environmental harm. For example, at least one Member State provides for two days imprisonment for treating and incinerating solid waste at unauthorized sites but up to life imprisonment for the importation of hazardous waste. In at least one country, as another example, transporting, importing, storing, or dumping toxic waste is punishable with a life sentence.

In some cases, the legislation allows for fines that vary depending on the potential for harm or risk. For instance, several Member States fine hazardous waste violations more stringently than violations involving "general" waste. Other legislation links the quantity of waste generated to the amount of the fine where offences involving higher quantities of hazardous waste equate to higher fines. Some Member States double the fines for recidivism.

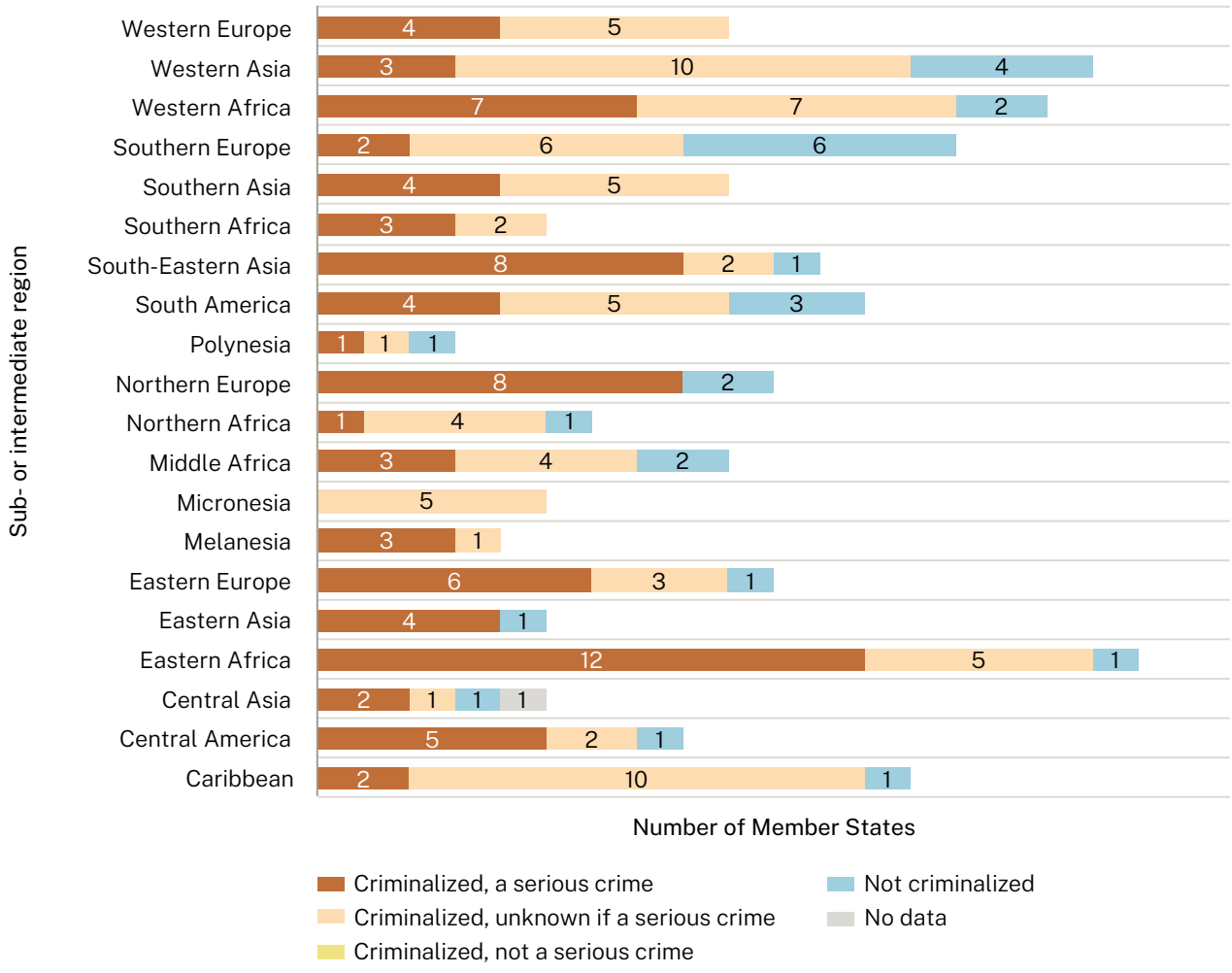
Figure 13 **– State of criminalization of waste-related offences**



Wildlife-related offences

Violations of wildlife legislation have the highest rate of criminalization, with 164 Member States having such provisions, across all environmental areas. CITES is the international convention that regulates transboundary trade in endangered species listed in the convention. But many countries have laws that go beyond the internationally regulated species and protect nationally controlled species. There may be some overlap in legislation for wildlife violations and illegal deforestation and logging as some timber species are protected species. However, commercial forestry is often regulated by a specific set of laws separate from hunting and fishing regulations. This analysis goes beyond looking at violations of CITES and includes these domestic crimes against wildlife. The reason for the high level of criminalization in this area is not clear, since CITES does not require criminalization, but perhaps may be linked to more focused campaigns in the last ten or more years to protect wildlife from illegal harvesting or taking and trafficking. In addition, CITES (1975) and the Convention on Migratory Species (CMS) (1983) could be considered among the first major multilateral environmental agreements and, as such, have had more time to impact legislation including criminalization. Furthermore, CITES has a National Legislation Project dedicated to monitoring the implementation of the convention; if parties fail to meet the minimum requirements for implementation of CITES, they can be penalized via trade suspensions. CMS has had dedicated campaigns to highlight wildlife crime

Figure 14 **– State of criminalization of wildlife-related offences**



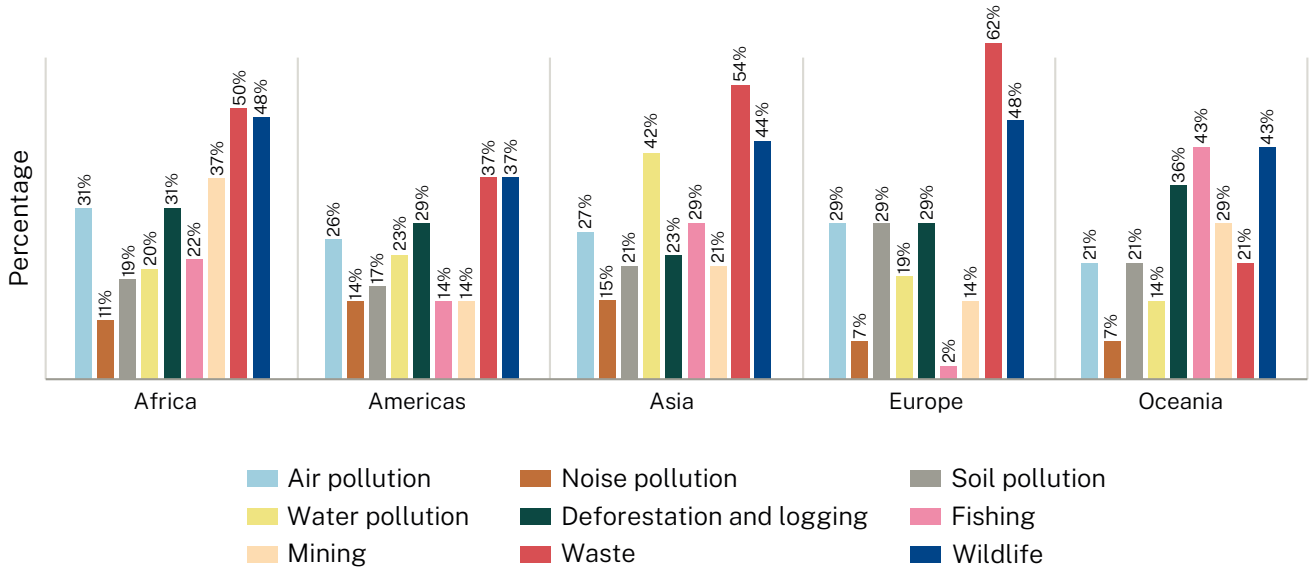
more broadly.[46] However, as mentioned, these do not require criminalization, so this may or may not be relevant. It is also worth noting that wildlife is a less industrialized sector, so perhaps there has been less lobbying to counter any national policy changes.

Wildlife crime also has a wide range of criminal penalties. These range from a few days to life in prison. Fewer than half of Member States have criminal sanctions that meet the UNTOC threshold of a serious crime (86 Member States), but this is second highest level of the nine environmental areas. Criminal fines also vary widely from a few USD to three million USD. Many Member States calculate fines in daily units (a daily set fee) or national minimum daily wages as well as calculating the fine based upon the value of the species. Seventy-three Member States have provisions to confiscate the wildlife, equipment, and/or vehicles. In terms of alternative penalties, restoration of the environment is apparent in 31 pieces of legislation. For wildlife crimes, prohibition of keeping wildlife for a number of years after a conviction is also a possible punishment in many Member States. Sixty-nine Member States also have legislation that holds legal persons liable either administratively, civilly, or criminally or some combination of these.

Geographic Variations in Criminalization of Crimes that Affect the Environment

Overall, it appears that there is a geographic diversity in the propensity of Member States to criminalize acts that harm the environment. Figure 15 indicates the percentage of Member States in the different regions that have known penalties that meet the UNTOC threshold of serious crime for the nine environmental areas. Asia has the highest percentage of Member States that have serious crime penalties for illegal deforestation (42%) and noise pollution (15%) as well as a high percentage for waste crime (54%). Africa has the highest percentage of Member States for illegal mining (37%) and air pollution (31%). It also has a high percentage for waste crime (50%), which is perhaps explained by the widespread ratification of the Bamako Convention in the region. Oceania has the highest percentage of Member States which have UNTOC-level penalties for water pollution (36%); this might also make sense given the natural significance of water resources in the region. Oceania also has the highest level of serious crime penalties for illegal fishing (43%). Europe has the highest percentage of Member States with serious crime penalties for waste crime (62%) and soil pollution (29%); these offences can overlap and be related. For wildlife crime, over one-third of all Member States when analysed regionally have criminal penalties that meet the UNTOC serious crime threshold, including 48% of Member States in both Africa and Europe.

Figure 15 **– Percentage of Member States Meeting the UNTOC Threshold of a Serious Crime for CAE**



Africa

In the five subregions in Africa, a majority of the Member States criminalize activities in relation to nearly all nine categories explored in this analysis. Criminalization for Figures 16 through 20 covers criminalization that meets the UNTOC serious crime definition as well as criminalization that does not meet the UNTOC serious crime definition or where the penalty is unknown. Southern Africa has the highest levels of criminalization apart from soil pollution, although that may be covered by criminalization of waste offences.

Americas

The Americas are combined into three subregions and also have high levels of criminalization. In this region, soil pollution is the only offence not criminalized by a majority of Member States, which again may instead be covered by criminalization of waste offences.

Asia

Central Asia has some of the lowest levels of criminalization apart from illegal deforestation, illegal fishing, and wildlife violations. Illegal fishing in Eastern Asia, soil pollution in South-eastern Asia, and illegal mining in Southern Asia are the only other instances where a majority of Member States do not criminalize violations.

Europe

Levels of criminalization in the subregions of Europe are low for noise pollution and illegal mining. In addition, illegal fishing is not criminalized in a majority of European Member States. Southern Europe has some of the lowest levels of criminalization globally.

Oceania

The subregions of Oceania (here combined into three subregions) also have a high percentage of Member States which have criminalized violations of environmental legislation. The exceptions are noise pollution in Melanesia, Micronesia, and Australia and New Zealand and Polynesia, as well as illegal deforestation and illegal mining in Micronesia. It is worth noting that the forestry and mining industries might be limited in Micronesia so may not need to be the target of criminalization.

Figure 16 **– State of criminalization in sub- or intermediate regions of Africa**

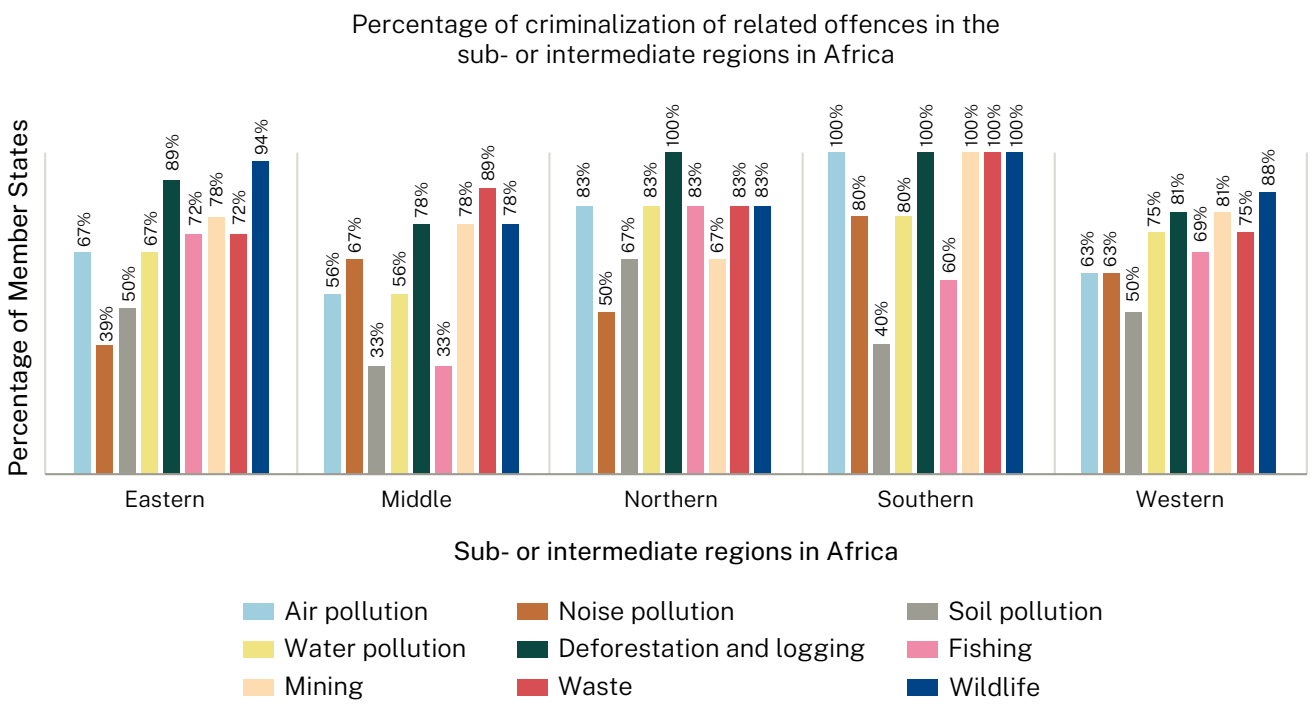


Figure 17 **– State of criminalization in sub- or intermediate regions of the Americas**

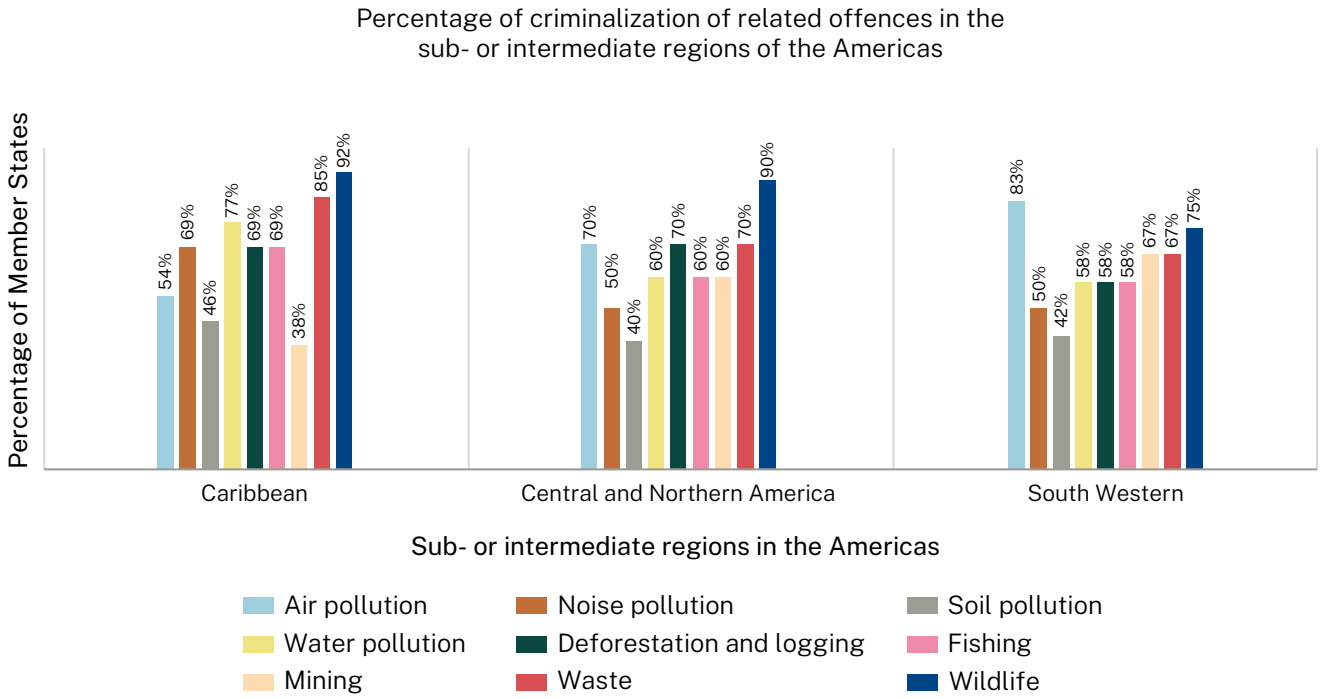


Figure 18 **– State of criminalization in subregions of Asia**

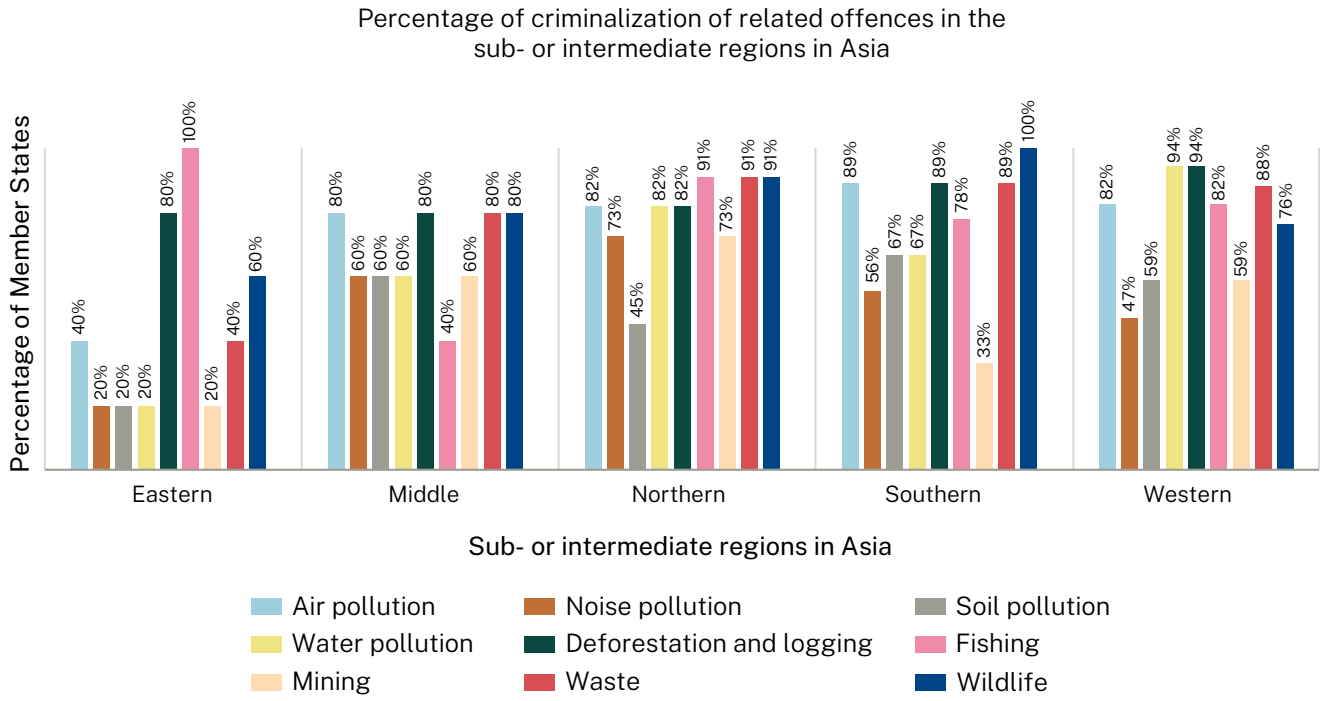


Figure 19 **– State of criminalization in the subregions of Europe**

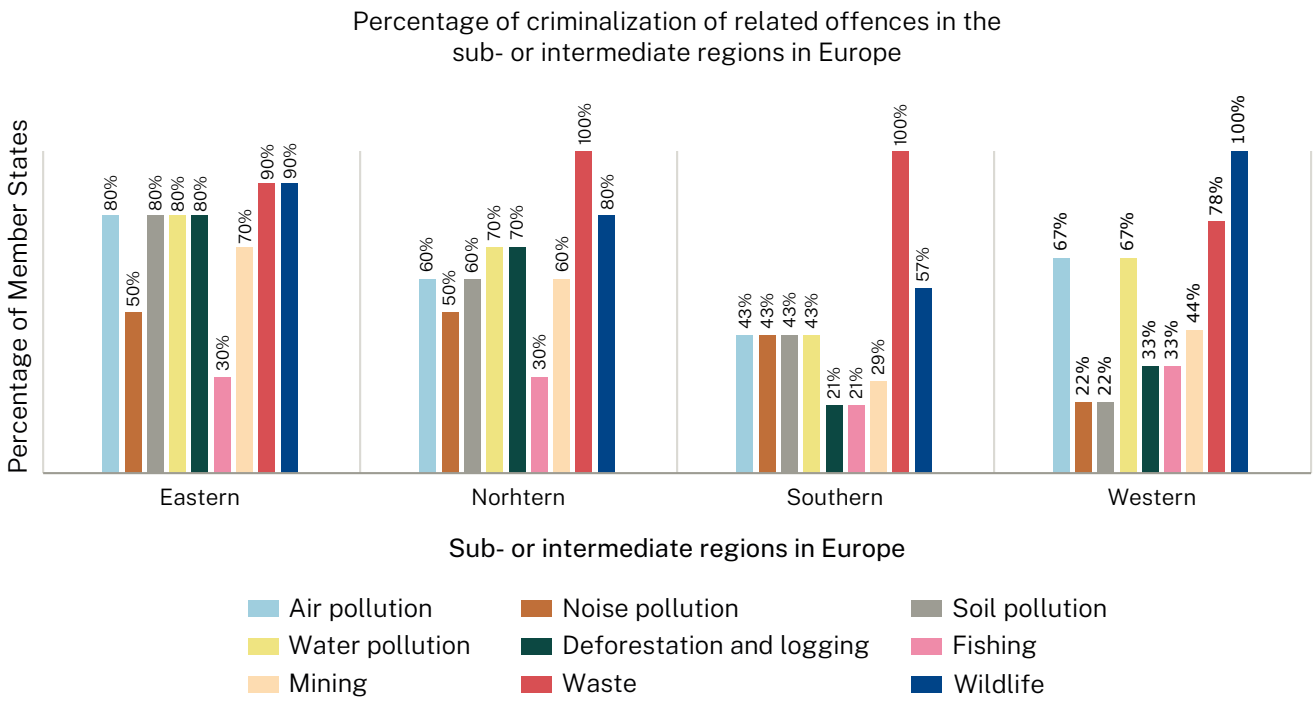
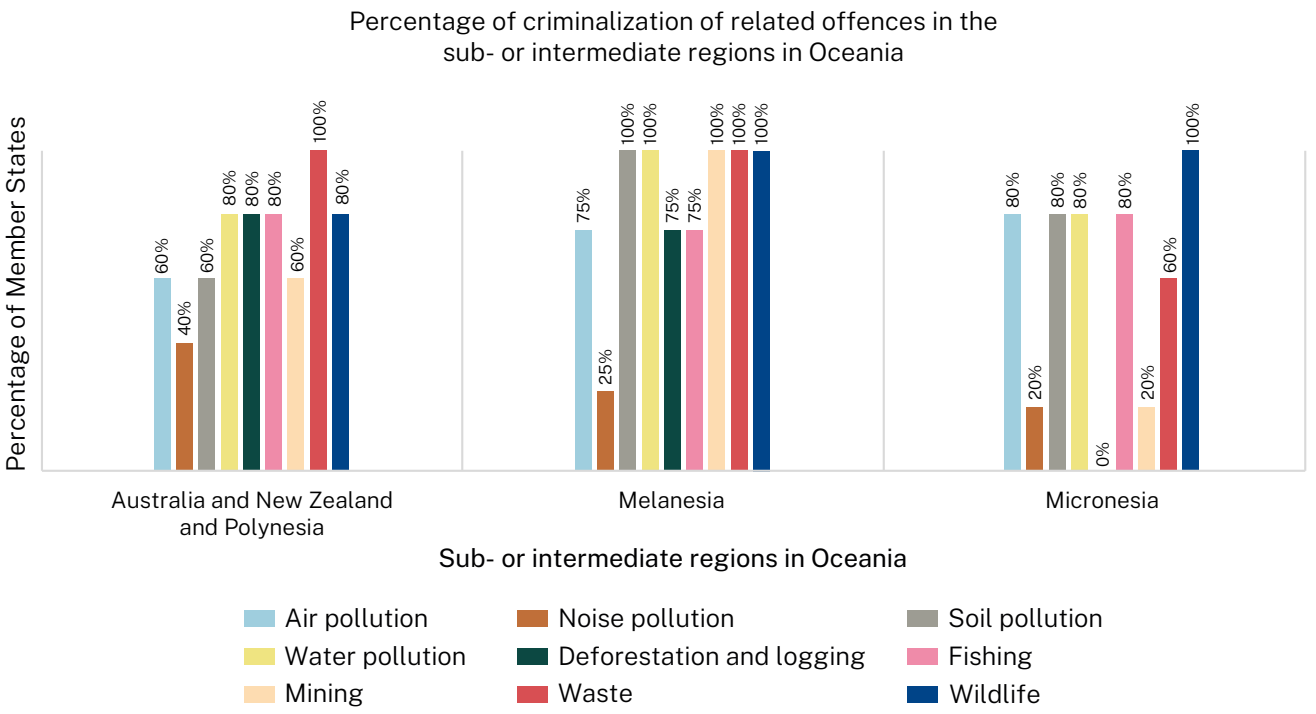


Figure 20 **– State of criminalization in the subregions of Oceania**



Conclusions and policy implications

As this review of legislation has shown, there is a certain level of criminalization to protect the environment, with more than half of all Member States analysed criminalizing criminalizing violations of all nine environmental areas. Yet, there is still scope for environmental legislation to continue to be improved in terms of more Member States drafting and implementing legislation to protect the environment and more Member States considering having penalties that meet the threshold of a serious crime for the purposes of UNTOC. Nevertheless, today, in most countries in the world, violations of environmental legislation can result in a prison sentence. Violations of waste offences and wildlife offences have the highest levels of criminalization, perhaps due to the existence of international conventions relevant to these areas. Waste crime is also an area where the liability of legal persons (such as corporations) is recognized in over three-quarters of countries. In contrast, only 19 countries have known liability for legal persons regarding illegal fishing and 20 for illegal logging, two crimes in which corporate malfeasance is common, indicating economic interests may be blocking efforts to better protect the environment.

There are differences in the level of criminalization and the possible penalties across the nine environmental areas and across regions. Illegal fishing is considered most grave in Oceania whereas only 2% of countries in Europe treat it as a serious crime. All the countries of Southern Africa regard air pollution, illegal logging, illegal mining, waste offences and wildlife offences as criminal acts. In contrast, no country among the small island states of Micronesia regard illegal logging as a crime, likely since there is not an extensive forestry industry. The highest average percentage of Member States with penalties meeting the serious crime definition are in Africa and Asia, indicating not that the legislation there may be 'weak', as is commonly stated, but that there is a lack of enforcement of the legislation. Central Asia may be an exception, where pollution offences (noise, soil, water) and illegal mining are not criminalized by 80% of the Member States, despite the fact that these crimes impact those countries. Further examination of penalties within (sub) regions is warranted to identify potential loopholes where countries with the least stringent penalties may be targeted.

Despite the level of criminalization, there is a lack of data on arrests, convictions, sanctions etc.[47] This indicates there is a need for capacity-building within Member States both on data collection for Crimes that Affect the Environment as well as on implementation and enforcement of existing legislation. In terms of improving legislation, very few countries have environmental laws allowing for confiscation of the instrumentalities or the proceeds of environmental offences. These deficiencies may lead to the prosecution of minor offenders, rather than the large economic interests that often drive crimes that affect the environment. Furthermore, even more improvements could be made in the implementation of the Basel Convention and CITES with regards to criminalization as conventions seem connected to the levels of criminalization. For the Basel Convention, this is particularly the case in Latin America and for CITES this is the case for Southern Europe and Western Asia.

This analysis provides a foundation for further research to continue to improve the legislative protection of the environment. Further studies as to the full scope of criminalization of specific Crimes that Affect the Environment are needed. For instance, it would be

worth exploring the extent to which air pollution legislation currently criminalizes all or only some harmful types and levels of air pollution. Further research is also needed into the enforcement of this legislation and whether the range of criminal penalties are administered for both natural and legal persons, and importantly, what the effects are of these sanctions. It is critical to understand which combination of penalties, including restorative penalties, are the most effective at preventing and deterring these crimes. Specifically, this further research should unpack the aspects of the offences to which the UNTOC serious crime definition applies, whether penalties meeting this definition are imposed by criminal justice systems, and whether UNTOC provisions such as mutual legal assistance are utilized. Furthermore, additional legislation should continue to be added to this review (such as more criminal and penal codes and legislation related to corruption, confiscations and sentencing) to ensure a comprehensive understanding of the state of criminalization.

Protecting the environment through criminal law and/or criminal sanctions is just one part of the response to the triple planetary crisis. A better understanding of the state of criminalization can be combined with the other ongoing efforts to combat Crimes that Affect the Environment.

Regional groupings

Africa

Eastern Africa – Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, South Sudan, Uganda, United Republic of Tanzania, Zambia, Zimbabwe

Middle Africa – Angola, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Republic of the Congo, Sao Tome and Principe

Northern Africa – Algeria, Egypt, Libya, Morocco, Sudan, Tunisia

Southern Africa – Botswana, Eswatini, Lesotho, Namibia, South Africa

Western Africa – Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, Gambia (Republic of The), Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo

Americas

Caribbean – Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent the Grenadines, Trinidad and Tobago

Central America – Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama

Northern America – Canada, United States of America

South America – Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela (Bolivarian Republic of)

Asia

Central Asia – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Eastern Asia – China, Democratic People's Republic of Korea, Japan, Mongolia, Republic of Korea

South-eastern Asia – Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam

Southern Asia – Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka

Western Asia – Armenia, Azerbaijan, Bahrain, Cyprus, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Türkiye, United Arab Emirates, Yemen

Europe

Eastern Europe – Belarus, Bulgaria, Czechia, Hungary, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Ukraine

Northern Europe – Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, the United Kingdom of Great Britain and Northern Ireland

Southern Europe – Albania, Andorra, Bosnia and Herzegovina, Croatia, Greece, Italy, Malta, Montenegro, North Macedonia, Portugal, San Marino, Serbia, Slovenia, Spain

Western Europe – Austria, Belgium, France, Germany, Liechtenstein, Luxembourg, Monaco, Netherlands (Kingdom of the), Switzerland

Oceania
Australia and New Zealand – Australia, New Zealand

Melanesia – Fiji, Papua New Guinea, Solomon Islands, Vanuatu

Micronesia – Kirbati, Micronesia (Federated States of), Marshall Islands, Nauru, Palau

Polynesia – Samoa, Tonga, Tuvalu

Endnotes

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