United Nations
Office on Drugs and Crime

COMBATING POLLUTION CRIME

A GUIDE TO GOOD LEGISLATIVE PRACTICES

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INTRODUCTION

Pollution crime represents a significant and growing threat to the environment, human health and sustainable development. In recent years, attention has increasingly been given to the need to prevent and combat crimes that affect the environment in order to address the triple planetary crisis of climate change, biodiversity loss and pollution, as well as to make the most effective use of national, regional and global tools and instruments to that end.

It is in this context that the United Nations Office on Drugs and Crime (UNODC) has produced the present legislative guide on combating pollution crime, which is intended to provide national legislators with an overview of key issues to consider when developing and amending relevant national legislation.

This introduction presents the context for the guide, namely addressing crimes that affect the environment; the key issues of what "pollution" and "pollution crime" refer to; the purpose, scope and target audience of the guide; some guidance on how readers can use the guide; and, finally, an overview of the guide and its contents.

ADDRESSING CRIMES THAT AFFECT THE ENVIRONMENT

Many forms of crime that affect the environment are serious, transnational and organized in nature, with far-reaching impacts for the rule of law, governance, national security and human health. Such crimes can cause significant adverse impacts, including habitat loss, environmental damage, pollution and climate change.[1] They deprive communities of essential resources and jeopardize livelihoods.[2] In communities where women are responsible for securing natural resources, including water and food, to support their families, the degradation of those resources as a result of crimes that affect the environment can have a disproportionate impact upon women.[3] The harms that can be caused by such crimes include not only underdevelopment but also armed violence,[4] ultimately undermining the efforts made towards achieving the 2030 Agenda for Sustainable Development.[5] Such harms extend beyond national borders and persist for generations.

The international community has recognized the worrying scale and scope of crimes that affect the environment and the need for global action to prevent and address such crimes. The international forums that have adopted dedicated resolutions on the topic include the General Assembly, the United Nations Congress on

[1] UNODC and World Wide Fund for Nature, "Crimes that affect the environment and climate change" (Vienna, 2022).

[2] International Criminal Police Organization (INTERPOL), "Organized crime groups pushing environmental security to tipping point", 2 December 2023.

[3] See General Assembly resolution 76/300.

[4] Richard Matthew, Oli Brown and David Jensen, *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment* (Nairobi, United Nations Environment Programme (UNEP), 2009); United Nations Interagency Framework Team for Preventive Action, *Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict: Land and Conflict* (Nairobi, 2012).

[5] INTERPOL and UNEP, *Strategic Report: Environment, Peace and Security – A Convergence of Threats* (Nairobi, 2016), p. 53.

Crime Prevention and Criminal Justice, the Economic and Social Council and its Commission on Crime Prevention and Criminal Justice, and treaty-based intergovernmental bodies, such as the Conference of the Parties to the United Nations Convention against Transnational Organized Crime and the Conference of the States Parties to the United Nations Convention against Corruption.

The General Assembly, for example, has expressed its alarm at existing research indicating that crimes that affect the environment have become some of the most lucrative transnational criminal activities and are often closely interlinked with different forms of crime and corruption and that money-laundering and the illicit financial flows derived from them may contribute to the financing of other transnational organized crimes and terrorism.[6]

Effectively addressing crimes that affect the environment requires the strengthening of legislation, international cooperation, capacity-building, criminal justice responses and law enforcement efforts aimed at, inter alia, dealing with organized crime, corruption and money-laundering linked to such crimes, and illicit financial flows derived from such crimes, while acknowledging the need to deprive criminals of proceeds of crime.[7]

The Conference of the Parties to the United Nations Convention against Transnational Organized Crime has, in several of its resolutions, called upon States to harness the potential of the Convention in addressing the complex and evolving challenges posed by transnational organized crime. In its resolution 10/6, the Conference of the Parties recognized the possible negative impact of crimes that affect the environment on economic development, public health, human safety, food security, livelihoods and habitats. It affirmed that the Convention constitutes an effective tool and an essential part of the legal framework for preventing and combating transnational organized crimes that affect the environment and for strengthening international cooperation in that regard. It urged States parties to implement the Convention, in accordance with fundamental principles of their domestic law, in order to effectively prevent, investigate, prosecute and punish crimes that affect the environment falling within the scope of the Convention, as well as related offences established under the Convention. It further called upon States parties to make such crimes, in appropriate cases, serious crimes, in accordance with their national legislation, as defined in article 2 (b) of the Convention, in order to ensure that, where the offence is transnational in nature and involves an organized criminal group, effective international cooperation can be afforded under the Convention. In addition, it requested UNODC, subject to the availability of extrabudgetary resources, and within its mandate, to provide technical assistance and capacity-building to States parties, upon request, for the purposes of supporting their efforts to effectively implement the Convention in preventing and combating transnational organized crimes that affect the environment.

The term "crimes that affect the environment" is often used to cover a broad range of illegal activities that cause harm to the natural world, as a whole or in a particular geographical area.[8] Although there is no formally agreed definition of the term, under the International Classification of Crime for Statistical Purposes, which was endorsed by the United Nations Statistical Commission and the Commission on Crime Prevention and Criminal Justice in 2015 as an international statistical standard for data collection, criminal acts against the natural environment are divided into four main areas:

(a) Acts that cause environmental pollution or degradation;

(b) Acts involving the movement or dumping of waste;

(c) Trade or possession of protected or prohibited species of fauna and flora;

(d) Acts that result in the depletion or degradation of natural resources.[9]

[6] See General Assembly resolution 76/185.

[7] Ibid., para. 1; and Kyoto Declaration on Advancing Crime Prevention, Criminal Justice and the Rule of Law: Towards the Achievement of the 2030 Agenda for Sustainable Development (General Assembly resolution 76/181, annex), para. 87.

[8] UNEP, *The State of Knowledge of Crimes that Have Serious Impacts on the Environment* (Nairobi, 2018), p. XVI.

[9] UNODC, *International Classification of Crime for Statistical Purposes (ICCS)*, version 1.0 (Vienna, 2015), pp. 30 and 31.

CLASSIFICATION OF CRIMINAL ACTS AGAINST THE NATURAL ENVIRONMENT

Acts that cause environmental pollution or degradation

Acts that cause environmental pollution or degradation, including acts that cause the pollution or degradation of air, water and soil, as well as any other acts that cause environmental pollution or degradation

Acts involving the movement or dumping of waste

Acts involving the movement or dumping of waste, within and across national borders

Trade or possession of protected or prohibited species of fauna and flora

Trade or possession of protected or prohibited species of wild fauna and flora, within and across national borders, including trade or possession of prohibited or controlled species of animals

Acts that result in the depletion or degradation of natural resources

Acts that result in the depletion of natural resources, including illegal logging; illegal hunting, illegal fishing or gathering of wild fauna and flora; illegal mining; and other acts that result in the depletion or degradation of natural resources

CONCEPTUALIZING POLLUTION AND POLLUTION CRIME

"Pollution" encompasses a broad spectrum of activities, involving a wide range of substances, that lead to the indirect or direct alteration of the biological, thermal, physical or radioactive properties of the environment.[10] Pollution occurs in various forms, including the discharge of waste, the release of harmful chemicals, the emission of greenhouse gases altering the planet's thermal balance, and the contamination of air with particulate matter, posing grave risks to human, animal and plant health.

The detrimental effects of pollution are not normally confined to localized areas and may transcend national and geographical boundaries, affecting distant regions and ecosystems. Long-distance, or transboundary, pollution occurs when pollutants disperse across vast distances, propelled by air or water currents. The impact of pollution can also be long-lasting and, in some cases, irreversible. Once released into the environment, certain pollutants, such as plastic waste or certain toxic chemical compounds, can take centuries to degrade fully, persisting in ecosystems and causing ongoing harm to wildlife, natural ecosystems and human habitats.[11] Some, such as per- and polyfluoroalkyl substances, may be volatile and persist in the environment forever. Clean-up efforts can be costly and may not fully restore the environment to its original state. Therefore, preventing pollution in the first place is of utmost importance locally, regionally and globally.

Pollution also manifests itself in the gradual and collective build-up of various polluting substances in the environment over time. Unlike acute or immediate pollution events, cumulative pollution results from continuous or repeated release of pollutants into the air, water or soil. Examples of cumulative pollutants include heavy metals, persistent organic pollutants, certain pesticides, and greenhouse gases. Over time, such substances can bioaccumulate in the food chain, leading to serious environmental degradation. Addressing cumulative pollution requires comprehensive and sustained efforts to foster sustainable environmental practices and solutions.

[10] Although natural sources of certain substances can contribute to pollution (e.g. volcanic eruptions, wildfires and the release of naturally occurring chemicals or substances from geological formations), human activities are often the primary drivers of pollution in many parts of the world.

[11] See Alice A. Horton and Isobelle Blissett, *Impacts of Plastic Pollution on Freshwater Aquatic, Terrestrial and Avian Migratory Species in the Asia and Pacific Region* (Nairobi, Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals, 2021); Maria Tsakona and others, *Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics* (Nairobi, UNEP, 2021).

Pollution has a significant impact on bodies of fresh water, primarily through the introduction of various nutrients, agrochemicals and pathogens from untreated sewage, as well as heavy metals from mining and industrial discharges. Freshwater pollution not only threatens aquatic ecosystems but also compromises access to clean and safe drinking water. A substantial portion of waste and pollutants, which encompasses plastic debris, nutrients, oil, heavy metals and radioactive waste, also flows from land-based origins into oceans and coastal waters, causing dangerous levels of marine pollution. Marine pollution also arises from the discharge or release of pollutants from ships, offshore drilling or the illegal dumping of waste into the marine environment or into rivers.[12] Marine pollution poses severe threats to marine life and, in addition to its ecological consequences, has dire social and economic impacts, in particular on coastal communities whose well-being is intimately tied to the health of the oceans.[13]

In the Kunming-Montreal Global Biodiversity Framework, adopted by the Conference of Parties to the Convention on Biological Diversity at its fifteenth meeting, in December 2022, Parties to the Convention committed to reducing pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including by reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; by reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and by preventing, reducing and working towards eliminating plastic pollution.[14]

"Pollution crime" is a multifaceted term encompassing a wide spectrum of offences that cause or are likely to cause environmental harm, specifically in relation to the quality of air, soil or water. Air pollution involves actions that release harmful substances into the atmosphere, leading to the deterioration of air quality. Examples include emissions from industrial facilities, the burning of hazardous materials and the operation of vehicles in violation of emissions standards. Such activities contribute to negative consequences that include smog, respiratory illnesses and climate change.[15] Land pollution occurs when toxic substances, such as heavy metals or hazardous chemicals, are released into the ground through dumping, spills, leakages or other modalities.[16] The problem frequently stems from inadequate agricultural or industrial practices, inefficient irrigation methods and improper waste disposal. Such activities can render land infertile, impair agricultural productivity, contaminate food crops, water and the marine environment, and destroy ecosystems.

Some pollution crimes, such as illegal dumping, toxic waste disposal or release and environmental contamination, are not simply isolated incidents committed by individuals or small groups. Rather, they are often orchestrated by highly sophisticated and well-organized criminal groups.[17] Those organized criminal groups may, but do not always, employ a range of illegal activities, including violence, fraud and corruption, as integral components of their modus operandi. Their activities are predicated on planned, coordinated and frequently repeated acts committed with the intent to profit, directly or indirectly, from environmental pollution or to avoid the costs associated with meeting the standards of environmental compliance and respecting laws.

There are various types of organized pollution crime. Organized criminal groups[18] may illegally dispose of or release hazardous or other waste materials, such as chemicals and toxic substances, in various types of location, such as fields, forests, warehouses, construction sites, rivers, lakes and seas, including in areas beyond national jurisdiction. They do so to avoid disposal costs or to smuggle banned or hazardous substances across

[12] According to UNEP, land pollution is responsible for 80 per cent of marine pollution. (www.unep.org/topics/ocean-seas-and-coasts/regional-seas-programme/land-based-pollution).

[13] See UNEP, *From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution* (Nairobi, 2021).

[14] Kunming-Montreal Global Biodiversity Framework, target 7.

[15] UNEP, *Towards a Pollution-free Planet: Background Report* (Nairobi, 2017), pp. 14–17.

[16] See Natalia Rodríguez Eugenio and Marilena Ronzan, "Sources of soil pollution", in *Global Assessment of Soil Pollution,* Food and Agriculture Organization of the United Nations (FAO) and UNEP (Rome, 2021).

[17] INTERPOL, "Crimes, Environmental crime, Pollution crime". Available at https://www.interpol.int/en/Crimes/Environmental-crime/Pollution-crime.

[18] See United Nations Convention against Transnational Organized Crime, art. 2 (a).

borders to evade import and export regulations.[19] Organized criminal groups have been reported as having committed emissions fraud and participated in fraudulent activities relating to carbon trading schemes, which were set up in application of the Kyoto Protocol to the United Nations Framework Convention on Climate Change.[20] The groups have exploited carbon credit systems to engage in fraudulent financial schemes, including generating illicit profits by manipulating carbon emissions data or creating fake carbon credits to sell to unsuspecting buyers.

The European Union Agency for Law Enforcement Cooperation (Europol) has also raised concerns over the increasing involvement of organized criminal groups in the counterfeit pesticide market and the trafficking of unregulated substances within the agricultural sector.[21] Organized criminal groups have been reported as operating through underground networks, online platforms and unregulated markets, selling illegal pesticides to farmers seeking cheaper or unapproved alternatives. The use of illegal pesticides not only contaminates the soil but also compromises the integrity of farming. In addition, it undermines consumer confidence in organic produce, eroding trust in the authenticity and safety of certified organic products.

PURPOSE, SCOPE AND TARGET AUDIENCE OF THE GUIDE

The present guide is intended to support States in enacting or strengthening domestic legislation for preventing pollution crime, in particular through the implementation of the Organized Crime Convention. It is therefore primarily intended for policymakers, legislators and the legislative drafters supporting them to enact and strengthen legislation. It contains discussion and analysis of the issues relating to the implementation of legislative frameworks aimed at preventing and combating waste trafficking by investigators, prosecutors, judges and other actors in the criminal justice system, in particular where those issues should also be considered by policymakers, legislators and legislative drafters. The guide may also prove useful for other actors in the criminal justice system, academics, civil society and other relevant stakeholders.

At the outset, it is worth noting that the guide addresses pollution from a criminal justice policy perspective. Although criminal justice approaches are a necessary component of a holistic policy response to pollution, they are not – and must not be – the only approaches taken, as they are not, in and of themselves, sufficient. However, while broader regulatory approaches to pollution are critical in addressing pollution crime, they lie beyond the scope of this guide.

HOW TO USE THIS GUIDE

States may use this guide as a tool when drafting, reviewing or amending relevant national legislation for preventing and combating pollution crime. As national legislation must be tailored to each State's legal tradition and social, economic, cultural and geographical circumstances, the guide does not provide and should not be seen as providing a "one size fits all" model law that is ready to be introduced into any and all domestic legal systems. Rather, States should adapt the model provisions and the guidance provided to fit local conditions, constitutional principles, legal culture and structures, and existing enforcement arrangements. It is recommended that States consult with all relevant stakeholders as they engage in the process of drafting, reviewing or amending waste trafficking legislation.

States have taken various approaches to establishing pollution offences. Some States have established pollution offences in specialized pollution or environmental legislation, whereas others have incorporated such offences into existing penal codes. States should ensure that pollution offences and related provisions are harmonized

[19] See INTERPOL, The Nexus between Organized Crime and Pollution Crime, Strategic Report (Lyon, France 2022).

[20] Ibid.

[21] Europol, *Environmental Crime in the Age of Climate Change: Threat Assessment 2022* (Luxembourg, Publications Office of the European Union, 2022).

with existing domestic legislation in order to avoid the inadvertent creation of loopholes, overlap or contradictions that inhibit the effectiveness of such legislation.

Throughout the model legislative provisions contained in the guide, square brackets are used to indicate words or phrases that will need to be adapted to the State in question, for example where model provisions refer to the name of the State, other provisions contained in the guide, other domestic laws, and domestic courts, ministries and competent authorities. Square brackets are also used to emphasize situations in which alternative wording is presented to legislative drafters for their consideration.

OVERVIEW AND CONTENTS OF THE GUIDE

The guide is divided into eight chapters:

- Chapter I: Key considerations
- Chapter II: General provisions
- Chapter III: Offences and liability
- Chapter IV: Investigation
- Chapter V: International cooperation
- Chapter VI: Prosecution
- Chapter VII: Penalties and sentencing
- Chapter VIII: Protection and assistance

Chapter I sets out key, broad considerations relating to the adoption or amendment of legislation concerning pollution crime. Chapters II to VIII include legislative guidance, model legislative provisions, and national and regional legislative examples. Model legislative provisions are set out in brown boxes. Broader legislative guidance, contextualizing and providing explanation of model legislative provisions, as well as highlighting key issues relating to their implementation, is set out in the main body text of the guide. National and regional legislative examples are set out in beige boxes and have been included to show how relevant provisions have been legislated in practice. Care has been taken to ensure equitable geographical representation in the domestic legislative examples presented and to reflect the diversity of legal traditions of States. Case studies and other supplementary information are set out in grey boxes.

Chapter I.

KEY CONSIDERATIONS

Before reviewing the types of legislative provision that are components of effective legal frameworks for combating pollution crime, this chapter outlines some of the key considerations of broad relevance to drafting such legislation.

INTERNATIONAL LEGAL FRAMEWORK

When developing legislation for combating pollution crime, States must adhere to their obligations under international law. These include obligations under treaties to which they are party, and obligations under customary international law.

This chapter examines some of the most pertinent international legal instruments and principles that States should take into consideration when adopting or amending national legislation on pollution crimes. Three areas of international law are of particular relevance in this regard, namely international environmental law, what may be termed the international legal framework for combating serious crime, and international human rights law.

Although an attempt is made to provide a broad overview of relevant issues, it is important to note that an exhaustive account of the international legal framework related to pollution is beyond the scope of this guide. Moreover, as States may be parties to some international and regional treaties but not to others, the obligations of States will necessarily differ. Accordingly, in assessing the applicable international legal framework for a given State, it is necessary to determine the specific treaties of relevance to which they are a party.

International environmental law

International environmental law refers to the legal and regulatory framework devised by the community of sovereign States for addressing global environmental harms.[22] The framework of international environmental law includes, among other sources, a growing number of international treaties, as well as non-binding

[22] Lavanya Rajamani and Jacqueline Peel, "International environmental law: changing context, emerging trends and expanding frontiers", in *The Oxford Handbook of International Environmental Law*, 2nd ed., Lavanya Rajamani and Jacqueline Peel, eds. (Oxford, United Kingdom of Great Britain and Northern Ireland, Oxford University Press, 2021), p. 2.

declarations and resolutions. In this section, key international environmental law instruments relating to pollution are discussed, and relevant principles of international environmental law are then considered.

Key instruments

Air, land and water pollution are addressed in a number of international treaties. The instruments generally outline shared responsibilities, promote cooperation among States and establish mechanisms for monitoring environmental standards at the international level to foster responsible and sustainable practices for protecting the environment. Because of the polluting effects that hazardous and other wastes can have on air, land and water, international instruments that regulate the transboundary movement of waste are also of relevance for combating pollution crime. This section considers key international treaties addressing each of those issues.[23]

Air pollution

Air pollution is addressed, directly or indirectly, by several international agreements. The Kyoto Protocol indirectly addresses air pollution by committing industrialized countries and economies in transition to limiting and reducing greenhouse gas emissions in accordance with agreed individual targets.

The Montreal Protocol on Substances that Deplete the Ozone Layer also indirectly addresses air pollution by regulating substances such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) that also contribute to air pollution.[24] Illegal trade in ozone-depleting substances controlled under the Montreal Protocol is dealt with at the State level through a system of export and import licences enforced by relevant national authorities.[25]

The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, and as further amended by the Protocol of 1997, addresses air pollution from ships through its annex VI on prevention of air pollution from ships, which entered into force in 2005. Under annex VI, limits are imposed on the air pollutants contained in ships' exhaust gas, including sulphur oxides, particulate matter and nitrous oxides; the deliberate emission of ozone-depleting substances is prohibited; and there are requirements that ship operators maintain certain records.[26] Those records may be inspected by State port authorities during routine inspections, and non-compliance may lead to penalties or detention.

Land pollution

As both industrial activities, such as chemical manufacturing and waste disposal, and agricultural practices, including the use of pesticides, fertilizers and improper manure management, contribute to land pollution by releasing various contaminants into the soil, land pollution is mainly addressed through instruments regulating and preventing the release of chemicals and waste into the environment.

The Stockholm Convention on Persistent Organic Pollutants is a key international agreement that protects against pollution of land caused by persistent organic pollutants. The Stockholm Convention is aimed at controlling and ultimately eliminating the production, use and release of persistent organic pollutants, many of which have been found to accumulate in soil and sediments. The control framework of the Stockholm Convention is intended to prevent further contamination of land and soil, reducing the long-term impact on ecosystems and human health. The Convention includes provisions for monitoring and reporting on the production, use and release of persistent organic pollutants.

[23] The international legal framework with respect to pollution is evolving. The instruments outlined in this section may be complemented or superseded by future instruments.

[24] The most recent amendment, adopted in Kigali in 2016, expanded the scope of the Montreal Protocol to cover the phase-down of hydrofluorocarbons, which closed a gap between the climate and ozone regimes. See Amendment to the Montreal Protocol, art. IV. The Amendment guarantees that the two regimes will be implemented in a way that is mutually supportive.

[25] Decisions XIV/7, XVII/16 and XXIV/12 of the Meeting of the Parties to the Montreal Protocol.

[26] Annex VI (Regulation 22.1).

Water pollution

Pollution of international and transboundary watercourses and international lakes is addressed by two international conventions adopted under the auspices of the Economic Commission for Europe but which have also been ratified by States from other regions. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes serves as a mechanism for strengthening international cooperation and national measures for the ecologically sound management and protection of transboundary surface waters and groundwaters. Parties are required, among other things, to take all appropriate measures to prevent, control and reduce pollution of waters causing or likely to cause transboundary impact. Under the Convention on the Law of the Non-navigational Uses of International Watercourses, watercourse States are required, individually and, where appropriate, jointly, to prevent, reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse States or to their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose or to the living resources of the watercourse. In being aimed at conserving wetlands as regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl, the Convention on Wetlands of International Importance especially as Waterfowl Habitat also indirectly touches upon the issue of water pollution.

Transboundary movement of waste

The principal international agreement of relevance to the transboundary movement of waste is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of inappropriate management and transboundary movements of hazardous wastes.[27]

The Basel Convention establishes a procedure known as "prior informed consent", under which parties are required to prohibit or refrain from permitting the export of hazardous and other wastes to an importing State if the importing State has not given its consent in writing to the specific import,[28] where the importing State has not prohibited the import of such wastes outright.[29] Consent is also required from any transit State, unless the transit State has dispensed with that requirement.[30] The Basel Convention states that parties to the Convention consider the illegal traffic in hazardous and other wastes to be criminal[31] and provides for parties to introduce appropriate legislative measures to prevent and punish illegal traffic and to cooperate with each other to that end.[32] Under article 9 of the Basel Convention, the definition of "illegal traffic" includes any transboundary movement of hazardous or other wastes that results in deliberate disposal in contravention of the Convention and of general principles of international law.[33]

Parties to the Basel Convention are also obliged to take appropriate measures to ensure that the generation of hazardous and other wastes in their territory is reduced to a minimum[34] and to ensure the availability of adequate disposal facilities for the environmentally sound management of hazardous and other wastes.[35] Parties must further ensure that the transboundary movement of hazardous and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes,[36] and

[27] Ieva Rucevska and others, *Waste Crime – Waste Risks: Gaps in Meeting the Global Waste Challenge – A Rapid Response Assessment* (Nairobi, UNEP, 2015), p. 11.

[28] Basel Convention, art. 4 (1) (c). The prior informed consent procedure is further elaborated in article 6.

[29] Basel Convention, art. 4 (1).

[30] Ibid., art. 6 (4).

[31] Ibid., art. 4 (3).

[32] Ibid., art. 9 (5). See also art. 4 (4). For the meaning of "illegal traffic" for the purposes of the Basel Convention, see art. 9 (1).

[33] Ibid., art. 9 (1) (e).

[34] Ibid., art. 4 (2) (a).

[35] Ibid., art. 4 (2) (b). Under article 2 (8), "environmentally sound management of hazardous wastes or other wastes" is defined as taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes.

[36] Ibid., art. 4 (2) (d).

are obliged to prevent the import or export of hazardous and other wastes where they have reason to believe that such wastes will not be managed in an environmentally sound manner.[37]

Under an amendment to the Basel Convention that entered into force on 5 December 2019, parties listed in annex VII to the Convention are required to prohibit all transboundary movements of hazardous wastes destined for disposal in States not included in annex VII, and also to prohibit all transboundary movements of hazardous wastes covered under article 1 (1) (a) of the Convention[38] and destined for reuse, recycling or recovery operations in non-annex VII States.[39]

Key principles

It is beyond the scope of this guide to provide a comprehensive overview of all the provisions of the aforementioned agreements that may be relevant to States in developing or amending legislation for combating pollution crime. This section provides, however, an overview of some of the key principles that underpin such agreements and other instruments of international environmental law, and which should, or in some circumstances must, be taken into account by legislators.

Principle of sovereignty and "do no harm" principle

Two key principles for addressing pollution crime are the principle of sovereignty and the "do no harm" principle. The principle of sovereignty, which is a broader principle of international law, means, in the context of pollution management, that each State has the autonomy to regulate and control activities within its borders, including those that may lead to pollution or its mitigation. While States have sovereign rights, they also share a collective responsibility to prevent environmental harm. The "do no harm" principle is a key principle of international environmental law and imposes a duty on States to prevent, reduce or control activities within their jurisdictions that may cause harm to the environment of other States or areas beyond their borders. Principle 21 of the Declaration of the United Nations Conference on the Human Environment, adopted in 1972 in Stockholm, encapsulates the concept:

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and 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.

Many pollution-related international treaties incorporate the "do no harm" principle. For example, article 194 (2) of the 1982 United Nations Convention on the Law of the Sea provides for the following:

> States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.

Article 7 of the Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, adopted in 2023, provides that parties should be guided by the principle of the non-transfer, directly or indirectly, of damage or hazards from one area to another and the non-transformation of one type of pollution into another in taking measures to prevent, reduce and control pollution of the marine environment. The preamble of the

[37] Ibid., art. 4 (2) (e) and (g).

[38] This includes wastes considered as hazardous under the Basel Convention but does not cover wastes that are only considered as hazardous by the domestic legislation of the party of export, import or transit, and not under the Convention.

[39] Basel Convention, art. 4A. Further information on the Ban Amendment is available at www.basel.int.

United Nations Framework Convention on Climate Change also echoes principle 21 of the Declaration of the United Nations Conference on the Human Environment.[40]

Principle of prevention

The principle of prevention encompasses a fundamental duty placed upon States not only to react to environmental harm but also to adopt anticipatory measures to preclude such harm from occurring in the first place. This involves taking appropriate actions to forestall damage to the environment and, where applicable, employing strategies to reduce, limit or control activities that might potentially cause or pose a risk of pollution. At its core, the principle of prevention epitomizes a forward-looking and responsible approach to pollution based on due diligence and duty of care. It requires States to be proactive in assessing and managing environmental risks arising from human activities. This includes conducting environmental impact assessments, implementing regulatory frameworks, monitoring activities and enforcing laws and regulations for preventing pollution and environmental degradation more generally.

Most treaties in international environmental law embody the principle of prevention. For example, the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the 1978 and 1997 Protocols, sets out comprehensive pollution prevention standards and regulations related to various sources of marine pollution, including oil, noxious liquid substances, harmful substances carried by sea in packaged form, sewage, garbage and air emissions. A strong emphasis is also placed in the Basel Convention on the prevention of hazardous waste generation and the minimization of transboundary pollution. Under article 9 (5) of the Basel Convention, each party is required to introduce appropriate domestic legislation to prevent and punish illegal traffic of hazardous and other wastes. The Convention's prior informed consent procedure[41] ensures that the exporting State notifies the receiving State about proposed shipments of hazardous waste. This enables the receiving State to evaluate the potential environmental and health risks and decide whether to consent to the import.

Climate change and greenhouse gas emissions are addressed under the United Nations Framework Convention on Climate Change by stressing the principle of prevention and emphasizing the need to avert dangerous anthropogenic interference with the climate system.[42] The Paris Agreement, adopted by the Conference of the Parties to the Convention, explicitly includes the goal of limiting global warming to well below 2 degrees Celsius above pre-industrial levels, with an aspirational target of 1.5 degrees Celsius. The temperature targets are intended to prevent more severe climate change impacts and are aimed at guiding international efforts in reducing greenhouse gas emissions. Under the Paris Agreement, each participating State is required to submit nationally determined contributions that outline their specific targets and actions for mitigating greenhouse gas emissions.[43] The nationally determined contributions are expected to reflect a State's best efforts to prevent climate change within the framework of its capabilities and domestic circumstances.

The Vienna Convention for the Protection of the Ozone Layer and the associated Montreal Protocol are also focused on preventing ozone layer depletion, as it leads to increased ultraviolet radiation. The Montreal Protocol adopts a preventive approach by targeting the production and consumption of ozone-depleting substances. In doing so, it sets specific phase-out schedules for each controlled substance, with more aggressive timelines for substances that are particularly damaging to the ozone layer. The schedules are designed to progressively reduce the use of ozone-depleting substances, demonstrating a commitment to preventing ozone depletion.

[40] It is recalled in the preamble to the Convention that States have the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and 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.

[41] Basel Convention, art. 6.

[42] United Nations Framework Convention on Climate Change, art. 2 (1).

[43] Paris Agreement, art. 4 (2).

Precautionary principle

In situations where there is scientific uncertainty regarding the potential harm caused by pollution or specific pollutants, the precautionary principle may be invoked to guide decision-making and the implementation of preventive measures. The precautionary principle is used by decision makers to take action when an activity, product or technology has the potential to cause harm to the environment or human health, even if there is no conclusive scientific evidence of such harm. For instance, Governments may restrict or even ban certain pollutants when there is a reasonable suspicion, but no specific scientific findings, of harm caused by those pollutants.

Developments related to ozone depletion in the mid-1980s played a pivotal role in promoting and establishing the precautionary principle as a guiding principle in international environmental agreements.[44] The Montreal Protocol incorporated the precautionary principle in its control of emissions of ozone-depleting substances into the atmosphere. The inclusion of the term "precautionary measures" in the Montreal Protocol underscores the commitment of the parties to addressing the ozone layer depletion issue proactively, acting in the face of scientific uncertainties about the potential consequences of ozone layer damage.[45] Furthermore, the phase-down of hydrofluorocarbons is called for in the Kigali Amendment to the Montreal Protocol. Hydrofluorocarbons were used as replacements for certain ozone-depleting substances eliminated by the Montreal Protocol and, although they do not deplete the ozone layer, they are known to be powerful greenhouse gases and therefore contribute to climate change.

The extent of caution exercised when addressing potential risks varies significantly among the various formulations of the precautionary principle. Some formulations may emphasize a more proactive approach, advocating for robust preventive measures in the face of uncertainty, whereas others may allow for a more cautious response, taking into account the specific context and nature of the risk. For example, principle 15 of the Rio Declaration on Environment and Development, adopted in 1992 by the United Nations Conference on Environment and Development, states the following:

> In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The wording of the precautionary principles in the Rio Declaration establishes a minimum standard by asserting that scientific uncertainty cannot be invoked in order to postpone cost-effective measures in cases of serious or irreversible damage. It also emphasizes that the precautionary approach should be widely applied. The Rio Declaration serves as a baseline for the precautionary principle, allowing for more proactive approaches to be adopted. The Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, for example, has a lower threshold for environmental risk in its precautionary approach:

> Each Party shall strive to adopt and implement the preventive, precautionary approach to pollution problems which entails, inter alia, preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm.[46]

In certain contexts, action pursuant to the precautionary principle may also be based on traditional knowledge of Indigenous Peoples and local communities. Such an approach is incorporated into the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable use of Marine Biological Diversity of Areas Beyond National Jurisdiction. It is stated in article 7 of the Agreement that parties shall be guided, among other things, by the precautionary principle or precautionary approach, as

[44] Philippe Sands and others, *Principles of International Environmental Law,* 4th ed. (Cambridge, United Kingdom of Great Britain and Northern Ireland, Cambridge University Press, 2018), p. 231.

[45] "Determined to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations" (Montreal Protocol, sixth preambular paragraph).

[46] See Bamako Convention, art. 4 (3) (f).

appropriate. Article 24 of the Agreement provides that measures adopted on an emergency basis shall be based on the best available science and scientific information and, where available, relevant traditional knowledge of Indigenous Peoples and local communities and shall take into account the precautionary approach.[47] The use of such knowledge can promote the rights of Indigenous Peoples while also contributing to the more effective conservation and sustainable use of marine genetic resources.

"Polluter pays" principle

The "polluter pays" principle refers to the idea that the costs of pollution should be borne by the natural or legal person responsible for causing that pollution. The "polluter pays" principle aligns with principles of equity and environmental justice. It ensures that the burden of addressing pollution is placed on those responsible, rather than on innocent parties or the general public, who may be adversely affected by pollution. The principle is enshrined in principle 16 of the Rio Declaration:

> National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment.

The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the 1978 and 1997 Protocols, for example, incorporates the "polluter pays" principle through its various annexes, which set out specific regulations for preventing and managing pollution. Annex I outlines the shipowner's liability for oil pollution damage and costs, and stipulates that the shipowner is financially responsible for any expenses related to pollution clean-up or damages caused by oil spills from its vessels. Annex VI, which deals with the prevention of air pollution from ships, including sulfur oxide and nitrogen oxide emissions, requires ships to reduce their emissions through the use of cleaner fuels and technologies. Shipowners are responsible for the costs of implementing such measures, which include installing exhaust gas cleaning systems (scrubbers) to reduce air pollutants.

The "polluter pays" principle is reflected in numerous international environmental treaties.[48] The preamble to the Stockholm Convention, for example, underlines the importance of manufacturers of persistent organic pollutants taking responsibility for reducing adverse effects caused by their products. The Convention is aimed at eliminating or restricting the production and use of certain hazardous chemicals, and incorporates the "polluter pays" principle by placing the onus on the industries that manufacture and use the chemicals to bear the costs of managing and disposing of them. While the Convention does not include the term "polluter pays", it establishes a framework under which parties are expected to contribute to the costs associated with addressing persistent organic pollutants, and the industries and activities responsible for the pollutants are indirectly required to bear some of the financial burden.[49]

Principle of intergenerational equity

The principle of intergenerational equity reflects the idea that human beings exist in a community of generations that affect the natural world and are affected by it, and which have a responsibility to care for the natural world for future generations.[50] The principle includes the need to conserve the quality of the environment and the diversity of the Earth's natural resources and the need to provide equitable or non-discriminatory access to the Earth and its resources.[51] The principle is reflected in numerous international treaties and declarations.

[47] See also Clement Yow Mulalap and others, "Traditional knowledge and the BBNJ instrument," *Marine Policy*, vol. 122, art. No. 104103 (December 2020).

[48] See Sands and others, *Principles of International Environmental Law*, p. 243.

[49] See Stockholm Convention, art. 6 (Measures to reduce or eliminate releases from stockpiles and waste) and art. 13 (Financial resources and mechanisms).

[50] Edith Brown Weiss, "Implementing intergenerational equity" in *Research Handbook on International Environmental Law*, Malgosia Fitzmaurice, David M. Ong and Panos Merkouris, eds. (Cheltenham, United Kingdom, Edwin Elgar Publishing, 2010), p. 102.

[51] Ibid., pp. 102 and 103.

Principle 3 of the Rio Declaration states that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

The preamble to the United Nations Framework Convention on Climate Change notes the parties' determination to protect the climate system for present and future generations. Article 3 (1) further provides that, in their actions to implement the Convention and achieve its objective, the parties shall be guided by the principle that they should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. The principle of intergenerational equity has also been reflected in subsequent climate change instruments.

The preamble to the Convention on Biological Diversity notes the contracting parties' determination to conserve and sustainably use biological diversity for the benefit of present and future generations. The notion of "sustainable use", fundamental to the provisions of the Convention, is defined with reference to the principle of intergenerational equity. Article 2 of the Convention provides the following:

> "Sustainable use" means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

Principle of cooperation

Cooperation among States for addressing environmental issues that transcend national boundaries, such as air and water pollution, climate change, biodiversity loss and transboundary movement of hazardous waste, is critical under international environmental law. Cooperation involves mechanisms for sharing information and technology, negotiating agreements and establishing common standards for protecting the environment collectively.

Principle 24 of the Declaration of the United Nations Conference on the Human Environment states the following:

> International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

The principle of cooperation is reiterated in principle 27 of the Rio Declaration:

> States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

With regard to air pollution, international agreements can foster cooperation among countries for reducing transboundary air pollution. The Convention on Long-range Transboundary Air Pollution, for instance, outlines the specific measures that parties should take to reduce transboundary air pollution. Under article 3 of the Convention, parties are required, by means of exchanges of information, consultation, research and monitoring, to develop policies and strategies to combat the discharge of air pollutants, taking into account efforts already made at the national and international levels. Article 4 of the Convention promotes cooperation in research and monitoring activities related to air pollution.

Cooperation under water pollution treaties also involves the prevention of pollution incidents, and coordinated responses to emergencies, including in the context of chemical spills or oil leaks. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes contains specific provisions that promote international cooperation for addressing transboundary water management. Article 2 (6) of the

Convention sets out the basic principles, emphasizing the principle of cooperation in managing transboundary water resources implemented by riparian parties on the basis of equality and reciprocity.

Cooperation lies at the heart of climate change treaties. The United Nations Framework Convention on Climate Change, in its article 4, outlines the commitments of developed and developing country parties for cooperation in reducing greenhouse gas emissions and assisting each other in adapting to the impacts of climate change. In article 4, the development and transfer of environmentally sound technologies are encouraged, acknowledging the importance of cooperation in advancing technology solutions for climate change mitigation and adaptation. The principle of cooperation is also reflected in instruments such as the Kyoto Protocol and the Paris Agreement. The Kyoto Protocol promotes international cooperation for combating climate change and air pollution. It sets legally binding emission reduction targets for participating countries, encouraging collaborative efforts for reducing greenhouse gas emissions and mitigating air pollution through market-based mechanisms such as emissions trading and the clean development mechanism.[52]

Principles of access to information, public participation and access to justice

Since the 1990s, if not earlier, access to information, public participation and access to justice have received increasing recognition as principles of international environmental law. The three related principles are recognized in principle 10 of the Rio Declaration, which states the following:

> Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

The principles of access to information, public participation and access to justice are often collectively referred to as the Aarhus principles. These principles are set out in the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, which was adopted in Aarhus, Denmark, in 1998, under the auspices of the Economic Commission for Europe, and has a focus on environmental governance and sustainable development.

Since the adoption of the Rio Declaration, provisions on public participation have been included in almost all international environmental treaties.[53]

The principles of access to information, public participation and access to justice are further developed in other international and regional instruments, including the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement), adopted under the auspices of the Economic Commission for Latin America and the Caribbean. The language used in the Escazú Agreement, in recognizing access to information, public participation and access to justice as human rights, highlights the close link between the principles and international human rights law.

As women's access to participation, information and justice in environmental issues can be limited or even entirely absent, despite the vital role that women play in environmental management and development, the Aarhus Convention is instrumental in promoting the rights of every person with regard to access to information, public participation in decision-making and access to justice in environmental matters, without discrimination.[54] In its decision III/4, the Conference of the Parties to the Escazú Agreement urged parties to

[52] Kyoto Protocol, arts. 12 and 17.

[53] Jonas Ebbesson, "Public participation", in *The Oxford Handbook of International Environmental Law*,2nd ed., Lavanya Rajamani and Jacqueline Peel, eds. (Oxford, Oxford University Press, 2021), p. 354.

[54] See also Economic Commission for Europe, "About environment and gender". Available at https://unece.org.

continue to promote the full and effective participation of women in all their diversity, including Indigenous women, and the incorporation of a gender-equality perspective into the implementation of the Agreement.

International legal framework for combating serious crime

When developing or amending legislation for combating pollution crime, States must also take into account the international legal framework against organized crime and corruption, in particular the United Nations Convention against Transnational Organized Crime and the United Nations Convention against Corruption.

The Organized Crime Convention is the only international legally binding instrument against transnational organized crime. It was adopted by the General Assembly on 15 November 2000 and has since become one of the world's most widely ratified treaties.[55] Article 1 of the Convention states that the purpose of the Convention is to promote cooperation to prevent and combat transnational organized crime more effectively. Under the Convention, States parties are encouraged and, in some cases, required to implement a number of measures to that end, including measures that require the criminalization of particular conduct; measures concerning the investigation, prosecution and adjudication of crime; measures for international cooperation and assistance; measures for the protection of and provision of assistance to witnesses and victims; and prevention measures.

The scope of application of the Convention is defined in its article 3. The measures contained in the Convention apply, except where the Convention provides otherwise, to the prevention, investigation and prosecution of offences established in accordance with its criminalization provisions, and to serious crime, where such offences are transnational in nature and involve an organized criminal group. Under the Convention, an "organized criminal group" is defined as follows:

> A structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit.[56]

The Convention also provides further clarification as to the meaning of a "structured group".[57] The term "serious crime" is defined as conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty.[58] Article 3 (2) of the Convention sets out the criteria for determining when an offence will be considered transnational in nature, for the purpose of application of the Convention.[59]

The use of the notion of "serious crime" for defining the scope of the Convention with reference to the domestic law of States parties provides sufficient flexibility for the Convention to be applied to a broad range of manifestations of transnational organized crime[60] and enables the Convention to be applied to pollution crime where it involves offences punishable by a maximum penalty of four or more years of imprisonment under the law of a State party having jurisdiction over the offence, and where the other two requirements of transnationality and the involvement of an organized criminal group are met. Where that is the case, a State party may be subject to a number of duties under the Convention, including duties to ensure that particular conduct is criminalized,[61] to enable the confiscation of proceeds of crime and other property relating to

[55] For simplicity, the term "ratified" as used here includes accession, acceptance and approval. The current list of States parties to the Convention is available at https://treaties.un.org.

[56] Organized Crime Convention, art. 2 (a).

[57] Ibid., art. 2 (c).

[58] Ibid., art. 2 (b).

[59] Ibid., art. 3 (2).

[60] See Dimitri Vlassis, "Drafting the United Nations Convention against Transnational Organized Crime", in *Combating Transnational Crime: Concepts, Activities and Responses*, Phil Williams and Dimitri Vlassis, eds. (London, Frank Cass, 2001), p. 373.

[61] Organized Crime Convention, art. 5 (Criminalization of participation in an organized criminal group); art. 6 (Criminalization of the laundering of proceeds of crime); and art. 23 (Criminalization of obstruction of justice). Under article 8 (Criminalization of corruption), States parties are required to criminalize acts of corruption independently from the connection of such acts to a serious crime.

the offence,[62] to cooperate with other States parties in respect of the offences[63] and to protect witnesses and victims.[64]

As pollution crime is often facilitated by corruption, the Convention against Corruption is also relevant to the development and amendment of legislation against such crimes. The Convention against Corruption, adopted by the General Assembly on 31 October 2003, is the most comprehensive legally binding universal instrument on corruption.[65] The Convention provides for the criminalization of many different manifestations of corruption, such as bribery, embezzlement, trading in influence, abuse of functions and various acts of corruption in the private sector. It covers five main areas, namely preventive measures, criminalization and law enforcement, international cooperation, asset recovery, and technical assistance and information exchange. Measures to prevent and combat corruption are further considered in chapter III of this guide.

International human rights law

International human rights law constitutes an additional area of the international legal framework that States must take into account and comply with in developing and amending legislation for combating pollution crimes. The present section provides a brief introduction to relevant aspects of international human rights law in that context. An initial overview of the components of international human rights obligations is followed by discussion of how pollution and related crimes affect the enjoyment of human rights and the rights that may be affected by criminal justice responses to prevent and combat such crimes; the section ends with a summary of the framework provided by international human rights law for dealing with cases in which competing human rights must be balanced.

Components of international human rights obligations

International human rights norms which are binding on States involve obligations to respect, protect and fulfil human rights.[66] The obligation to respect human rights – generally understood as a negative obligation, that is, a duty to refrain from action – requires States not to interfere with or harm the human rights of others. The obligation to protect human rights requires that States protect individuals and groups against human rights violations by private persons and entities. States must establish and maintain legislative and administrative frameworks that ensure respect for human rights and provide appropriate protection to individuals.[67] In addition, States must take reasonable steps to prevent violations of human rights and protect individuals from such violations, to investigate violations, to prosecute and hold accountable those responsible, to eliminate

[62] Organized Crime Convention, art. 12 (Confiscation and seizure).

[63] See Organized Crime Convention, art. 13 (International cooperation for purposes of confiscation); art. 16 (Extradition); art. 18 (Mutual legal assistance); and art. 27 (Law enforcement cooperation). Other forms of international cooperation addressed by the Convention do not entail mandatory duties: see art. 17 (Transfer of sentenced persons); art. 19 (Joint investigations); art. 20 (Special investigative techniques); and art. 21 (Transfer of criminal proceedings).

[64] Organized Crime Convention, art. 24 (Protection of witnesses) and art. 25 (Assistance to and protection of victims). See also art. 26 (Measures to enhance cooperation with law enforcement authorities).

[65] A current list of States parties to the Convention against Corruption is available at https://treaties.un.org/.

[66] See Committee on Economic, Social and Cultural Rights, general comment No. 12 (1999) on the right to adequate food, para. 15; Ibid., general comment No. 13 (1999) on the right to education, para. 46; Ibid., general comment No. 14 (2000) on the right to the highest attainable standard of health, para. 33; Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework (A/HRC/17/31, annex), endorsed by the Human Rights Council in its resolution 17/4, para. 1; African Commission on Human and Peoples' Rights, *Social and Economic Rights Action Center and the Center for Economic and Social Rights v. Nigeria*, decision No. 155/96 (2001), para. 44; see also Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law (General Assembly resolution 60/147, annex), para. 3; and Human Rights Committee, general comment No. 31 (2004) on the nature of the general legal obligation imposed on States parties to the Covenant, para. 8.

[67] See International Covenant on Civil and Political Rights, art. 2 (2); African Charter on Human and Peoples' Rights, art. 1; American Convention on Human Rights, art. 1 (2); and Inter-American Court of Human Rights, *Velásquez-Rodríguez v. Honduras*, Judgment 29 July 1988, paras. 166, 167 and 175.

impunity and to redress harm by providing victims with reparation.[68] The third component of international human rights norms, the obligation to fulfil, requires States to adopt appropriate legislative, administrative, budgetary, judicial, promotional and other measures towards the full realization of human rights.[69] Obligations to fulfil are obligations of progressive realization, meaning that the full enjoyment of the right will generally not be possible immediately and may only be achievable progressively, over a period of time.[70]

The obligations to respect, protect and fulfil human rights must be duly considered in addressing pollution crimes, including through developing and amending relevant legislation. The following sections provide a brief overview of some of the human rights affected by pollution and related crimes, and those that may be affected by criminal justice responses thereto, and outline the framework provided by international human rights law for balancing such rights, where necessary.

Rights affected by pollution crimes

Pollution represents a significant and growing threat to the environment, public health, safety and sustainable development. As such, it constitutes a threat to the enjoyment of a number of human rights. For example, the work of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes[71] has demonstrated how exposure to pollution threatens the exercise of the right to life, the right to health, the right to physical and mental integrity, the right to adequate food, the right to water, the right to safe and healthy working conditions, and the right to a clean, healthy and sustainable environment.[72] Women, children, Indigenous people, persons with disabilities, workers, people living in poverty, migrants and minorities are disproportionately affected,[73] and therefore issues relating to non-discrimination in the protection of rights under international human rights law need to be considered in that regard.[74]

As noted above, States must not only themselves respect human rights but must also protect individuals and groups from violations of those rights by private persons and entities. This includes an obligation to protect individuals and groups from the release of hazardous substances and related activities.[75] States have a duty to prevent exposure to pollution that derives from the many human rights threatened by such exposure, as States cannot meet their human rights obligations without preventing human exposure to pollution.[76] This includes a duty to establish and maintain appropriate legislative and administrative frameworks for preventing and combating pollution crimes and to take reasonable steps to prevent violations, protect individuals, investigate violations, prosecute and hold accountable those responsible, eliminate impunity, guarantee access to justice for victims and redress harm by providing victims with reparation. The legislative provisions and related measures, institutions, processes and practices foreseen by this guide may be seen, in that context, as contributing to the fulfilment of States' duties to protect individuals and groups from rights violations.

[68] Inter-American Court of Human Rights, *Velásquez-Rodríguez v. Honduras*, paras. 166, 167 and 174; Human Rights Committee, general comment No. 31 (2004), para. 8; European Court of Human Rights, *Ergi v. Turkey*, Application No. 66/1997/850/1057, Judgment, 28 July 1998, para. 82; and African Court on Human and Peoples' Rights, *Norbert Zongo and Others v. Burkina Faso*, Case No. 13/2011, Judgment, 28 March 2014, paras. 150–156. See also General Assembly resolution 65/228.

[69] Committee on Economic, Social and Cultural Rights, general comment No. 14 (2000), para. 33; and Office of the High Commissioner for Human Rights (OHCHR), *Principles and Guidelines for a Human Rights Approach to Poverty Reduction Strategies* (Geneva, 2006), para. 48.

[70] Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002) on the right to water, para. 25; and ibid., general comment No. 14 (2000), paras. 33 and 37. See also general comments No. 12 (1999), para. 15 and No. 13 (1999), para. 47.

[71] "Consistent with the previous reports of the Special Rapporteur and his predecessors, hazardous substances and wastes are not strictly defined; they include, inter alia, toxic industrial chemicals and pesticides, pollution, contamination, explosive and radioactive substances, certain food additives and various forms of waste" (A/HRC/36/41, footnote 1).

[72] See, for example, A/HRC/33/41, A/HRC/36/41, A/HRC/42/41, A/73/567, A/74/480 and A/75/290. The right to a clean, healthy and sustainable environment was recognized as a human right by the General Assembly in its resolution 76/300, adopted on 28 July 2022.

[73] See A/75/290, A/77/183, A/HRC/33/41, A/HRC/36/41 and A/HRC/42/41.

[74] See A/75/290 para. 51; and A/HRC/36/41, paras. 15 and 16.

[75] See A/HRC/36/41, para. 4.

[76] A/74/480, paras. 6 and 7.

Rights that may be affected by criminal justice responses to pollution crimes

The human rights of those affected by or vulnerable to pollution offences are not the only human rights that States must consider in developing and amending legislation. States must also respect and protect the rights of other groups of people, including persons suspected, accused or convicted of pollution crimes; other persons who may be affected by measures adopted for the repression of such crimes; and witnesses and persons collaborating with authorities. Each of the measures covered in this guide, namely, criminalization, investigation, international cooperation, prosecution, penalties and sentencing, as well as protection of and assistance for witnesses and victims, has the capacity to affect the human rights of those groups. The rights include the principle of legality, the presumption of innocence, the right to freedom from arbitrary deprivation of liberty, the right to a fair trial, the right to be heard, the right to legal aid, the prohibition of torture and cruel or inhuman or degrading treatment or punishment, the right to privacy, the right to health, the right to property, freedom from discrimination, the right to a remedy and the right to the truth. States must give those rights appropriate consideration and comply with all human rights obligations to which they are bound under international law when developing and amending legislation for combating pollution crime.[77]

Although each of the aforementioned rights must be given full consideration, such consideration is beyond the scope of this guide. An overview of the principle of legality is, however, included, as that principle is integral to the process of drafting and amending criminal legislation. The principle of legality requires, among other things, that laws establishing criminal offences and providing for criminal punishments should be clear and accessible, such that the consequences of an individual's acts or omissions can be foreseeable to them.[78] Clarity in drafting is therefore important not only from the perspective of developing effective legislation but also from the perspective of respect for human rights. In drafting or amending legislation for combating pollution crime, States must take care to avoid unclear, imprecise, ambiguous, inconsistent or contradictory legal requirements.

Framework for balancing human rights

As noted above, a wide range of variety of groups may be affected by pollution crimes, and there is also a wide range of associated criminal justice responses and human rights applicable to those groups. It is incumbent upon legislators to ensure that legislation combating pollution crime respects, protects and fulfils the rights of all groups. Where there is a conflict of rights, legislators (as well as courts, law enforcement agencies and other State organs) must strike an appropriate balance. International human rights law provides the framework that States must apply in achieving this balance.

International and regional human rights instruments may provide for human rights guarantees in either absolute or qualified terms. Whereas absolute rights may never be restricted, qualified rights may be limited, provided certain conditions established by international human rights law are met. Although the language used to qualify human rights may differ between and within instruments, in general, limitations may be imposed on human rights where they are prescribed by clear and accessible law,[79] serve a legitimate aim, and are necessary for meeting, and proportionate to, that legitimate aim.[80] A legitimate aim may include respect for, or protection of, the rights of others or certain public interests, such as public order, public health, public safety or national security.[81] The protection of public health and the protection of the rights of those affected

[77] For further guidance on how States can identify and comply with their obligations in this regard, please refer to UNODC, *Issue Paper: The United Nations Convention against Transnational Organized Crime and International Human Rights Law* (Vienna, 2022).

[78] Kenneth S. Gallant, *The Principle of Legality in International and Comparative Criminal Law,* Cambridge Studies in International and Comparative Law Series, No. 65 (Cambridge, United Kingdom; New York, Cambridge University Press, 2008) pp. 362–364.

[79] Human Rights Committee, general comment No. 34 (2011) on the freedoms of opinion and expression, para. 25. See also Oscar M. Garibaldi, "General limitations on human rights: the principle of legality", *Harvard International Law Journal*, vol. 17, No. 3 (December 1976).

[80] Human Rights Committee, general comment No. 31 (2004), para. 6; and Human Rights Council resolution 15/21, para. 4. On the application of these requirements, formulated in the context of the International Covenant on Civil and Political Rights, to other human rights treaties, see Olivier De Schutter, *International Human Rights Law: Cases, Materials, Commentary*, 3rd ed. (Cambridge, United Kingdom, Cambridge University Press, 2019), pp. 288–292.

[81] See the Siracusa Principles on the Limitation and Derogation of Provisions in the International Covenant on Civil and Political Rights.

by, or vulnerable to, victimization by pollution crimes may therefore justify the imposition of criminal justice measures for preventing and combating such crimes, provided that the measures are prescribed by clear and accessible law and are necessary for meeting, and are proportionate to, their legitimate aim.

NATIONAL LEGAL AND POLICY FRAMEWORKS

A key consideration for the development of legislation for combating pollution crime is the relationship between such legislation and the broader domestic legal and policy frameworks governing pollution and the environment. The domestic legal framework may include environmental and other laws and regulations, as well as the national constitution. The domestic policy framework may include broader policies, strategies and approaches.

It is necessary to consider such broader frameworks when developing or amending legislation for combating pollution crime in order to ensure that national policies, strategies, approaches and legislative instruments are harmonized and complementary, and not inconsistent or contradictory. In addition, States must recognize that, while criminal justice approaches to pollution crime have their advantages, they also have their limitations. More holistic legislative and policy approaches are needed for preventing and reducing pollution.

This section includes consideration of specific aspects of the domestic legal framework of relevance in that context, namely the topics of constitutional provisions relating to environmental rights and duties, environmental authorizations, environmental impact assessments, schedules and classifications of pollutants and protected areas, and emissions trading systems and pollution taxes.

Constitutional provisions relating to environmental rights and duties

The constitutions of many States contain provisions relating to environmental rights and duties. Constitutional provisions often include clauses or articles that explicitly safeguard individual environmental rights of citizens.[82] Some States have also provided for the rights of nature in their national constitution.[83] Specific legal provisions may vary from one country to another, influenced by legal traditions, cultural contexts, and the level of development in environmental laws and institutions.

With regard to the rights of citizens, many national constitutions guarantee the right to a clean and healthy environment, emphasizing the right of citizens to live in an environment free from pollution and ecological degradation. This often includes provisions ensuring clean air, water and soil. Some constitutions also establish a duty to protect and conserve the environment for present and future generations, and may emphasize sustainable development practices that balance environmental conservation with socioeconomic progress.

[82] See David R. Boyd, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights, and the Environment* (Vancouver, Canada, University of British Colombia Press, 2012).

[83] Alex Putzer and others, "Putting the rights of nature on the map. A quantitative analysis of rights of nature initiatives across the world", *Journal of Maps*, vol. 18, No. 1 (2022), pp. 89–96.

LEGISLATIVE EXAMPLE: ARGENTINA

National Constitution (1853, reinstated 1983, revised 1994)

[…]

Article 41. All citizens have the right to a healthy and balanced environment fit for human development such that productive activities may meet present needs without jeopardizing those of future generations; and they have a duty to preserve the environment. As a first priority, any environmental damage shall create an obligation to remediate such damage according to the law.

The authorities shall provide for the protection of this right, the rational use of natural resources, the preservation of natural and cultural heritage and of biological diversity, and shall also provide for environmental information and education.

The Nation shall issue minimum protection standards, and the provinces shall issue such standards as are necessary to complement the national standards, without prejudice to local jurisdictions.

It is forbidden to bring into the national territory any waste that is hazardous or potentially hazardous or any radioactive waste.

[…]

LEGISLATIVE EXAMPLE: SOUTH AFRICA

National Constitution (1996)

[…]

24. Environment

Everyone has the right:

(a) to an environment that is not harmful to their health or well-being; and

(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:

(i) prevent pollution and ecological degradation;

(ii) promote conservation; and

(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

[…]

LEGISLATIVE EXAMPLE: NORWAY

National Constitution (1814)

[…]

Article 112. Every person has the right to an environment that is conducive to health and to a natural environment whose productivity and diversity are maintained. Natural resources shall be managed on the basis of comprehensive long-term considerations that will safeguard this right for future generations as well.

In order to safeguard their right in accordance with the foregoing paragraph, citizens are entitled to information on the state of the natural environment and on the effects of any encroachment on nature that is planned or carried out.

The authorities of the State shall take measures for the implementation of these principles.

[…]

The rights of nature is a legal theory that posits that the natural world, including ecosystems and species, possesses intrinsic and inalienable rights in the same way that humans have fundamental rights. The theory represents a paradigm shift in the way humans interact with the environment, moving away from the traditional anthropocentric approach that regards nature merely as property or a resource to be exploited for human benefit towards perspectives that recognize the inherent value and rights of nature. This recognition elevates the status of the natural world to a legal and ethical standing that requires more than mere stewardship or conservation efforts. It acknowledges that ecosystems and species have their own value and purpose, independent of their utility to humans, and that they have a right to exist and thrive.

States' legislation, including legislation for combating pollution crime, must respect all applicable constitutional rights.

LEGISLATIVE EXAMPLE: ECUADOR

National Constitution (2008)

[…]

Chapter 7. Rights of nature

Article 71. Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes.

All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature. To enforce and interpret these rights, the principles set forth in the Constitution shall be observed, as appropriate.

[…]

Article 72. Nature has the right to be restored. This restoration shall be separate from the obligation of the State and natural persons or legal entities to compensate individuals and communities that depend on affected natural systems.

[…]

LEGISLATIVE EXAMPLE: UGANDA

National Environment Act (2019)

[…]

4. Rights of nature

Nature has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution.

A person has a right to bring an action before a competent court for any infringement of rights of nature under this Act.

Government shall apply precaution and restriction measures in all activities that can lead to the extinction of species, the destruction of the ecosystems or the permanent alteration of the natural cycles.

The Minister shall, by regulations, prescribe the conservation areas for which the rights in subsection (1) apply.

[…]

LEGAL PERSONHOOD OF THE WHANGANUI RIVER IN NEW ZEALAND

In 2017, the Parliament of New Zealand passed the Te Awa Tupua (Whanganui River Claims Settlement) Act, which granted the Whanganui River legal personhood. The legislation marked a significant development, recognizing the river as a legal entity with its own rights and interests.

The legal framework established the river as an indivisible and living entity, represented by both the Crown and representatives of the Whanganui Iwi (local Maori tribe) in a guardianship capacity. The recognition of the river as a legal person was aimed at ensuring its protection, preservation and holistic well-being while also respecting its cultural significance to the Whanganui Iwi.

The legal recognition granted to the Whanganui River demonstrated a ground-breaking approach, acknowledging the spiritual, cultural and environmental significance of the river to the local Indigenous communities and setting a precedent for the consideration of the rights of natural entities in legal frameworks. This legal approach may also lead to a new framework for environmental conservation that incorporates both Western and Indigenous perspectives.

Environmental authorizations

Environmental authorizations, in the context of polluting activities, are legal documents, such as permits and licences, issued by a competent government authority that grant individuals, businesses or organizations the permission to undertake specific activities that may pollute the environment. Typically, the more environmentally sensitive an activity or project is, the more likely it is to require environmental authorization from a competent agency. For example, in the realm of water pollution, large industrial or municipal wastewater treatment plants that discharge effluents into water bodies are typically subject to strict environmental authorizations. The authorizations specify limits on the concentration of pollutant that can be discharged, with regard to biological oxygen demand, chemical oxygen demand and various contaminants. Industries that release industrial effluents into rivers, lakes or coastal waters are often required to obtain environmental authorizations. The permits define the allowable pollutant discharges and specify monitoring and reporting requirements.

Environmental authorization systems are closely linked to legislation addressing pollution crime and play a key role in delineating when certain conduct is authorized and when it is not, in which case it may constitute a crime. Many of the criminal offences contained in the model legislative provisions in this guide include a reference to the finding that the defendant's conduct lacked the relevant environmental authorization or was in contravention of the conditions of such an authorization.

Environmental impact assessments

Pollution control systems are underpinned by the requirement to conduct environmental impact assessments. Such assessments are systematic and comprehensive processes used to evaluate the potential environmental impacts of an activity in order to inform decision-making. They play an important role in identifying, evaluating and mitigating the environmental impacts of various projects, policies and activities that have the potential to generate pollution, and in ensuring compliance with prescribed environmental standards at the national, provincial or local level. They are often mandatory for obtaining environmental authorizations under environmental protection laws and regulations.

In many national contexts, environmental impact assessments provide opportunities for public participation, allowing communities and stakeholders to express concerns about pollution and suggest mitigation strategies.[84] Such public input can lead to more effective pollution control measures and contribute to the long-term protection of the environment by considering not only immediate pollution control measures but also the sustainability and resilience of ecosystems over time.

[84] In this context, a specific type of environmental impact assessment known as an environmental and social impact assessment may be used. This type of assessment not only assesses the environmental aspects of a project but also includes consideration of a range of potential social consequences on communities, covering aspects such as community well-being, cultural heritage, human health and livelihoods.

LEGISLATIVE EXAMPLE: ARGENTINA

Environment Act (2002)

[…]

Article 11. Any work or activity that, in the territory of the Nation, is likely to degrade the environment or any of its components or affect the quality of life of the population in a significant way shall be subject to an evaluation of its environmental impact prior to its execution.

Article 12. A natural or legal person shall initiate the procedure by submitting a sworn declaration stating whether the work or activity will have an impact on the environment. The competent authorities will decide on the need for an environmental impact study, the requirements of which shall be detailed in a specific law. Subsequently, they shall carry out an environmental impact evaluation and issue an environmental impact statement approving or rejecting the studies presented.

Article 13. Environmental impact studies must contain, at a minimum, a detailed description of the work or activity to be carried out, the expected impact on the environment and the action intended to mitigate any negative effects.

[…]

Environmental impact assessments are often used alongside strategic environmental assessments, with the former focusing on individual projects and the latter covering examination of broader strategies and plans, often at the regional or national level.[85] Strategic environmental assessments are comprehensive and include an analysis of indirect and cumulative effects of multiple projects and policies within a given area or sector. Both types of assessment effectively promote sustainable development by mainstreaming environmental considerations into economic development.

LEGISLATIVE EXAMPLE: UNITED REPUBLIC OF TANZANIA

Environmental Management Act (2004)

[…]

Part VII. Strategic environmental assessment

104. (1) It shall be a requirement when preparing a Bill for enactment of any law that is likely to have effect on

(a) the management, conservation and enhancement of the environment; or

(b) sustainable management of natural resources;

to conduct and submit to the Minister a detailed statement regarding Strategic Environmental Assessment of the effect likely to be caused on the environment in the implementation of the provisions of that law.

(2) Without prejudice to subsection (1), when promulgating regulations, public policies, programmes and development plans shall include a Strategic Environmental Assessment Statement on the likely effects of such regulations, public policies, programmes or development plans may have on the environment.

[…]

[85] Organisation for Economic Co-operation and Development (OECD), *Applying Strategic Environmental Assessment: Good Practice Guidance for Development Co-operation*, Development Assistance Committee Guidelines and Reference Series (Paris, 2006).

Schedules and classifications

Schedules and classifications are cited in relevant legislative provisions as a shorthand for referring to specific categories listed therein. They are employed to provide details that cannot be easily addressed in full in the main body of the legislation. This makes legislation not only easier to read but also more convenient to revise and update.

International agreements play a crucial role in maintaining schedules of substances for purposes of controlling pollution, thus promoting global cooperation and harmonizing efforts to address environmental and public health challenges associated with various pollutants. Examples of such international agreements include the Stockholm Convention, which is aimed at eliminating or restricting the production and use of persistent organic pollutants that pose a global threat; the Montreal Protocol, which is aimed at phasing out the use of ozone-depleting substances; and the Kigali Amendment to the Montreal Protocol, which provides for the phase-down of hydrofluorocarbons, which have been used as replacements for ozone-depleting substances eliminated by the Montreal Protocol. All the aforementioned legal instruments provide valuable models for using schedules of substances for controlling pollution on a global scale.

At the domestic level, States can use schedules or lists of pollutants for regulating pollution of air, water and land. For instance, States establish schedules of greenhouse gases and set specific emission limits for each of them. Those limits specify the maximum amount of a pollutant that a facility or industry can release into the environment over a defined period. Water pollutants may also be classified on the basis of their properties, sources and environmental impacts. Such an approach helps tailor regulatory measures, mitigation efforts and remediation plans in order to address the specific challenges posed by different types of pollutant. States often maintain lists of hazardous waste materials, including chemicals and substances that can pose a risk to human health and the environment. Such lists help regulate the disposal, treatment and transport of hazardous wastes.[86]

The model legislative provisions contained in this guide relating to unlawful production and handling of pollutants and trafficking in pollutants make use of references to schedules or classifications for determining the scope of pollutants to which they apply.

Schedules of environmentally protected areas also play a critical role in the protection of specific conservation areas from pollution. The schedules detail the rules and regulations that govern human activities within protected areas. The rules often vary depending on the type of area and its specific conservation goals, and can include restrictions on, for example, industrial activities, hunting, logging and fishing. The International Union for Conservation of Nature defines a "protected area" as a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.[87] Schedules of protected areas are a fundamental component of environmental and conservation management. Although they may not directly regulate pollution themselves, they play a crucial role in the broader regulatory framework for pollution control.

In relation to pollution crime, schedules of protected areas may be used in establishing offences related to conduct in protected areas or as a relevant aggravating factor for consideration in sentencing.[88]

Schedules may be listed in primary legislative instruments, such as statutes, and expanded in subordinate legislative instruments, such as regulations. Subordinate legislation has the advantage of being easier to amend and can provide additional flexibility. In this way, schedules become an integral part of the legislative instruments to which they relate, and they draw their legal force from references contained in substantive provisions in the main body of the legislation. Such an approach allows lawmakers to maintain clarity and conciseness in the main body of the legislation while still accommodating the need for comprehensive regulations and guidelines. Setting out the relevant schedules and classifications in regulations or other subordinate legislative

[86] UNODC, *Combating Waste Trafficking: A Guide to Good Legislative Practices* (Vienna, 2022), pp. 32 and 33.

[87] International Union for Conservation of Nature, *Guidelines for Applying Protected Area Management Categories* (2008), p. 8

[88] See chapter VII for information on aggravating and mitigating factors.

instruments may therefore enable States to react more readily to such changes. Where Governments adopt schedules and classifications, they should align all applicable processes for amending those schedules and classifications with the principle of legality, ensuring they are clear, non-retroactive, accessible and consistent with the legal framework.

LEGISLATIVE EXAMPLE: EUROPEAN UNION

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

[…]

Article 2. Definitions

[…]

31. "Pollutant" means any substance liable to cause pollution, in particular those listed in annex VIII.

[…]

ANNEX VIII

Indicative list of the main pollutants

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment.

2. Organophosphorous compounds.

3. Organotin compounds.

4. Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment.

5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances.

6. Cyanides.

7. Metals and their compounds.

8. Arsenic and its compounds.

9. Biocides and plant protection products.

10. Materials in suspension.

11. Substances which contribute to eutrophication (in particular, nitrates and phosphates).

12. Substances which have an unfavourable influence on the oxygen balance (and can be measured using parameters such as biochemical oxygen demand, chemical oxygen demand, etc.).

[…]

Emissions trading systems and pollution taxes

Emissions trading systems, also known as emissions trading schemes or cap-and-trade systems, are some of the most popular market-based approaches to controlling pollution, in particular emissions of greenhouse gases. Such systems are designed to provide economic incentives for entities to reduce their emissions efficiently while ensuring that overall emissions targets are met.

At the heart of an emissions trading system lies an emissions cap, a predetermined maximum level of a specific pollutant or group of pollutants that a given region or State is willing to tolerate over a defined time frame. The cap is not arbitrarily set; rather, it reflects the environmental and policy objectives for emissions reduction. The cap is then subdivided into emission allowances, each representing a specific quantity of the targeted

pollutant. The allowances can be allocated to or auctioned among regulated entities, namely entities within sectors that are considered significant sources of emissions, such as power plants and industrial facilities. Entities that have reduced their emissions to levels below their assigned targets and possess surplus allowances can sell those allowances to other entities that require additional allowances to meet their compliance obligations. Trading allows flexibility and cost-effectiveness in achieving emissions reductions, as entities can choose between reducing emissions internally or purchasing allowances on the market. If, collectively, entities successfully reduce their emissions, the price of allowances may rise, offering economic incentives for further reductions and the adoption of cleaner technologies.

Emissions allowances, while a valuable tool in emissions trading systems and regulatory frameworks for controlling greenhouse gas emissions, have several limitations. Emissions allowance prices can be subject to significant volatility, which can make it difficult for businesses to plan and budget for compliance costs. Emissions markets can also be vulnerable to market manipulation and speculative trading, which can distort allowance prices and affect the integrity of the trading system. The distribution of allowances can sometimes favour certain industries or entities, leading to concerns about social and economic equity.[89] The phenomenon known as "carbon leakage" may also occur when businesses relocate to regions with less stringent emissions regulations to avoid compliance costs. This can result in emissions shifting rather than reducing overall. Such limitations highlight the importance of careful design, monitoring and adjustment of emissions trading systems to ensure they effectively achieve their environmental goals.

EUROPEAN UNION EMISSIONS TRADING SYSTEM

The European Union Emissions Trading System is one of the world's most prominent and comprehensive cap-and-trade programmes aimed at mitigating greenhouse gas emissions. Established in 2005, it covers the 27 European Union member States and the European Economic Area, making it a far-reaching and influential environmental programme. The System covers various sectors, including energy production, heavy industry, aviation and maritime transport.[a] It targets six main greenhouse gases, with carbon dioxide being the primary focus.[b] It also sets an overall cap on the total amount of greenhouse gas emissions allowed within the sectors covered. The cap decreases over time, aligning with the goal of the European Union to reduce net emissions by at least 55 per cent by 2030 compared with 1990 levels.

Under the System, emission allowances are allocated or auctioned to regulated entities. Those entities include power plants, industrial facilities and other significant emitters. Each allowance represents the right to emit one ton of carbon dioxide or iwts equivalent in other greenhouse gases. Regulated entities can trade their allowances in the carbon market, which allows entities that can reduce emissions in a cost-effective way to sell their excess allowances to entities facing higher compliance costs.

Regulated entities must demonstrate compliance with their reduction targets by holding sufficient allowances to cover their emissions. Failure to comply results in penalties or fines, making adherence to the emissions cap a financial imperative.

Each member State designates a national competent authority responsible for implementing and overseeing the System within its jurisdiction. Those authorities work together with the European Commission to ensure that the programme's rules and regulations are enforced effectively. They also play a pivotal role in conducting compliance checks and addressing non-compliance issues at the national level.[c]

[a] Since January 2024, the European Union Emissions Trading System has been extended to cover carbon dioxide emissions from large ships (of 5,000 gross tonnage and above) entering ports in the European Union, regardless of the flag they fly. (See European Commission, "Reducing emissions from the shipping sector". Available at https://climate.ec.europa.eu).

[b] Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

[c] European Commission, "What is the EU ETS?". Available at https://climate.ec.europa.eu/.

[89] Simon Caney and Cameron Hepburn, "Carbon trading: unethical, unjust and ineffective?", Centre for Climate Change Economics and Policy Working Paper, No.59 and Grantham Research Institute on Climate Change and the Environment Working Paper, No.49 (2011).

Governments may, in addition to emissions trading, adopt an alternative approach to controlling pollutant emissions through the imposition of fees or taxes. Unlike cap-and-trade systems, where emissions are capped and allowances are traded, pollution taxes operate by placing a price on each unit of pollutant emitted, directly linking the cost of pollution to the emissions released. Entities that release pollutants into the environment are required to pay a fee or tax based on the quantity of emissions they produce or effluents they release. Pollution taxes serve a dual purpose. Firstly, they penalize higher emissions by imposing higher costs on entities that release larger quantities of pollutants. Secondly, they provide a financial incentive for entities to reduce their pollution emissions, thereby reducing their financial liability and operational costs. A pollution tax is therefore generally considered to be a market-based approach to pollution control, similar to emissions trading systems, because it is aimed at encouraging businesses and individuals to reduce pollution by making it more expensive to pollute.

Emissions trading systems and pollution taxes are of relevance to legislation addressing pollution crime both because they may form part of broader national policy, legal and regulatory frameworks, and because they may provide incentives or opportunities for criminals, such as for carbon credit fraud, money-laundering and corruption. Likewise, tax fraud may be associated with emissions trading systems and pollution taxes.

NATIONAL INSTITUTIONAL FRAMEWORK

Although it should be noted that this guide is a legislative guide rather than a guide for national institution-building, the two topics cannot entirely be separated from one another. Legislation is necessary for government institutions to be created and carry out their functions in line with the rule of law. Even the most well-drafted laws will be powerless to achieve their goals if they are not supported by an effective national institutional framework.

For practical reasons, the scope of this guide is limited, with a focus on substantive legislation for addressing pollution crimes. No attempt is made to provide comprehensive guidance on building effective national institutions for preventing and combating such crimes. Nevertheless, as the topics are interwoven, the guide does include information regarding the issue of national institution-building.

This section provides an overview of the types of responsibility and power that need to be allocated to national institutions in order to counter pollution crimes. It also provides a brief overview of the most common institutions in which such powers and responsibilities are vested. Subsequent chapters of the guide provide model legislative provisions establishing relevant powers and responsibilities, such as those relating to investigation, international cooperation, prosecution and sentencing.

Responsibilities and powers

National authorities involved in the prevention, investigation, prosecution and adjudication of pollution crimes should be provided with clear roles and responsibilities, avoiding contradictions or overlap, and with appropriate powers for fulfilling those mandates. The following is a non-exhaustive list of responsibilities and powers relating to preventing and combating pollution crimes that should be delegated to relevant departments, agencies and public officers:

(a) Promulgating and amending subordinate or delegated legislation (e.g. regulations) concerning pollution;

(b) Issuing environmental authorizations and adopting appropriate regulatory frameworks in relation to admissible pollution activity;

(c) Monitoring and evaluating the implementation of environmental laws and regulations;

(d) Collecting, reporting and analysing relevant data and samples;

(e) Investigating, prosecuting and adjudicating breaches of environmental laws and regulations;

(f) Imposing sanctions in cases of breach, and monitoring the implementation of sanctions;

(g) Cooperating with foreign law enforcement agencies and other foreign authorities, as well as with relevant international and regional organizations;

(h) Raising awareness among non-governmental stakeholders and educating the general public about the impact of pollution.

The separation of certain powers, such as the separation of judicial powers of adjudication from the exercise of executive and administrative powers, is essential for upholding the independence of the judiciary and may be required by national constitutions. This principle is emphasized in the Basic Principles on the Independence of the Judiciary and endorsed by General Assembly resolutions 40/32 and 40/146. Within different branches of government, responsibilities and powers will also necessarily be vested in different departments, agencies and public officers, allowing them to develop specialized competencies and expertise and therefore carry out their functions more effectively.

Chapter II.

GENERAL PROVISIONS

Having addressed some of the key considerations of broader relevance to drafting legislation for combating pollution crimes, the guide now turns to considering the legislative provisions that may be included in such legislation. This chapter covers a number of general provisions of broad relevance to all measures discussed in this guide, namely statements of principles of environmental law, definitions and jurisdiction.

STATEMENT OF PRINCIPLES OF ENVIRONMENTAL LAW

In chapter I, it was noted that international environmental law recognizes a number of general principles of relevance to the development and amendment of legislation for combating pollution. The general principles of international environmental law include the principle of prevention, the precautionary principle, the "polluter pays" principle and the principle of public participation.

Although international environmental law does not generally require that States restate those principles under domestic law as long as States fulfil the substance of their obligations under binding principles of international environmental law, the statement of relevant principles in national legislation is a useful tool for ensuring the effective implementation of environmental legislation, including legislation for combating pollution crime. Stating the overarching principles that underpin legislation combating pollution can assist in the interpretation and implementation of such legislation, not only by the judiciary but also by relevant stakeholders. References to relevant principles of international environmental law could be included, as appropriate, in the preamble or operative part of relevant legislation.

LEGISLATIVE EXAMPLE: ZAMBIA

The Environmental Management Act (2011)

[…]

Section 6. Principles governing environmental management

The following principles shall be applied in achieving the purpose of this Act:

(a) the environment is the common heritage of present and future generations;

(b) adverse effects shall be prevented and minimized through long-term integrated planning and the coordination, integration and cooperation of efforts, which consider the entire environment as a whole entity;

(c) the precautionary principle;

(d) the "polluter pays" principle;

(e) equitable access to environmental resources shall be promoted and the functional integrity of ecosystems shall be taken into account to ensure the sustainability of the ecosystems and to prevent adverse effects;

(f) the people shall be involved in the development of policies, plans and programmes for environmental management;

(g) the citizen shall have access to environmental information to enable the citizen to make informed personal choices which encourages improved performance by industry and the Government;

(h) the generation of waste should be minimized, wherever practicable, and waste should, in order of priority, be reused, recycled, recovered and disposed of safely in a manner that avoids creating adverse effects;

(i) the environment is vital to people's livelihood and shall be used sustainably in order to achieve poverty reduction and socioeconomic development;

(j) non-renewable natural resources shall be used prudently, taking into account the needs for the present and future generations;

(k) renewable natural resources shall be used in a manner that is sustainable and does not prejudice their viability and integrity;

(l) community participation and involvement in natural resources management and the sharing of benefits arising from the use of the resources shall be promoted and facilitated; and

(m) low carbon emissions, resource efficiency and social inclusiveness shall be integrated in development programmes.

[…]

DEFINITIONS

Model legislative provision 1 sets out definitions for certain key terms used in the model legislative provisions contained in this guide.[90] Where key terms requiring definition have been used in only one model provision in this guide, the definition has been included directly in the relevant provision and a cross reference to that definition included in model legislative provision 1.

Legislative drafters should ensure that the terminology used is clear, precise and used consistently. The terms used in this guide, as well as their definitions, should be adapted to the needs of each State, ensuring coherence with the existing legislative framework.

[90] The definition of "environmental harm" has been adapted from the definition of "air pollution" in the Convention on Long-range Transboundary Air Pollution, art. 1 (a). The definitions of "[confiscation/forfeiture]", "organized criminal group", "proceeds of crime" and "serious crime" have been adapted from article 2 of the Organized Crime Convention.

MODEL LEGISLATIVE PROVISION 1: DEFINITIONS

For the purpose of this [Act/Law/Chapter …]:

"assumed identity" shall have the meaning given to it in [*insert reference to model legislative provision 16*];

"[confiscation/forfeiture]" shall mean the permanent deprivation of property by order of the [*insert reference to relevant court or other competent authority*];

"controlled delivery" shall have the meaning given to it in [*insert reference to model legislative provision 14*];

"electronic surveillance" shall have the meaning given to it in [*insert reference to model legislative provision 18*];

"environment" shall mean the natural and human-made surroundings in which people, animals, plants and natural systems exist, including air, water, land, ecosystems, biodiversity and natural resources, as well as the interactions between them;

"environmental harm" shall mean a deleterious effect of such a nature as to endanger human health, harm living resources and ecosystems, and impair or interfere with amenities and other legitimate uses of the environment;

"financial or other material benefit" shall mean any type of financial or non-financial inducement, payment, bribe, reward or other advantage, including services;

"legal persons" shall have the meaning given to it in [*insert reference to model legislative provision 13*];

"organized criminal group" shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more offences to which this [Act/Law/Chapter …] applies, in order to obtain, directly or indirectly, a financial or other material benefit;

"person" shall mean a natural or legal person;

"person cooperating with law enforcement authorities" shall have the meaning given to it in [*insert reference to model legislative provision 27*];

"pollutant" shall mean any material or substance, energy or ionizing radiation, which, when discharged, emitted, released, introduced or deposited, causes or is likely to cause harm to any person, animal, plant or ecosystem;

"pollution" shall mean the discharge, emission, release or introduction of a pollutant;

"proceeds of crime" shall mean any property derived, in whole or in part, from, or obtained, directly or indirectly, through, the commission of an offence, whether committed within or outside the territory of [*insert name of State*];

"produce" shall have the meaning given to it in [*insert reference to model legislative provision 4*];

"seize" shall have the meaning given to it in [*insert reference to model legislative provision 19*];

"senior officer" shall have the meaning given to it in [*insert reference to model legislative provision 13*];

"serious crime" shall mean an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty;

"surveillance of persons" shall have the meaning given to it in [*insert reference to model legislative provision 17*];

"undercover investigation" shall have the meaning given to it in [*insert reference to model legislative provision 14*];

"victims" shall have the meaning given to it in [*insert reference to model legislative provision 28*];

"witness" shall have the meaning given to it in [*insert reference to model legislative provision 27*].

JURISDICTION

Jurisdiction is a fundamental precondition for the prosecution of offences. It refers to the power of a State to exercise legal authority over a territory, person or thing. Whereas jurisdiction is principally territorial, in the sense that States mostly prosecute offences that occur within their own territorial boundaries, in some cases it may be exercised extraterritorially. International law recognizes several bases for extraterritorial jurisdiction, including where offences are committed on vessels flying a State's flag at sea and where a State's own nationals commit offences outside its territory.

Establishing forms of extraterritorial jurisdiction is particularly important in the context of pollution crimes, since the phenomenon may occur across State borders and on the high seas. Organized criminal groups in one State may, for example, create unauthorized pollution that affects victims in another State, or operate maritime vessels that leak pollutants into the ocean on the high seas. Pollutants can also be moved across borders, while the illicit gains produced by pollution crimes may be laundered overseas. Offenders may also move between States and exploit jurisdictional gaps in national laws to avoid apprehension and prosecution. Pollution offences can occur across the jurisdiction of multiple States, raising issues as to which State is to exercise its enforcement powers over an offender. This issue is especially relevant in complex and large-scale cases, where there are often many actors involved in different countries, which makes it difficult to decide who is ultimately culpable and which country and authority has jurisdiction for enforcement.[91]

Article 15 of the Organized Crime Convention sets out a range of provisions on jurisdiction.[92] Paragraph 1 allows States parties to establish jurisdiction over Convention offences committed within their own territories, flag vessels and aircraft registered under their laws. Paragraph 2 reflects the active personality, passive personality, objective territorial and protective principles, and allows States parties to establish jurisdiction over their own nationals and acts injurious to their nationals outside their territory, as well as over certain offences committed outside the State with a view to commission of a further offence in its territory. Paragraph 3 embodies the principle of *aut dedere aut judicare* (extradite or prosecute), under which a State party is required to establish jurisdiction over offenders in its territory where it refuses extradition solely on the ground that the offender is its national. Paragraph 4, which is not mandatory, proposes jurisdiction over offences where the offender is not extradited on any ground, and paragraph 6 specifies that the Convention does not exclude the exercise of any criminal jurisdiction established by a State party in accordance with its domestic law. Under paragraph 5, States exercising jurisdiction over conduct pursuant to paragraphs 1 or 2 are required to consult and coordinate with other States as appropriate, where those States are also investigating, prosecuting or conducting judicial proceedings in relation to the same conduct.

The text of model legislative provision 2 closely follows the obligations in article 15 of the Organized Crime Convention and specifies jurisdiction territorially and in line with the specified bases of extraterritorial jurisdiction. Paragraph 2 (d) of the model provision, which has no equivalent in the Convention, suggests a form of "effects" jurisdiction in cases where extraterritorial offences create a severe risk for the environment in the territory of the State in question.[93] This proposed provision reflects the fact that pollution offences may cause significant harm far beyond the place where they are committed. Paragraph 2 (e) further provides a basis for the judicial determination of cases for which jurisdiction has been conferred by an international agreement that is binding on the State. This may also include decisions of the Security Council.

[91] Karin van Wingerde, "The limits of environmental regulation in a globalized economy: lessons from the *Probo Koala* case" in *The Routledge Handbook of White-collar and Corporate Crime in Europe*, Judith van Erp, Wim Huisman and Gudrun Vande Walle, eds. (Abingdon, United Kingdom, Routledge, 2015), pp. 260 and 267.

[92] See Bettina Weißer, "United Nations Convention against Transnational Organized Crime: Article 15: jurisdiction" in *UN Convention against Transnational Organized Crime: A Commentary*, Andreas Schloenhardt and others, eds. (Oxford, Oxford University Press, 2023).

[93] On the effects of jurisdictions and transnational crime, see Neil Boister, *An Introduction to Transnational Criminal Law*, 2nd ed. (Oxford, Oxford University Press, 2018), p. 255.

Although it may be possible for States to establish further bases for jurisdiction for certain offences beyond those envisaged in the Organized Crime Convention,[94] States parties to the Convention are required to comply with the conditions set out in its article 4. Those conditions call on States parties to act in a manner consistent with the principles of sovereign equality and territorial integrity of States and that of non-intervention in the domestic affairs of other States when carrying out obligations under the Convention. Furthermore, nothing in the Convention entitles a State party to undertake in the territory of another State the exercise of jurisdiction and performance of functions that are reserved exclusively for the authorities of that other State by its domestic law.

MODEL LEGISLATIVE PROVISION 2: JURISDICTION

1. [*Insert reference to relevant court(s)*] shall have jurisdiction to determine proceedings for offences to which this [Act/Law/Chapter …] applies when:

(a) Committed [in whole or in part] within the territory of [*insert name of State*];

(b) Committed [in whole or in part] on board a vessel that is flying the flag of [*insert name of State*] or an aircraft that is registered under the laws of [*insert name of State*] at the time that the offence was committed;

(c) Committed by a [*insert name of State*] national present in [*insert name of State*] territory whose extradition is refused on the grounds of nationality; or

(d) Committed by a person present in [*insert name of State*] whose extradition is refused on any ground.

2. [*Insert reference to relevant court(s)*] shall also have jurisdiction to determine proceedings for offences committed outside the territory of [*insert name of State*] to which this [Act/Law/Chapter] applies when:

(a) The [victim/object of the crime] is a national [or permanent resident] [or habitual resident] of [*insert name of State*];

(b) The offence is committed by a national [or permanent resident] [or habitual resident] of [*insert name of State*] [or one of its legal persons];

(c) The offence is committed outside the territory of [*insert name of State*] with a view to the commission of a serious crime within the territory of [*insert name of State*];

(d) The offence has created a severe risk for the environment on the territory of [*insert name of State*]; or

(e) Such jurisdiction is based on an international agreement binding on [*insert name of State*].

[94] For discussion on the matter, see Fulvia Staiano, *Transnational Organized Crime: Challenging International Law Principles on State Jurisdiction* (Cheltenham, United Kingdom, Edward Elgar Publishing Limited, 2022) pp. 103–119. See also Boister, *An Introduction to Transnational Criminal Law* pp. 269 and 270.

LEGISLATIVE EXAMPLE: ESTONIA

Penal Code (2001)

[…]

Article 9. Applicability of penal law to acts against legal rights of Estonia

(1) Regardless of the law of the place of commission of an act, the penal law of Estonia applies to acts committed outside the territory of Estonia if according to the penal law of Estonia the act is a criminal offence in the first degree and if such act:

1) causes damage to the life or health of the population of Estonia;

2) interferes with the exercise of State authority or the defence capability of Estonia; or

3) causes damage to the environment.

(2) Regardless of the type of the offence, the penal law of Estonia applies to acts that damage the environment and were committed within the economic zone or on the high seas, in accordance with the requirements and rights of international maritime law established with respect to foreign vessels.

[…]

LEGISLATIVE EXAMPLE: SINGAPORE

Transboundary Haze Pollution Act (2014)

[…]

Extraterritorial application

4. This Act extends to and in relation to any conduct or thing outside Singapore which causes or contributes to any haze pollution in Singapore.

Offences for causing, etc., haze pollution in Singapore

5. (1) An entity shall be guilty of an offence if:

(a) the entity:

(i) engages in conduct (whether in or outside Singapore) which causes or contributes to any haze pollution in Singapore; or

(ii) engages in conduct (whether in or outside Singapore) that condones any conduct (whether in or outside Singapore) by another entity or individual which causes or contributes to any haze pollution in Singapore; and

(b) there is haze pollution in Singapore at or about the time of that conduct by that entity.

[…]

Chapter III.

OFFENCES AND LIABILITY

Chapter III covers the criminalization of pollution offences, beginning with consideration of the elements of criminal offences. This approach is intended to help users view the model criminal offences contained in the chapter in terms of their constituent elements rather than as predefined language that should be copied and pasted into domestic legislation. As noted in the introduction to the guide, States should adapt the model provisions contained herein to fit local conditions, constitutional principles, legal culture and structures and existing enforcement arrangements.

The chapter also discusses offences directly concerned with pollution, as well as related offences, namely offences facilitating the core activities of pollution. Lastly, it addresses questions related to the extension of liability (liability for attempt and secondary liability), liability of legal persons and defences.

The model legislative provisions in this chapter do not stipulate the applicable penalty for each offence, as determination of the appropriate penalties is the responsibility of each State, in accordance with that State's legal system and culture. For most of the offences, criminal liability may be appropriate. In certain cases, however, States may wish to opt for civil or administrative liability. The way that penalties are structured within a given law is also a decision to be made by the individual State. Some States may elect to include the penalty applicable to each offence within the provision that establishes that offence. Other States may decide to set out the applicable penalties for each offence within a special penalties provision, separate from the provisions regarding the offences themselves.

ELEMENTS OF CRIMINAL OFFENCES

All criminal offences are constructed from a set of building blocks generally referred to as "elements". Proof of the elements of an offence render a person charged with it liable to the penalty for that offence upon conviction. While the exact terminology varies across legal systems, every element of an offence falls into one of two categories: physical or mental.

The physical elements of an offence (referred to as *actus reus* in some jurisdictions) relate to the external, physical features of the criminality in question. They may include any one or more of the following: conduct of the accused (which may be an act, omission or a particular state of being), an event that occurs as a result of the accused's conduct, and circumstances in which the conduct or event takes place. Every criminal offence

has different physical elements and it is impossible to catalogue every type of conduct, circumstance or result that might constitute the *actus reus* of a crime.[95]

The mental elements of an offence (referred to as *mens rea* in some jurisdictions) relate to the accused person's state of mind at the time of the offence. Although proof of a corresponding mental element is often required in respect of each physical element of the offence, this is not always the case. Some offences have multiple physical elements but only one mental element, some offences have mental elements that do not correspond to a physical element, and some offences only comprise physical elements. Offences in the last category are referred to in some jurisdictions as "strict liability", or "absolute liability", offences, where liability is not only without fault but also without the possibility of defences such as reasonable mistake of fact.

The types of mental element recognized in the criminal laws of various States and the terms used to describe specific states of mind vary significantly. As a result, it is difficult to generalize regarding mental elements across the spectrum of legal traditions and legal systems. It can, however, be said that mental elements generally require intention to bring about a certain result or for an event to occur owing to a person acting in a certain way, having knowledge of certain circumstances or consequences, or displaying recklessness given the risk that an event will occur. In some cases, mental elements may also require an objective assessment of what an accused should have known or foreseen (as opposed to a subjective inquiry into the person's actual state of mind). This is commonly referred to as negligence, an element sometimes qualified with terms such as "criminal", "serious" or "gross".

Mental elements can be placed on a scale according to the degree of fault that they entail. At the upper end of the scale are elements that require a subjective assessment of what an accused actually intended or knew, whereas at the lower end are elements for which it is only necessary to consider objectively what an accused should have foreseen (that is, negligence). In general, offences that attract harsher penalties will require proof of more stringent mental elements. Offences subject to strict liability, where there is no mental element, tend to have the lowest penalties.

Unless otherwise specified, the present guide assumes that proof of a mental element or elements equivalent to intention or, in some jurisdictions, knowledge is to be required for a conviction of the offences covered herein. As the wording used for mental elements varies from State to State in accordance with legal traditions, no position is adopted on the wording States should use to establish the requirement of proof of the requisite mental state, and therefore the phrase "insert reference to the requisite mental state" is included in square brackets, emphasizing that legislative drafters should use the appropriate wording for their jurisdiction.

States may consider adopting stricter measures and allow proof of lesser mental elements, such as recklessness and negligence, for certain offences. Under article 34 (3) of the Organized Crime Convention, each State party may adopt stricter or more severe measures than those provided for by the Convention. Although lowering the requisite mental elements for an offence broadens potential liability and makes the offence easier to prove, States should exercise caution in lowering the threshold for serious offences given the stigma and harmful consequences that commonly accompany convictions for such crimes. Moreover, in some legal systems, the removal of the requisite mental element to create offences of strict liability is only permissible in specific circumstances. Some States may wish to reserve less stringent mental elements for civil and administrative offences.

No position is taken in this guide on the form of mental element used for pollution crimes. It is noted that the widely acknowledged difficulties of investigating and prosecuting pollution crimes, and environmental crimes more generally, may encourage the use of strict liability, in particular for offences that do not attract the most serious penalties. A legislative example providing for strict liability is given below; it is worth noting that the offences include discharging any waste or polluting matter into the water in a water control zone or any matter into a communal sewer or communal drain in a water control zone, subject to various limitations.

[95] David Ormerod and Karl Laird, *Smith and Hogan's Criminal Law*, 14th ed. (Oxford, Oxford University Press, 2015), pp. 51 and 52.

LEGISLATIVE EXAMPLE: HONG KONG SPECIAL ADMINISTRATIVE REGION OF CHINA

Water Pollution Control Ordinance (1980)

[…]

10. Mental ingredient of offences under sections 8 and 9

In any proceedings for an offence under section 8(1), 8(1A), 8(2), 9(1) or 9(2) in which it is alleged that the defendant caused matter to enter the waters of Hong Kong or inland waters or a communal sewer or communal drain or caused matter to be deposited as provided in section 2(3) it shall not be necessary for the prosecution to prove that the acts or omissions in question were accompanied by any intention, knowledge or negligence on the part of the defendant as to any element of the offence.

[…]

POLLUTION OFFENCES

This section contains four types of offences relating to pollution: unlawful discharge, emission, release or introduction of a pollutant; unlawful production of a pollutant; trafficking in pollutants; and document fraud related to pollution.

Unlawful discharge, emission, release or introduction of pollutant

In order to establish a robust framework for the prevention and mitigation of pollution, it is imperative that the unlawful release of pollutants into the environment is comprehensively addressed and subject to legal sanctions within domestic legislation. Model legislative provision 3 provides an example of how this could be done. The text focuses on criminalizing human activities outside of the law that may pollute the environment.

MODEL LEGISLATIVE PROVISION 3: UNLAWFUL DISCHARGE, EMISSION, RELEASE OR INTRODUCTION OF POLLUTANT

Any person who:

(1) [*insert reference to the requisite mental state*] discharges, emits, releases or introduces a pollutant into air, soil or water, or who [*insert reference to the requisite mental state*] causes a pollutant to be discharged, emitted, released or introduced into air, soil or water; and

(2) Such discharge, emission, release or introduction:

(a) Causes or is likely to cause substantial harm to any person, animal, plant or ecosystem; and

(b) Is committed or caused:

(i) Without lawful authority where such authority is required by law;

(ii) Without a [*insert relevant term for environmental authorization, such as licence or permit*] granted by [*insert competent authority*];

(iii) Contravening the conditions of said [*insert relevant term for environmental authorization*]; or

(iv) In a manner that otherwise materially contravenes [*insert reference to relevant legislation*];

commits an offence punishable by [*insert maximum penalty*].

The conduct element of the offence in this model provision is the discharging, emitting, releasing or introducing of a pollutant into air, soil or water, or causing such discharge, emissions, release or introduction. Proof of one of the circumstance elements set out in subparagraphs (2) (b) (i) to (iv) is also required. Those subparagraphs ensure that criminalization excludes conduct undertaken with lawful authority or within the conditions of a lawfully granted environmental authorization. With respect to the mental element(s), if any, for the offence, as is noted above, this question is left to the legislator in question.

LEGISLATIVE EXAMPLE: ZAMBIA

The Environmental Management Act (2011)

[…]

Part IV. Environmental protection and pollution control

[…]

32. (1) A person shall not, without a licence, discharge, cause or permit the discharge of a contaminant or pollutant into the environment if that discharge causes, or is likely to cause, an adverse effect.

[…]

LEGISLATIVE EXAMPLE: UNITED REPUBLIC OF TANZANIA

Environmental Management Act (2004)

[…]

General prohibition of pollution

106. (1) It shall be an offence for any person to pollute or permit any other person to pollute the environment in violation of any standards prescribed under this Act or any other written law regulating a segment of the environment.

[…]

Offences relating to pollution

187. (1) Any person who

(a) discharges any dangerous materials, substances, oil, oil mixtures into land, water, air, or aquatic environment contrary to the provisions of this Act;

(b) pollutes the environment contrary to the provisions of this Act; or

(c) discharges any pollutant into the environment contrary to the provisions of this Act,

commits an offence.

[…]

LEGISLATIVE EXAMPLE: EUROPEAN UNION

Directive (EU) 2024/1203 of the European Parliament and of the Council of 11 April 2024 on the protection of the environment through criminal law and replacing Directives 2008/99/EC and 2009/123/EC

[…]

Article 3

Criminal offences

[…]

2. Member States shall ensure that the following conduct constitutes a criminal offence where it is unlawful and intentional:

(a) the discharge, emission or introduction of a quantity of materials or substances, energy or ionizing radiation, into air, soil or water which causes or is likely to cause the death of, or serious injury to, any person or substantial damage to the quality of air, soil or water, or substantial damage to an ecosystem, animals or plants;

[…]

Unlawful production of a pollutant

Certain pollutants, because of the risks they pose to the environment or human health, are not only prohibited from discharge, emission, release or introduction into the environment but are also prohibited or restricted from being produced under environmental legislation. The extent of restriction varies by pollutant, according to the legitimate uses of such material or substance, energy or ionizing radiation, or the activities that produce such pollutants, as well as specific control mechanisms.

Model legislative provision 4 addresses criminalization of the production of certain listed pollutants in violation of applicable environmental laws. The pollutants to which the offence applies are defined with reference to established schedules. The meaning of "produce" is defined inclusively in paragraph 2 of the provision. Exceptions to liability are included for conduct with lawful authority or within the scope of an applicable environmental authorization. Such matters as when lawful authority would be needed to produce certain pollutants, or when an environmental authorization may be granted and under what conditions, will need to be determined under applicable national environmental laws.

MODEL LEGISLATIVE PROVISION 4: UNLAWFUL PRODUCTION OF A POLLUTANT

1. Any person who [*insert reference to the requisite mental state*] produces a pollutant listed in [*insert reference to relevant schedule(s)*]:

(a) Without lawful authority where such authority is required by law;

(b) Without a [*insert relevant term for environmental authorization, such as licence or permit*] granted by [*insert competent authority*];

(c) In contravention of the conditions of any applicable [*insert relevant term for environmental authorization, such as licence or permit*] granted by [*insert competent authority*]; or

(d) In a manner that otherwise contravenes any standards prescribed under this [Act/Law/Chapter …] or [*insert reference to relevant legislation*];

commits an offence punishable by [*insert maximum penalty*].

2. For the purposes of this section, to "produce" a pollutant shall mean to create, synthesize or generate a pollutant, including as a byproduct of any industrial, agricultural, commercial or other activity.

LEGISLATIVE EXAMPLE: CANADA

Environmental Protection Act (1999)

[…]

Manufacture or import of living organisms

106. (1) Where a living organism is not specified on the Domestic Substances List, no person shall manufacture or import the living organism unless

(a) the prescribed information with respect to the living organism, accompanied by the prescribed fee, has been provided by that person to the Minister on or before the prescribed date;

[…]

Prohibition

117. No person shall manufacture for use or sale in Canada or import a cleaning product or water conditioner that contains a prescribed nutrient in a concentration greater than the permissible concentration prescribed for that product or conditioner.

[…]

LEGISLATIVE EXAMPLE: SINGAPORE

Environmental Protection and Management Act (1999)

[…]

General prohibition with respect to importation, manufacture and sale of hazardous substances

22. (1) A person must not import, manufacture, possess for sale, sell or offer for sale any hazardous substance unless the person holds a licence granted by the Director-General for that purpose.

(2) Every licence granted to any person under this section is not transferable to any other person and no licence may authorize the import, manufacture, possession for sale, sale or offer for sale of any hazardous substance by any individual other than the individual named in the licence.

(3) Any person who contravenes subsection (1) shall be guilty of an offence.

Prohibitions and regulations with respect to importation, manufacture and sale of hazardous substances

23. (1) A person must not import, manufacture, possess for sale, sell or offer for sale any hazardous substance unless:

(a) the importation, manufacture, possession for sale, sale or offer for sale is effected in accordance with the provisions of the licence and with any condition specified in the licence;

(b) the sale is effected by or under the personal supervision of the person named in the licence; and

(c) proper records of the sale as required by the Director-General are kept.

(2) A person must not possess for sale, sell or offer for sale any hazardous substance unless the container of the hazardous substance is labelled in the manner prescribed in regulations made by the Agency, with the approval of the Minister.

(3) Any person who contravenes subsection (1) or (2) shall be guilty of an offence.

Storage, use and dealing of hazardous substances

24. (1) Every person storing, using or otherwise dealing with any hazardous substance and every agent, servant or employee of such person must do so in such a manner as not to threaten the health or safety of any person, or to cause pollution of the environment.

(2) In any proceedings under this section, if any person is proved to have kept or had in the person's possession or under the person's control any hazardous substance, the person is presumed, until the contrary is proved, to have done so knowingly.

(3) Any person who contravenes subsection (1) shall be guilty of an offence.

[…]

LEGISLATIVE EXAMPLE: ZAMBIA

The Environmental Management Act (2011)

[…]

Part IV. Environmental protection and pollution control

Pollution control. Protection of atmosphere

31. (1) […]

(2) A person shall not, without a licence:

(a) conduct any activity that produces, or is likely to produce, a controlled substance or any other substance likely to deplete the ozone layer;

[…]

Trafficking in pollutants

Where production of, trade in or use of certain pollutants and other related activities are prohibited, restricted or regulated, organized criminal groups and other entities may have financial incentive for circumventing the law and engaging in illegal trade in pollutants. In the same way, when natural and legal persons are under obligations relating to the environmentally sound management and disposal of pollutants, they may have financial incentive for handling or disposing of such pollutants unlawfully.

In order to ensure the effectiveness of environmental legislation and regulations, criminal offences must be established to penalize those who seek to trade or dispose of pollutants in violation of such legal requirements.

Model provision 5 allows for criminalizing such conduct through the broad notion of trafficking in pollutants. In the same way as model provision 4, model provision 5 does not cover all possible pollutants but rather those listed in national legislative schedules. A broad range of acts in relation to such pollutants is criminalized, namely importing, exporting, re-exporting, dispatching, dispatching in transit, distributing, brokering, offering, keeping for offer, dealing, processing, purchasing, selling, supplying, storing and transporting, when carried out unlawfully. As with the other model legislative provisions in this section of the guide, unlawfulness is addressed by several different circumstances in subparagraphs of the model provision, which serve also to create exclusions for authorized conduct.

Some States may choose to adopt a narrower approach to the acts included in their definition of "trafficking" or may prefer to criminalize specific acts rather than instituting a general trafficking offence.

MODEL LEGISLATIVE PROVISION 5: TRAFFICKING IN POLLUTANTS

Any person who [*insert reference to the requisite mental state*] imports, exports, re-exports, dispatches, dispatches in transit, distributes, brokers, offers, keeps for offer, deals in, processes, purchases, sells, supplies, stores, stores in transit or transports a pollutant listed in [*insert relevant schedule(s)*]:

(a) Without lawful authority where such authority is required by law;

(b) Without a [*insert relevant term for environmental authorization, such as licence or permit*] granted by [*insert competent authority*];

(c) Contravening the conditions of said [*insert relevant term for environmental authorization*]; or

(d) In a manner that otherwise contravenes [*insert reference to relevant legislation*]

commits an offence punishable by [*insert maximum penalty*].

LEGISLATIVE EXAMPLE: ZAMBIA

The Environmental Management Act (2011)

[…]

Part IV. Environmental protection and pollution control

Pollution control. Protection of atmosphere

31. (1) […]

(2) A person shall not, without a licence:

(a) […]

(b) import, export, distribute, sell or offer for sale, handle, store, recover, recycle or reclaim a substance likely to deplete the ozone layer.

[…]

CASE STUDY: TRAFFICKING IN OZONE-DEPLETING SUBSTANCES

In the United States of America, the production and importation of ozone-depleting substances, including chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), are tightly regulated. The following cases, taken from the website of the United States Environmental Protection Agency, illustrate punishable activities involving trafficking in ozone-depleting substances:

- Case 1. The president of a refrigerant distribution company in Florida pleaded guilty to charges of illegally importing over 3.6 million kg of CFCs into the United States of America. For his role, the president was sentenced to 37 months in prison followed by three years of supervised release, fined $375,000, and ordered to forfeit over $13 million in assets. The company was sentenced to pay a fine of over $37 million and serve five years of probation. The company is also potentially liable for over $31 million in back taxes to the Internal Revenue Service. The company's bookkeeper and salesperson was also fined and received a probationary sentence, and the company's chief financial officer received a fine and a 30-day prison sentence.
- Case 2. Three men were arrested during two separate sting operations by undercover agents when they attempted to purchase CFCs being sold as illegal imports. One man was convicted on charges of making a false statement to the United States Customs Service and sentenced to six months of home detention, three years of probation and a $10,000 fine. He also forfeited $112,000 and personal possessions used in the crime, which were seized at the time of the arrest. The other two men were convicted on charges of conspiracy for violating the Clean Air Act. At the time of their arrest, $125,200 and a vehicle were seized and forfeited to the Government. Both men were sentenced to three years of probation and 240 hours of community service. One of the men was also fined $1,500.
- Case 3. The president of a Florida import company pleaded guilty in 2009 to three counts of knowingly importing illegal HCFC-22 in violation of the Clean Air Act. He was sentenced to 30 months of imprisonment, followed by three years of supervised release. The corporation was sentenced to five years of probation. A second defendant pleaded guilty to charges of making false statements and declarations on customs entry forms to disguise the illegal merchandise being imported. Both defendants were sentenced, jointly and severally, to pay a criminal fine of $40,000 and were further ordered to forfeit more than $1.3 million to the Government.

Source: United States Environmental Protection Agency, "Ozone-depleting substances on the black market", available at www.epa.gov/ozone-layer-protection/ozone-depleting-substances-black-market.

Document fraud related to pollution

Documentation relating to pollutants and polluting activities is critical to State authorities' capacity for regulating polluting activities and preventing and combating pollution crime. The foundation of regulatory systems is accurate and legally sound documentation, such as environmental authorizations, environmental impact assessments and documentation relating to emissions trading systems and pollution taxes. Authorities rely on such documentation for regulating and tracking the quantity and nature of pollutants released, monitoring adherence to emission limits and assessing the efficacy of pollution control measures.

Whereas the efficacy of regulatory systems related to pollution relies upon the accuracy and legitimacy of such documents, circumvention of regulatory systems is facilitated by document fraud. Individuals or entities involved in pollution may, for example, submit fraudulent compliance reports that misrepresent the true extent of their pollution. Such reports may understate the amount of pollutant released, or they may inaccurately claim that pollution control equipment is in place and operational. Companies involved in waste management or disposal may create fraudulent records to indicate that such actions were completed in an environmentally sound manner when, in reality, waste was dumped or otherwise improperly disposed of or managed. Fraudulent documents may also be used to hide the presence of toxic substances in products or materials. For instance, manufacturers may misrepresent the composition of products to avoid regulations on hazardous materials. Hazardous materials may be deliberately mislabelled to avoid stricter regulations or taxes, which could result in improper disposal or handling of those substances. In the context of carbon trading and offset markets, fraudulent activities may involve creating false carbon credits or offset projects for selling carbon credits that do not represent genuine emissions reductions. The outcomes of such fraudulent behaviour not only compromise the effectiveness of carbon offset mechanisms in combating climate change but can also perpetuate deceptive practices that undermine the credibility of environmental initiatives.

Model legislative provisions 6 and 7 define offences involving document fraud. Model provision 6 criminalizes the act of producing, offering, distributing, procuring, trading, exchanging, providing, selling, acquiring, buying, using or possessing a fraudulent document in connection with any activity regulated by the State's environmental legislation concerning pollution. Actors at every stage of the supply chain involving fraudulent documents are covered, from the producers and intermediaries through to the ultimate users or possessors. The model provision covers as well forgery and fraudulent alteration of permits and certificates. In order to achieve effective coverage by the provision, States should ensure that the term "document" is defined broadly under applicable national legislation. A document should be deemed fraudulent if any part of it is fraudulent.

MODEL LEGISLATIVE PROVISION 6: DOCUMENT FRAUD IN CONNECTION WITH POLLUTION

Any person who [*insert reference to the requisite mental state*] produces, offers, distributes, procures, trades, exchanges, provides, sells, acquires, buys, uses or possesses a fraudulent document in connection with any activity regulated by this [Act/Law/Chapter …] or [*insert reference to relevant legislation*] commits an offence punishable by [*insert maximum penalty*].

Falsifying documents or submitting false information in relation to an application for or the use of a licence, permit or certificate for managing waste should be considered an offence. Model legislative provision 7 establishes as a criminal offence intentionally making a false or misleading statement or representation, submitting a fraudulent document or omitting information or documentation in connection with any activity regulated by national pollution legislation.

In establishing such an offence, States should consider how purely accidental errors made in relevant documents or applications should be handled in legislation. One possibility is to set the applicable mental element of the offence to require a measure of fault, namely intention, knowledge, recklessness or negligence,

to exclude misrepresentations that are not made intentionally, knowingly, recklessly or negligently. Another possibility is to establish the offence as a strict liability offence but allow an absolute defence of honest and reasonable mistake of fact.

MODEL LEGISLATIVE PROVISION 7: FRAUDULENT CONDUCT IN CONNECTION WITH DOCUMENTS, RECORDS OR SAMPLES

Any person who [*insert reference to the requisite mental state*]:

(a) Makes a false or misleading statement or representation;

(b) Submits a fraudulent document; or

(c) Omits information or documentation required to be provided;

to [*insert competent authority or authorities*] in connection with any activity regulated by this [Act/Law/Chapter …] or [*insert reference to relevant legislation*] commits an offence punishable by [*insert maximum penalty*].

LEGISLATIVE EXAMPLE: CANADA

Environmental Protection Act (1999)

[…]

Offence — persons

272. (1) Every person commits an offence who:

[…]

(k) knowingly, with respect to any matter related to this Act or the regulations, provides any person with any false or misleading information, results or samples; or

(l) knowingly, with respect to any matter related to this Act or the regulations, files a document that contains false or misleading information.

[…]

LEGISLATIVE EXAMPLE: UNITED REPUBLIC OF TANZANIA

Environmental Management Act (2004)

[…]

Offences relating to environmental impact assessment

184. Any person who:

[…]

(c) fraudulently makes a false statement on an environmental impact assessment report submitted under this Act,

commits an offence […].

Offences relating to records

185. Any person who:

[…]

(b) fraudulently alters any records required by this Act,

commits an offence […].

[…]

LEGISLATIVE EXAMPLE: ZAMBIA

The Environmental Management Act (2011)

[…]

Offences relating to hazardous waste materials, chemicals

121. A person who:

[…]

(c) knowingly mislabels any waste, pesticide, chemical, toxic substance or radioactive substance;

[…]

(g) withholds information or provides false information about the management of hazardous wastes, chemicals or radioactive substances;

commits an offence […].

[…]

LEGISLATIVE EXAMPLE: SINGAPORE

Environmental Protection and Management Act (1999)

[…]

Data not to be falsified, etc.

40X. Any person that:

(a) makes any statement or declaration, or provides any document or information, to the Director-General or an authorized officer under this Part, knowing it to be false or misleading;

(b) falsifies any information or data required to be submitted to the Director-General or an authorized officer under this Part; or

(c) makes or causes to be made any entry or omission in any record, register or other document required to be kept under this Part, knowing it to be false or misleading, or makes any record containing a statement knowing it to be false or misleading,

shall be guilty of an offence […].

[…]

CASE STUDY: FRAUDULENT PESTICIDE SERVICE REPORTS

In the case of *United States v. Bio-Tech Management Inc.*, between October 2005 and June 2009, a business owner instructed his pest control services company, Bio-Tech Management Inc., to make use indoors – against the manufacturer's guidelines and in violation of the Federal Insecticide, Fungicide and Rodenticide Act – of pesticides that were designed for outdoor use only. This involved the repeated misapplication of the registered pesticide Termidor SC in nursing homes within the state of Georgia. When the Georgia Department of Agriculture investigated the company's misuse of pesticides, the business owner instructed some employees to manipulate service reports, attempting to conceal the pesticide misuse and impede the investigation. Both the owner and Bio-Tech Management Inc. pleaded guilty to conspiracy, violations of the Federal Insecticide, Fungicide and Rodenticide Act, making false statements and mail fraud. On 27 August 2014, the owner received a 24-month prison sentence followed by a year of supervised release, as well as a $7,500 fine. The company was fined $50,000 and placed on a three-year probationary term.

Source: United States Department of Justice Office of Public Affairs "Alabama pest control company and its owner sentenced for unlawful application of pesticides at Georgia nursing homes", 27 August 2014. Available at www.justice.gov/opa/pr/alabama-pest-control-company-and-its-owner-sentenced-unlawful-application-pesticides-georgia.

CASE STUDY: CONCEALING DELIBERATE POLLUTION THROUGH FRAUD

In the United States of America, Liquimar Tankers Management Services Inc. and Evridiki Navigation Inc. were sentenced after being convicted at trial on all charges brought against them, including violating the Act to Prevent Pollution from Ships, falsifying ships' documents, obstructing a United States Coast Guard inspection and making false statements to Coast Guard inspectors.

In March 2019, the *Evridiki* was inspected by the United States Coast Guard at a port in Anchorage, Alaska, after a delivery of crude oil. The jury found that, during the inspection, Liquimar Tankers Management Services Inc., Evridiki Navigation Inc. and the ship's chief engineer had sought to deceive Coast Guard inspectors regarding the use of the ship's oily water separator and oil content meter, a required pollution prevention device. The chief engineer had used a hidden valve to trap fresh water inside the sample line so that the oil content meter sensor registered zero parts per million concentration of oil instead of what was really being discharged overboard. The Coast Guard and government experts were able to prove that fresh water was being used to produce false readings on the oil content meter by analysing historical data recovered from the machine's memory chip. When Coast Guard inspectors opened the oily water separator, they found it was inoperable and fouled with copious amounts of oil and soot.

The chief engineer's conviction was upheld in December 2021 by the Court of Appeals for the Third Circuit, which rejected a challenge to jurisdiction of the United States of America over foreign vessels. The corporations were fined a total of $3 million – $2 million for Evridiki Navigation Inc. and $1 million for Liquimar Tankers Management Services Inc. – and sentenced to a five-year period of probation.

Source: United States Department of Justice Office of Public Affairs, "Oil tanker owner and operator sentenced for obstructing justice and concealing deliberate pollution", 5 May 2022. Available at www.justice.gov/opa/pr/oil-tanker-owner-and-operator-sentenced-obstructing-justice-and-concealing-deliberate. Also see United States Court of Appeals for the Third Circuit, *United States v. Nikolaos Vastardis*, No. 20-2040, Opinion, 7 December 2021.

LEGISLATIVE EXAMPLE: GUYANA

Environmental Protection Act (1996)

[…]

Offences by bodies corporate

41. Where an offence under any provision of this Act or the regulations committed by a body corporate is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of, any director, manager, secretary or other officer of the body corporate or a person who was purporting to act in such capacity, he as well as the body corporate shall be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

[…]

RELATED OFFENCES

The various types of pollution crime may be facilitated by a number of related, ancillary offences. In the same way as crimes that affect the environment more generally, pollution crime often converges with other forms of criminal activity, such as corruption and money-laundering.[96] Although such links can make pollution crimes harder to identify, investigate and prosecute, they open up other potential avenues for holding perpetrators to account. For example, where there is insufficient evidence for prosecution of acts of illegal pollution themselves, the involvement of offenders in other related offending can facilitate criminal convictions. Certain related offences, such as those covering conspiracy or criminal association, may also permit law enforcement action to be taken before pollution crimes even take place and may, in fact, attract higher penalties.

Under the Organized Crime Convention, States parties are required to criminalize participation in an organized criminal group, as well as money-laundering, corruption and obstruction of justice. It is essential that States make each of those forms of conduct a crime in order to effectively address pollution crimes and to comply with their obligations under the Convention. The present section provides guidance on such offences.

Participation in an organized criminal group

Under article 5 of the Organized Crime Convention, States parties are required to adopt legislative measures to criminalize participation in an organized criminal group, as defined in article 2 (a) of the Convention. Under article 5 (1) (a), States parties have a choice of one or both of two different models for achieving that end. The agreement-type offence in article 5 (1) (a) (i) reflects the conspiracy model most commonly used in common-law jurisdictions, while the offence in article 5 (1) (a) (ii) draws on the criminal association model traditionally adopted in civil-law jurisdictions.

Model legislative provisions 8 and 9 reflect the two models established in the Convention for criminalizing participation in an organized criminal group. The provisions are based on the wording of article 5 (1) (a) of the Convention, and States can choose whether to legislate one or both of the offences. The first is an offence of conspiracy and the second is a criminal association offence. The second option is especially suitable for States that do not recognize conspiracy in their criminal laws or otherwise do not permit the criminalization of mere agreements.

[96] Stoyan Barrett and Rob White, "Disrupting environmental crime at the local level: an operational perspective", *Palgrave Communications*, vol. 3, No. 2 (2017), pp. 1 and 2.

In order to establish criminal liability for the first alternative (model legislative provision 8), a combination of physical and mental elements must be proved. The physical element is that the accused agreed with one or more persons to commit a serious crime. There are two mental elements: (a) an intention to make an agreement with one or more persons to commit the crime and (b) the further intention of obtaining a financial or other material benefit.

It may be noted that the model provision does not contain the word "intention". Nevertheless, the act of agreement to commit an offence can only be committed intentionally, with the purpose of obtaining a benefit also equating to intention. Lesser mental elements, such as recklessness or negligence, therefore, would not suffice. It should be stressed that there is no need to prove that the accused came close to completion of the agreed-upon serious crime.

A second optional paragraph is provided for States that wish, or are obliged by domestic law, to require that a further act is carried out by one of the participants in furtherance of the agreement. The optional element ensures that the offence does not cover agreements where no action has been taken. States may also choose to include an additional physical element in the offence, requiring that the agreement involve an organized criminal group.

MODEL LEGISLATIVE PROVISION 8: CONSPIRACY

1. Any person who agrees with one or more other persons to commit a serious crime in order to obtain, directly or indirectly, a financial or other material benefit, commits an offence punishable by [*insert maximum penalty*].

[2. For a person to be convicted under this section, an act other than the making of the agreement must be carried out by one of the participants in furtherance of the agreement.]

LEGISLATIVE EXAMPLE: NORWAY

Penal Code (2005)

[…]

Section 198. Conspiracy to commit serious organised crime

Any person who enters into a conspiracy with someone to commit an act that is punishable by imprisonment for a term not exceeding three years, and that is to be committed as part of the activities of an organised criminal group, shall be subject to a penalty of imprisonment for a term not exceeding three years, unless the offence is subject to a stricter penal provision. An increased maximum penalty due to a repeated offence or concurrent offences is not taken into account.

[…]

The second option (model legislative provision 9) comprises two separate criminal association offences, both of which are required if States choose this option. The first offence covers participation in the criminal activities of an organized criminal group. The second offence covers participation in other activities, which may not themselves be crimes, of the organized criminal group.

Under paragraph 1, which contains the first association offence, proof is required of one physical element, namely that the accused took an active part in criminal activities of an organized criminal group. Proof of several mental elements is also required. Those are (a) an intention to take an active part in criminal activities of an organized criminal group and (b) knowledge of either (i) the aim and general criminal activity of the organized criminal group or (ii) the intention of the organized criminal group to commit one or more offences.

Under paragraph 2, proof is required of one physical element, namely that the accused took an active part in activities of an organized criminal group. The following mental elements are also required: (a) an intention to take an active part in activities of an organized criminal group; (b) knowledge of either (i) the aim and general criminal activity of the organized criminal group or (ii) the intention of the organized criminal group to commit the crimes in question; and (c) knowledge that the accused's participation will contribute to the achievement of the organized criminal group's aim or its intention to the commit the crimes in question.

As noted above, the activities relevant to paragraph 2 do not need to be criminal or otherwise illegal. States may wish to clarify this fact in their legislation.

Further information about each model of criminalizing participation in an organized criminal group can be found in the *Legislative Guide for the Implementation of the United Nations Convention against Transnational Organized Crime*.

MODEL LEGISLATIVE PROVISION 9: PARTICIPATION IN AN ORGANIZED CRIMINAL GROUP

1. Any person who intentionally [or knowingly] takes an active part in criminal activities of an organized criminal group, knowing either the aim and general activity of the organized criminal group, or its intention to commit the crimes in question, commits an offence punishable by [*insert maximum penalty*].

2. Any person who intentionally [or knowingly] takes an active part in [any other] activities of an organized criminal group:

   a. Knowing either the aim and general activity of the organized criminal group, or its intention to commit the crimes in question; and

   b. Knowing that his or her conduct will contribute to the achievement of the aim of the organized criminal group or its intention to commit the crimes in question

commits an offence punishable by [*insert maximum penalty*].

LEGISLATIVE EXAMPLE: TONGA

Counter-Terrorism and Transnational Organised Crime Act (2013)

[…]

66. Participation in an organised criminal group

(1) Any person who participates (whether as a member, associate member or prospective member) in an organised criminal group, knowing that it is an organized criminal group:

(a) knowing that his participation contributes to the occurrence of criminal activity; or

(b) reckless as to whether his participation contributes to the occurrence of criminal activity

commits an offence under this section.

[…]

LEGISLATIVE EXAMPLE: IRELAND

Criminal Justice Act (2006)

[…]

Offence to participate in, or contribute to, certain activities

72. (1) A person is guilty of an offence if, with knowledge of the existence of the organization referred to in this subsection, the person participates in or contributes to any activity (whether constituting an offence or not):

(a) intending either to:

(i) enhance the ability of a criminal organization or any of its members to commit, or

(ii) facilitate the commission by a criminal organization, or any of its members of,

a serious offence, or

(b) being reckless as to whether such participation or contribution could either:

(i) enhance the ability of a criminal organization or any of its members to commit, or

(ii) facilitate the commission by a criminal organization, or any of its members of,

a serious offence.

[…]

Money-laundering

Economic incentives are among the major drivers of pollution offences.[97] Although pollution may be, in some cases, ancillary to the profit-making activity, various pollution crimes, such as the smuggling of banned pollutants across borders, may directly generate money that is then laundered to conceal its illicit origins.[98] States should ensure that measures are in place to criminalize the laundering of money obtained from such forms of criminal activity.

POLLUTION CRIMES AND ILLICIT PROCEEDS IN EUROPE

Criminal groups in Europe are involved in the illegal trade of ozone-depleting substances, such as hydrofluorocarbons. Increasing market scarcity of hydrofluorocarbons, owing to the serious environmental impacts of such substances, has led to importation of the materials covertly, as well as through normal market channels. Criminals buy hydrofluorocarbons at low prices, often in China, and then sell them for much higher prices once they have been trafficked into Europe, generating considerable illicit profits.[a]

In this context, it may be noted that EU Directive 2018/1673 of the European Parliament and of the Council of 23 October 2018 on combating money-laundering by criminal law specifically designates environmental crime as a predicate offence for money-laundering.

[a] Europol, *Environmental Crime in the Age of Climate Change: Threat Assessment 2022* (Luxembourg, Publications Office of the European Union, 2022), pp. 19 and 20.

[97] INTERPOL, *The Nexus between Organized Crime and Pollution*, p. 18.

[98] Financial Action Task Force, *Money Laundering from Environmental Crimes* (Paris, 2021).

Under article 6 of the Organized Crime Convention, States parties are required to implement measures to criminalize money-laundering or, as it is referred to in the Convention, "laundering of the proceeds of crime".[99] "Proceeds of crime" is defined in article 2 (e) of the Convention as any property derived from or obtained, directly or indirectly, through the commission of an offence. "Property" is defined in article 2 (d) as assets of every kind, whether corporeal or incorporeal, movable or immovable, tangible or intangible, and legal documents or instruments evidencing title to, or interest in, such assets.

Under article 6 (1), States parties are required to introduce criminal offences relating to various aspects of money-laundering. The four offences that must be established include (a) conversion or transfer of proceeds of crime; (b) concealment or disguise of proceeds of crime; and, subject to the basic concepts of a State's legal system; (c) acquisition, possession or use of proceeds of crime; and (d) participation in, association with or conspiracy to commit, attempt to commit, aiding, abetting, facilitating and counselling the commission of any of the foregoing.

The link between such offences and other forms of organized crime lies in their application to predicate offences. In article 2 (h) of the Convention, "predicate offence" is defined as any offence as a result of which proceeds have been generated that may become the subject of an offence as defined in article 6 of the Convention. Under article 6 (2) (b), the Convention specifically provides for all serious crimes, as defined under article 2 (b), and all other offences established in accordance with the Convention to be predicate offences of money-laundering. Under article 6 (2) (a), States parties are encouraged to apply the definition of money-laundering offences provided in article 6 (1) to the widest range of predicate offences.

The approaches taken to defining predicate offences differ among States. Some States have taken the approach of setting out an exhaustive list of predicate offences in their legislation. Where this option is taken, States are required under article 6 (2) (b) of the Convention to include, at a minimum, a comprehensive range of offences associated with organized criminal groups. Other States have defined predicate offences generically as including all crimes, or all serious crimes, or all crimes subject to a defined penalty threshold.

Whichever option is taken, States should ensure that pollution offences are included as predicate offences. Where existing law does not do so automatically, such offences should be explicitly designated as predicate offences. Model legislative provision 10 contains text to cover money-laundering, and an example of such a provision in national legislation is provided below.

MODEL LEGISLATIVE PROVISION 10: MONEY-LAUNDERING

Offences contained in this [Act/Law/Chapter …] [punishable by a maximum penalty of [*insert maximum penalty*] or greater] are to be considered predicate offences to money-laundering under [*insert reference to relevant legislation pertaining to money-laundering*].

[99] The two terms are synonymous, see UNODC, *Travaux Préparatoires of the Negotiations for the Elaboration of the United Nations Convention against Transnational Organized Crime and the Protocols Thereto*, (New York, 2006), p. 62.

LEGISLATIVE EXAMPLE: INDIA

Prevention of Money-Laundering Act (2002)[a]

[…]

2. Definitions

[…]

2(u) "proceeds of crime" means any property derived or obtained, directly or indirectly, by any person as a result of criminal activity relating to a scheduled offence or the value of any such property;

[…]

2(y) "scheduled offence" means:

(i) the offences specified under Part A of the Schedule; or

(ii) the offences specified under Part B of the Schedule if the total value involved in such offences is one crore rupees or more; or

(iii) the offences specified under Part C of the Schedule.

[…]

[a] Various pollution offences are included in the schedules to the Act, including offences under the Environment Protection Act, 1986; the Water (Prevention and Control of Pollution) Act, 1974; and the Air (Prevention and Control of Pollution) Act, 1981.

Finally, it should be noted that in some States there is no requirement for the offence of money-laundering to be linked to a particular predicate offence. In such circumstances, it may be sufficient to prove that property is the proceeds of crime and that the accused knew or ought to have known that he or she was dealing with proceeds of crime.

Corruption

Organized criminal groups, including those involved in pollution crimes, frequently make use of corruption in the course of their operations. Bribery and other forms of corruption are used to create or exploit opportunities for criminal activity and protect such activity from interference. Corrupt officials may facilitate efforts by organized criminal groups to obstruct justice, intimidate witnesses and victims, and otherwise impede the international law enforcement cooperation that the Organized Crime Convention is aimed at promoting, including by possibly refusing to extradite serious criminals.

Corruption therefore reduces risks and increases illicit profits for organized criminal groups. It also has wider, more pervasive impacts on society: it weakens institutions, erodes trust, and discourages investment and trade. When corruption reaches the highest levels of government, it can undermine the integrity of government systems and threaten broader economic and social stability.

A report by INTERPOL published in 2022 revealed that a key characteristic of pollution criminality is the capacity of those involved to penetrate the public sector and local politics.[100] In the context of pollution offences, corruption can impair the proper implementation and enforcement of frameworks for regulating pollutants. For example, corruption can affect the granting of permits and licences, such as the licensing of disposal facilities or the authorization of persons to transport hazardous pollutants. It may help criminals commit emissions fraud by bypassing checks on the pollution levels from factories or standards for vehicle emission systems. It may also help to prevent the investigation of illegal dumping of pollutants, including

[100] INTERPOL, *The Nexus between Organized Crime and Pollution*, p. 24.

in remote areas, waterways and the ocean. Corruption can also facilitate the movement of pollutants across international borders.

Under the Organized Crime Convention, States parties are required to take measures to combat corruption, including by ensuring effective action by their authorities in the prevention, detection and punishment of the corruption of public officials.[101] The Convention also calls on States to create corruption offences covering active bribery (the giving of bribes), passive bribery (the acceptance of bribes) and participation as an accomplice to bribery. In addition to criminalizing those mandatory offences, States are to consider criminalizing other forms of corruption, including bribery of foreign officials.

It is important to note that nearly all States parties to the Organized Crime Convention are also parties to the United Nations Convention against Corruption, which provides a broader and more detailed framework for addressing corruption. The Convention against Corruption is the only legally binding and universal anti-corruption instrument. The broad scope of the Convention and the mandatory character of many of its provisions make it a unique tool for developing a comprehensive response to corruption. The Convention comprises five interconnected pillars, namely prevention, criminalization and law enforcement, international cooperation, asset recovery, and technical assistance and information exchange. As part of the criminalization and law enforcement pillar of the Convention, States are called upon to counter a range of corrupt behaviour, including bribery, embezzlement, trading in influence, abuse of functions and various acts of corruption in the private sector.

In its resolution 8/12 on preventing and combating corruption as it relates to crimes that have an impact on the environment, which was adopted in 2019, the Conference of the States Parties to the Convention against Corruption urged States parties to implement the Convention in accordance with their domestic legislation and to ensure respect for its provisions, with a view to making best use of the Convention in preventing and combating corruption as it relates to crimes that have an impact on the environment and the recovery and return of proceeds of crimes that have an impact on the environment, in accordance with the Convention. It also urged States parties to enhance the application of the Convention, in accordance with its terms, in order to effectively prevent, investigate and prosecute corruption offences established in accordance with the Convention, including in circumstances where they may be linked to crimes that have an impact on the environment, as well as to freeze, seize, confiscate and return the proceeds of crime, in accordance with the Convention, and to consider measures criminalizing the attempt to commit such corruption offences, as provided in its article 27, including when organized criminal groups are involved.

In a report analysing the implementation of resolution 8/12, some States parties reported action taken in cases involving bribery, embezzlement or abuse of function that included public officials failing to execute their duties to prevent contamination, as well as burning of materials resulting in soil and air pollution.[102]

Preventing and combating pollution crimes requires legislation for effectively preventing and combating corruption. In that regard, States are called to implement the frameworks and tools provided by the Convention against Corruption and the Organized Crime Convention. Further information on the implementation of the conventions can be found in relevant UNODC publications.[103]

[101] Organized Crime Convention, art. 9 (2).

[102] See UNODC, *Preventing and Combating Corruption as it Relates to Crimes that Have an Impact on the Environment: An Overview* (Vienna, 2021).

[103] See UNODC, *Legislative Guide for the Implementation of the United Nations Convention against Corruption*, 2nd rev. ed. (Vienna, 2012); UNODC, *Legislative Guide for the Implementation of the United Nations Convention against Transnational Organized Crime*, 2nd ed. (Vienna, 2017); and UNODC, *Status of Implementation of the United Nations Convention against Corruption: Criminalization, Law Enforcement and International Cooperation*, 2nd ed. (Vienna, 2017).

Obstruction of justice

Organized criminal groups are often able to avoid detection and prosecution, as well as maintain and expand their criminal operations, by using threats, coercion and violence against judges, jurors, witnesses, law enforcement officers and other officials. Higher-level members of criminal groups, or more senior managers of corporations where legal persons are involved, may also order lower-level members or employees to lie to authorities or destroy evidence. Many individuals have been seriously injured or even lost their life in their efforts to bring organized criminal groups and members of criminal organizations to justice. In order to effectively tackle pollution offences and the involvement of organized criminal groups in such offences, States must have adequate provisions criminalizing obstruction of justice.

Under article 23 of the Organized Crime Convention, States parties are required to criminalize two sets of conduct involving the obstruction of justice, as reflected in article 23 (a) and (b), respectively. The offence defined in model legislative provision 11 reflects this requirement of the Convention and covers each set of conduct in its paragraphs 1 and 2, respectively. It is important to note that the focus of article 23, and the model provision below, is on the conduct of the person and the intention behind it, not the result. It is not necessary to prove that the giving of false testimony or the production of false evidence actually resulted in a crime or that there was actual interference with duties.

States should assess the need to include in their pollution legislation a specific provision that criminalizes the obstruction of justice. Whether attempts to obstruct justice in relation to inspectors, investigators, law enforcement officers and other similar officials would be covered by existing offences is of particular importance in that regard. Some States already have comprehensive provisions that extend protection to such officials and would cover the conduct criminalized by model legislative provision 11. States that have instead opted to include specialized obstruction of justice provisions in specific laws may wish to consider including in their pollution legislation an offence such as that contained in model provision 11.

In jurisdictions in which enforcement powers are exercised by competent authorities other than police, States should ensure that specialized obstruction of justice provisions cover all officers responsible for verifying compliance and for carrying out inspection and enforcement actions in relation to pollution offences. Furthermore, States should criminalize conduct that involves obstructing justice in both the trial phase and the pretrial phase of any proceedings related to offences covered by the Convention, including during investigation.

A further issue, not addressed in model provision 11 but which States may wish to consider, is the extension of obstruction of justice offences to journalists, environmental defenders and other similar categories of person. Though not necessarily directly involved in legal proceedings, such individuals are often closely involved in bringing perpetrators of environmental crimes, including pollution crimes, to justice. Their protection is further addressed in chapter VIII.

MODEL LEGISLATIVE PROVISION 11: OBSTRUCTION OF JUSTICE

1. Any person who, in relation to the commission of any offence under this [Act/Chapter/Law …], uses force, threats or intimidation, or promises, offers or gives any undue advantage in order to:

   (a) Induce false testimony; or

   (b) Interfere in the giving of testimony or production of evidence;

   commits an offence punishable by [*insert maximum penalty*].

2. Any person who in relation to the commission of any offence under this [Act/Chapter/Law …] uses force, threats or intimidation in order to interfere with the exercise of the duties of law enforcement, prosecution or judicial officials commits an offence punishable by [*insert maximum penalty*].

LEGISLATIVE EXAMPLE: BELIZE

Environmental Protection Act (1992)

[…]

Obstruction etc., of designated officer

28. Every person who assaults, obstructs or hinders a designated officer in the execution of his duty under this Act or regulations made thereunder commits an offence and shall be liable on summary conviction to a fine not exceeding five thousand dollars, or to imprisonment for a term not less than six months and not exceeding five years, or to both such fine and imprisonment.

[…]

LEGISLATIVE EXAMPLE: THAILAND

Enhancement and Conservation of National Environmental Quality Act (1992)

[…]

Chapter VII. Penal provisions

[…]

Section 108. Any person who obstructs or refuses to comply with the order of the pollution control official given in the performance of his duty according to Section 82 (2) shall be punished by imprisonment not exceeding one month or fine not exceeding ten thousand baht, or both.

[…]

LEGISLATIVE EXAMPLE: PHILIPPINES

Witness Protection, Security and Benefit Act (1991)

[…]

Section 17. Penalty for harassment of witnesses

Any person who harasses a Witness and thereby hinders, delays, prevents or dissuades a Witness from:

a. attending or testifying before any judicial or quasi-judicial body or investigating authority;

b. reporting to a law enforcement officer or judge the commission or possible commission of an offense, or a violation of conditions or probation, parole, or release pending judicial proceedings;

c. seeking the arrest of another person in connection with the offense;

d. causing a criminal prosecution, or a proceeding for the revocation of a parole or probation; or

e. performing and enjoying the rights and benefits under this Act or attempts to do so,

shall be fined not more than three thousand pesos or suffer imprisonment of not less than six months but not more than one year, or both. He shall also suffer the penalty of perpetual disqualification from holding public office in case of a public officer.

[…]

EXTENSIONS TO LIABILITY

Liability for attempt

States should ensure that liability for attempt of the offences contemplated in the present guide is established under domestic law. The general criminal law of most States provides for liability for attempts automatically. Where this is not the case, States should introduce specific provisions in pollution legislation to achieve this.

It may be noted that attempt offences usually require a high degree of fault, regardless of the mental elements required to prove the completed offence. As such, attempts of the offences contemplated in this guide should require proof of intention.

Secondary liability

There may be a number of actors other than principal offenders involved in pollution offences that organize, direct, aid, abet, facilitate or counsel the commission of such offences. Legislation combating pollution crimes should criminalize the conduct of such offenders. This is commonly referred to as secondary liability.

Secondary liability generally requires a higher degree of fault than that required for primary offending. This is because, as the form of criminal liability moves further away from the actual infliction of harm, the grounds of liability should become narrower.[104] Accordingly, aiding, abetting, counselling, procuring or facilitating the commission of an offence requires proof of intention, meaning that the person intended the act of assistance or encouragement and knew that the principal offender intended to perform or contemplated performing actions which constitute the offence.[105]

In many jurisdictions, secondary liability is established for all criminal offences by general provisions of criminal law. In such jurisdictions, specific provisions on secondary liability in pollution legislation may not be necessary. Where that is not the case, pollution legislation should expressly establish secondary liability.

Under article 5 (1) (b) of the Organized Crime Convention, States parties are required to establish liability for persons who organize or direct serious crimes involving an organized criminal group, as well as those who aid, abet, facilitate or counsel the commission of such crimes. Model legislative provision 12 reflects this obligation and sets out an offence that extends liability for involvement in pollution offences to secondary offenders. The provision allows for the prosecution of leaders, organizers and accomplices, as well as persons involved at lower levels in pollution offences. States may consider attaching more serious penalties to those who organize or direct such offending, given their greater degree of culpability. As such, model legislative provision 12 allows for separate provisions and penalties for persons organizing and directing, as distinct from aiding, abetting, facilitating, counselling or procuring.

MODEL LEGISLATIVE PROVISION 12: ORGANIZING, DIRECTING, AIDING OR OTHERWISE ENABLING THE COMMISSION OF AN OFFENCE

1. Any person who intentionally organizes or directs the commission of an offence to which this [Act/Law/Chapter …] applies commits an offence punishable by [*insert maximum penalty*].

2. Any person who intentionally aids, abets, facilitates, counsels or procures the commission an offence to which this [Act/Law/Chapter …] applies commits an offence punishable by [*insert maximum penalty*].

[104] Andrew Ashworth and Jeremy Horder, *Principles of Criminal Law*, 7th ed. (Oxford, Oxford University Press, 2013), p. 432.

[105] A.P. Simester and others, *Simester and Sullivan's Criminal Law: Theory and Doctrine*, 6th ed. (London, Hart Publishing, 2016), pp. 228, 229 and 240; and Ashworth and Horder, *Principles of Criminal Law*, pp. 431 and 432.

LEGISLATIVE EXAMPLE: CANADA

Criminal Code (1985)

[…]

Instructing commission of offence for criminal organization

467.13. (1) Every person who is one of the persons who constitute a criminal organization and who knowingly instructs, directly or indirectly, any person to commit an offence under this or any other Act of Parliament for the benefit of, at the direction of, or in association with, the criminal organization is guilty of an indictable offence and liable to imprisonment for life.

Prosecution

(2) In a prosecution for an offence under subsection (1), it is not necessary for the prosecutor to prove that

(a) an offence other than the offence under subsection (1) was actually committed;

(b) the accused instructed a particular person to commit an offence; or

(c) the accused knew the identity of all of the persons who constitute the criminal organization.

[...]

LIABILITY OF LEGAL PERSONS

A "legal person" (sometimes known as "juristic" or "juridical" person) refers to an organization that, for the purposes of the laws of a particular jurisdiction, is considered to be a person. Legal persons enjoy some, but not necessarily all, of the rights and obligations of a natural person in that jurisdiction. Corporations are the most common example of an organization with legal personality but legal persons can also include a range of other entities depending on the law of a given State.

Legal persons can be closely linked to pollution offences in several different ways. Organized criminal groups may set up or infiltrate legitimate businesses to secure and facilitate illicit enterprises that manufacture, traffic or dump illegal pollutants. Legally established companies may also engage in organized criminal activities.[106] For example, companies may knowingly contravene their legal obligations and produce illegal pollution to reduce the costs of running the business or to pursue greater profits. This may be the case, for instance, where corporations knowingly emit unauthorized pollution into waterways, fail to prevent oil spillage from marine vessels[107] or modify car production to misrepresent the level of emissions.[108]

[106] See article 2 (a) of the Organized Crime Convention.

[107] United States Department of Justice Office of Public Affairs, "Japanese shipping company fined $1.5 million for concealing illegal discharges of oily water", press release, 30 July 2020.

[108] Jae C. Jung and Elizabeth Sharon, "The Volkswagen emissions scandal and its aftermath", *Global Business and Organizational Excellence*, vol. 38, No. 4 (May/June 2019).

LINKS BETWEEN POLLUTION, ORGANIZED CRIME AND LEGAL PERSONS

In a report examining the nexus between pollution crime and organized crime, INTERPOL found that illegal operations may be concealed through the use of legitimate businesses. Illicit activities increase profits and are generally facilitated through various financial crimes, such as document forgery and manipulation. The report noted that, in the cases analysed by INTERPOL, companies were the prevalent suspects in the organizational models named "clusters of criminal groups" and "chains of suspects". In those horizontal structures, each role corresponds to a specific expertise and business area, typically covered by different specialized companies.[a]

[a] INTERPOL, *The Nexus between Organized Crime and Pollution*, Strategic Report (Lyon, France, 2022), p. 27.

In order to combat pollution offences effectively, it is necessary to ensure that legal persons are held responsible for their actions and omissions. Under article 10 of the Organized Crime Convention, States parties are required to establish a legal framework addressing the liability of legal persons, including such measures as may be necessary to establish the liability of such persons for participation in serious crimes involving an organized criminal group. Article 10 (2) states that such liability may be criminal, civil or administrative, thus leaving individual States parties to decide the nature of liability. Some States may choose to employ multiple forms of liability for legal persons within their legal system. The liability of legal persons must, however, be without prejudice to the criminal liability of the natural persons who have committed the offences.[109]

Although criminal liability is the most serious form of liability, and generally attracts the most severe sanctions, some jurisdictions do not recognize the capacity of legal persons to commit criminal offences. In such cases, civil or administrative liability will be the only options available. The meanings of the two terms are theoretically distinct but their usage varies under different legal systems, and the terms may sometimes even be used interchangeably. For the purposes of this guide, "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. In the same way as for civil liability, administrative liability does not result in a criminal conviction. Civil and administrative liability are both generally associated with lower standards of proof than criminal liability.

Where criminal, civil or administrative liability for legal persons involved in pollution offences is not already provided for under domestic law, States should include specific provisions establishing such liability. The decision as to whether to establish any of these forms of liability should be made by each State individually, taking into account its legal tradition and whether its legal system recognizes the capacity for legal persons to commit criminal offences. Whichever form of liability is established, States should ensure that courts or regulators can impose effective, proportionate and dissuasive sanctions, as required by article 10 (4) of the Organized Crime Convention. Relevant sanctions for legal persons are discussed in chapter VII.

Model legislative provision 13 proposes text establishing criminal liability for legal persons in respect of offences covered in the present guide. Paragraph 1 of model provision 13 provides that legal persons may be criminally liable for pollution offences, and paragraph 2 reflects the obligation under the Organized Crime Convention for ensuring that liability of legal persons is without prejudice to the criminal liability of the natural persons who have committed the same offences.

Paragraph 3 (a) of the model provision provides a definition of legal persons, although the list of legal persons is not exhaustive. The forms of legal personality and their status vary considerably between jurisdictions, and careful consideration should be given to the range of entities that may be subject to liability. Among the issues for consideration by legislative drafters in that regard is the extent to which provisions relating to the liability of legal persons should cover public bodies, if at all. Public bodies could include government agencies, State-owned corporations, and local and regulatory authorities.

[109] Organized Crime Convention, art. 10 (3).

An important part of establishing the criminal liability of legal persons is determining whose conduct is capable of attribution to the legal person; in other words, for whose conduct the legal person may be held liable. As explained further below, paragraph 4 of model provision 13 provides that a legal person may be liable for the conduct of a senior officer of that legal person and also provides an option for a legal person to be liable for the conduct of persons under a senior officer's supervision or management.

It is important that legislative drafters ensure that provisions concerning the attribution of the conduct of certain persons to a legal person focus on the person's actual role in the organization and are not limited to persons holding certain titles or positions. In that context, paragraph 3 (b) defines "senior officer" as any employee, agent or officer of the legal person with duties of such responsibility that his or her conduct may fairly be assumed to represent the legal person's policy. In some cases, that may include persons who exercise such duties and responsibilities without holding a formal office within the legal person.

Paragraph 4 sets out the circumstances in which a legal person becomes liable for offences associated with its senior officers, and reflects the so-called "attribution" or "identification" doctrine of liability of legal persons that is applied in certain countries. Three different ways are listed in which a legal person can be liable for the conduct of its senior officers (or, if desired, persons under a senior officer's supervision or management). Firstly, the legal person may be liable when senior officers (or persons under their supervision or management) themselves commit an offence (subparagraph (a)). Secondly, legal persons may be liable when senior officers authorize or permit the commission of an offence (subparagraph (b)); and, thirdly, when the senior officers fail to take reasonable steps to prevent the commission of an offence (subparagraph (c)). While subparagraphs (a) and (b) require that some specific action be taken by a senior officer, subparagraph (c) allows for liability to be imposed where there has been a failure of supervision. In the context of subparagraph (c), paragraph 5 provides clarification that reasonable steps for preventing the commission of an offence shall include the adoption and effective implementation of an appropriate organizational and managerial model.

It may be noted that the mental state, if any, required for attribution of the senior officer's conduct to the legal person in paragraph 4 (b) and (c) is left open, and is therefore at the discretion of legislators. Establishing *mens rea* in cases of liability of legal persons is further discussed below.

MODEL LEGISLATIVE PROVISION 13: LIABILITY OF LEGAL PERSONS

1. Legal persons [other than the State] may be criminally liable for offences to which this [Act/Law/Chapter …] applies.

2. The liability of a legal person under this [article/section] does not preclude the criminal liability of any natural person for the same act or omission.

3. In this [Act/Law/Chapter …]:

   (a) "Legal persons" include [bodies corporate, companies, firms, associations, societies, partnerships, local governments, trade unions, municipalities and public bodies];

   (b) "Senior officer" means any employee, agent or officer of the legal person with duties of such responsibility that his or her conduct may fairly be assumed to represent the legal person's policy [including persons exercising de facto management or control].

4. A legal person is liable for an offence where a senior officer of the legal person [or person under the senior officer's supervision or management,] acting on behalf or for the benefit of the legal person:

   (a) Commits the offence;

   (b) [*insert reference to the requisite mental state*] authorizes or permits the commission of the offence; or

   (c) [*insert reference to the requisite mental state*] fails to take reasonable steps to prevent the commission of the offence.

5. For the purpose of paragraph 4 (c), "reasonable steps" shall include the adoption and effective implementation of an appropriate organizational and managerial model.

LEGISLATIVE EXAMPLE: SINGAPORE

Environmental Protection and Management Act (1999)

[…]

Offences by bodies corporate, etc.

71. (1) Where an offence under this Act committed by a body corporate is proved

(a) to have been committed with the consent or connivance of an officer; or

(b) to be attributable to any act or default on his or her part,

the officer as well as the body corporate shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

(2) Where the affairs of a body corporate are managed by its members, subsection (1) applies in relation to the acts and defaults of a member in connection with his or her functions of management as if he or she were a director of the body corporate.

(3) Where an offence under this Act committed by a partnership is proved

(a) to have been committed with the consent or connivance of a partner; or

(b) to be attributable to any act or default on his or her part,

the partner as well as the partnership shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

(4) Where an offence under this Act committed by a limited liability partnership is proved to have been committed with the consent or connivance of, or to be attributable to any act or default on the part of, a partner or manager of the limited liability partnership, the partner or manager (as the case may be) as well as the partnership shall be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

(5) Where an offence under this Act committed by an unincorporated association (other than a partnership) is proved

(a) to have been committed with the consent or connivance of an officer of the unincorporated association or a member of its governing body; or

(b) to be attributable to any act or default on the part of such an officer or a member,

the officer or member as well as the unincorporated association shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

(6) In this section,

"body corporate" and "partnership" exclude a limited liability partnership within the meaning of the Limited Liability Partnerships Act 2005;

"officer"

(a) in relation to a body corporate, means any director, member of the committee of management, chief executive, manager, secretary or other similar officer of the body corporate and includes any person purporting to act in any such capacity; or

(b) in relation to an unincorporated association (other than a partnership), means the president, the secretary, or any member of the committee of the unincorporated association, or any person holding a position analogous to that of the president, secretary or member of the committee and includes any person purporting to act in any such capacity;

"partner" includes a person purporting to act as a partner.

[…]

LEGISLATIVE EXAMPLE: GUYANA

Environmental Protection Act (1996)

[…]

Offences by bodies corporate

41. Where an offence under any provision of this Act or the regulations committed by a body corporate is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of, any director, manager, secretary or other officer of the body corporate or a person who was purporting to act in such capacity, he as well as the body corporate shall be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

[…]

Relevance of due diligence

In the context of liability of legal persons, due diligence refers to steps taken by a legal person to ensure compliance with a particular law. What constitutes due diligence will differ according to the legal system in question, the charge, the circumstances of the alleged offence and the nature of the defendant. In general, the exercise of due diligence will involve risk management and compliance systems for preventing and detecting misconduct or breaches of laws and regulations. The mere existence of policies, procedures and systems to prevent and detect misconduct, however, will not generally be sufficient to absolve a legal person from liability. The efficacy of such systems, and the degree to which they were properly used in the case at hand, will be critical. Ultimately, the decision as to whether or not a legal person has exercised due diligence will always depend on the facts and circumstances of the individual case.

When introducing or amending provisions for the liability of legal persons, States should consider how the law should address a situation in which a legal person has exercised due diligence to ensure compliance with the law but has nevertheless committed an offence. There are different ways in which due diligence may be taken into account in relation to the liability of legal persons. Due diligence on the part of the legal person may exclude a finding of liability. For example, where proof of an offence requires proof of a lack of due diligence (in other words, negligence), the fact that a legal person has exercised due diligence will mean that it cannot be found to be liable. In other circumstances, proof of due diligence may provide an absolute defence to liability for legal persons. Due diligence may also be a factor relevant to the exercise of prosecutorial discretion in bringing a case against a legal person or may provide a mitigating factor in sentencing. The party that bears the burden of proof of due diligence, or lack thereof, may also differ between States or between types of offence.

LEGISLATIVE EXAMPLE: AUSTRALIA

Environment Protection Act (2017)

[…]

349. Liability of officers of bodies corporate—failure to exercise due diligence

(1) If a body corporate that is a corporation within the meaning of section 57A of the Corporations Act commits an offence against, or by contravening, a provision specified in subsection (2), an officer of the body corporate also commits an offence against, or by contravening, the provision if the officer failed to exercise due diligence to prevent the commission of the offence by the body corporate.

[...]

(3) In determining whether an officer of a body corporate failed to exercise due diligence, a Court may have regard to:

(a) what the officer knew, or ought reasonably to have known, about the commission of the offence by the body corporate; and

(b) whether or not the officer was in a position to influence the body corporate in relation to the commission of the offence by the body corporate; and

(c) what steps the officer took, or could reasonably have taken, to prevent the commission of the offence by the body corporate; and

(d) any other relevant matter.

[...]

Challenges to establishing liability

Establishing the liability of legal persons for crimes such as those involving pollution can be difficult for prosecutors. In order to ensure the effectiveness of legislation, legislators should consult with prosecutors and consider potential challenges to achieving convictions for legal persons that have committed pollution crimes.

This section briefly discusses four challenges involved in prosecuting legal persons. This should not be considered an exhaustive list of significant challenges for prosecutors. The challenges considered in this section are: establishing fault (*mens rea*); determining the "nationality" of a legal person for the purposes of asserting jurisdiction; effectively prosecuting the most appropriate entity when the legal person makes use of complex corporate structures; and fulfilling the requirements of dual criminality in cases involving legal persons.

One of the main challenges in imposing criminal liability on legal persons is the need to attribute responsibility to an artificial entity. As a legal person can only act through individuals, it is necessary to develop mechanisms through which liability can be attributed to an organization. The attribution of physical elements of an offence can be comparatively easier, with the attribution of mental states such as "intention" or "knowledge" being more complex. Broadly speaking, two models of liability for legal persons have emerged: derivative (or nominalist) liability and organizational fault. In the derivative liability model, legal persons are viewed as collections of individuals, with liability always located through the acts of an individual; in other words, the acts of an individual are attributed to the legal person. Conversely, in the organizational fault model, the responsibility of the legal person is primary and not dependent on any one individual.[110] The two models thus take different approaches to establishing fault.

In model legislative provision 13, no single model is provided for establishing fault. The mental state, if any, required for attribution of the senior officer's conduct to the legal person is left to the individual State to specify. As noted previously, mental elements and the terminology used to refer to them vary across jurisdictions but

[110] Eric Colvin, "Corporate personality and criminal liability", *Criminal Law Forum*, vol. 6, No. 1 (February 1995), pp. 1 and 2.

could include intention, knowledge, recklessness and negligence. In some cases, strict liability – that is, liability not requiring proof of any mental element – may be appropriate for offences relating to pollution committed by legal persons.

An additional challenge is that of determining the "nationality" of a legal person for the purposes of asserting jurisdiction. As a legal person cannot be extradited, there is arguably a special responsibility of the home jurisdiction to prosecute a legal person within its jurisdiction. This may be especially important where a State will not hear proceedings without the personal presence of the defendant. One criterion of jurisdiction in such cases is based on the nationality of the legal person (the active personality principle). Although there is no universal basis for determining nationality of legal persons, two common bases are the place of incorporation and the principal place of business.

A further challenge concerns the use of complex corporate structures by legal persons. In many cases, legal persons make use of complex corporate structures and act through subsidiaries and other related entities, each potentially having a legal personality of its own. Where such complex structures are used to commit crimes, there may be challenges not only in investigating the offences but also in determining which legal person (or persons) would be the appropriate defendant. The challenges are compounded when corporate structures span across jurisdictions. For example, legal persons may take advantage of jurisdictional gaps, legal loopholes and differing enforcement capacities to evade prosecution for pollution.

The present legislative guide focuses on the attribution of liability to legal persons based on the conduct of natural persons. Legislators should, however, also consider how legal persons may be held liable for their role in offences committed by related organizations. For example, an investigation into pollution offences may implicate a parent company in criminal acts carried out by its subsidiary. In some cases, it may be possible to impose liability on the parent company for being an accessory to the offence, or for conspiring to commit the offence or being part of a criminal association. This may, however, be difficult to establish. An alternative is to impose liability on the parent company on the basis of its control of the other entity. That is, where a legal person can be shown to exercise control over another entity, that legal person, namely the parent company, is held liable for the offence of the controlled, or subsidiary, entity. Liability could also be established on the basis of a legal person knowing that an offence is to be committed on its behalf or for its benefit, or where it has failed to adopt and effectively implement appropriate organizational and managerial models for preventing the commission of an offence by a subsidiary or other related entity.

A failure to legislate for liability for legal persons can pose a challenge to mutual legal assistance in cases involving pollution offences. Although the Organized Crime Convention requires that States parties afford each other the widest measure[111] of mutual legal assistance in investigations, prosecution and judicial proceedings, and provides that mutual legal assistance shall be afforded to the fullest extent possible in relation to offences for which a legal person may be held liable in accordance with article 10 of the Convention,[112] States parties may also decline to render mutual legal assistance on the grounds of absence of dual criminality.[113] This may result in obstacles to cooperation where the legal person, because of a failure to legislate for liability of legal persons, would not be capable of committing the relevant offence in the requested State. In one survey of European Union member States, 32 per cent of requesting and 21 per cent of requested States experienced difficulties in relation to mutual assistance owing to non-recognition of the criminal liability of legal persons.[114]

[111] See Organized Crime Convention, art. 18 (1).

[112] See ibid., art. 18 (2).

[113] See ibid., art. 18 (9).

[114] See Gert Vermeulen, Wendy De Bondt and Charlotte Ryckman, *Liability of Legal Persons for Offences in the EU*, vol. 44, International Research on Criminal Policy Series (Antwerp, Belgium, Maklu Publishers, 2012).

DEFENCES

States may consider it desirable for certain partial or complete defences to be available for specific offences covered in this guide. Defences are to be distinguished from exemptions to criminal liability: whereas a defence excuses or justifies conduct that otherwise would constitute an offence, an exemption excludes certain conduct from the offence itself.

Relevant defences in the context of pollution offences include necessity and mistake of fact. Necessity, sometimes referred to as sudden and extraordinary emergency or force majeure, concerns situations where the perpetrator effectively had little choice but to commit the offence, whereas the defence of mistake excuses conduct committed where the offender made an honest and reasonable mistake of fact. An example of the latter may be where a defendant honestly and reasonably believes it is discharging water, when it is in fact discharging a pollutant. In many States, such defences will already exist as defences of general application. Where such defences do not exist as defences of general application, or specific defences are otherwise desirable, States may wish to introduce them into pollution legislation. As noted above, due diligence may also be established as a defence to liability of legal persons.

In relation to pollution offences for which no proof of mental or fault elements is required, the designation of the offence as an offence of strict or absolute liability has implications for the availability of such defences. Those defences may typically be available in relation to strict liability offences but unavailable where liability is absolute.

LEGISLATIVE EXAMPLE: MALAYSIA

Environmental Quality Act (1974)

[…]

27. Prohibition of discharge of oil into Malaysian waters

(1) No person shall, unless licensed, discharge or spill any oil or mixture containing oil into Malaysian waters in contravention of the acceptable conditions specified under section 21.

[...]

28. Special defences

Where any person is charged for any offence under section 27 it shall be a defence to prove that such discharge or spillage was:

(a) for the purpose of securing the safety of the vessel;

(b) for the purpose of saving human life;

(c) the result of damage to the vessel and that all reasonable steps were taken to prevent, to stop or to reduce the spillage;

(d) the result of a leakage, which was not due to want of care, and that all reasonable steps have been taken to stop or reduce the leakage; or

(e) the result of an effluent produced by operation for the refining of oil, and that all reasonable steps had been taken to eliminate oil from the effluent and that it was not reasonably practicable to dispose of the effluent otherwise than by discharging or spilling it into the Malaysian waters.

[...]

Chapter IV.

INVESTIGATION

The criminalization of pollution crimes alone is not a sufficient deterrent. In order to effectively prevent and combat this form of criminal activity, States must ensure as well that they have effective regimes for investigation. In addition to providing necessary resources and equipment, it is also necessary to equip law enforcement officials responsible for the investigation of pollution and related offences with the powers they need to carry out their functions effectively and in a timely manner.

The specific difficulties associated with investigating and gathering evidence of certain forms of pollution crime must be borne in mind. Unlike many other types of crime, acts of pollution often only give rise to harm long after the pollutants in question have been released into the environment. Even when the harm manifests, it may be difficult to attribute it with certainty to specific acts of pollution.[115] Furthermore, environmental law is often complex,[116] encompassing many technical terms that require specific expertise in order to be fully appreciated. Investigators need to understand the specific types of conduct and resulting situations that are criminalized, so that they know what to look for when gathering evidence. Some pollutants, for example, may only be illegal above certain thresholds, the substances deemed illegal can change over time, and many pollutants may be difficult to identify without sophisticated scientific analysis. Specialist knowledge will also be required to investigate whether certain machinery produces, or poses a risk of producing, unauthorized pollution. Pollution offences may, for example, stem from inadequate or faulty equipment, such as broken oil separators on maritime vessels or defective emission filtration systems in manufacturing facilities. There are also many different forms of pollution, each of which requires different expertise.

A further challenge in the context of investigating pollution crime, and indeed environmental crime more broadly, is the fact that numerous agencies are often involved. Crimes that affect the environment are often set out in environmental laws, separate from general criminal law, and different agencies are commonly responsible for detecting different types of environmental crime. Inter-agency cooperation is, as a result, vital, with the effective sharing of information being key to leading successful prosecutions and obtaining appropriate sanctions for wrongdoing.[117] It will often be the case that general policing forces are required to cooperate with specialist agencies, such as those tasked with investigating breaches of environmental regulations or conducting

[115] Michael O'Hear, "Sentencing the green-collar offender: punishment, culpability, and environmental crime'", *Journal of Criminal Law and Criminology*, vol. 95, No. 1 (January 2004), p. 149.

[116] Richard J. Lazarus, "Meeting the demands of integration in the evolution of environmental criminal law: reforming environmental criminal law", *Georgetown Law Journal*, vol. 83, No.7 (September 1995), p. 2428.

[117] Samantha Bricknell, *Environmental Crime in Australia*, Australian Institute of Criminology, Research and Public Policy Series, No. 109 (Canberra, Australian Institute of Criminology, 2010), p. 17.

financial investigations. It may therefore be beneficial for States to establish coordination bodies or strategic task forces to formalize and facilitate the cooperation necessary for investigating pollution crimes effectively. The INTERPOL concept of national environmental security task forces is one example of such cooperation.

The involvement of civil society stakeholders in uncovering pollution and other crimes that affect the environment is also worth noting. Journalists, non-governmental organizations and other actors may discover and investigate offending and, in some cases, collect information that may be useful for law enforcement authorities. For that reason, law enforcement bodies should also have appropriate procedures in place to facilitate collaboration with such actors where appropriate.[118]

The present chapter addresses three topics relating to the investigation of the crimes covered in this guide, namely general investigative powers, special investigative techniques and seizure.

GENERAL INVESTIGATIVE POWERS

Officials involved in investigating pollution and related offences must have appropriate powers for identifying and gathering evidence in relation to suspected offending. Such powers may include, but are not limited to, the following:

(a) Stopping and searching persons, vehicles, vessels or other conveyances;

(b) Entering and searching premises;

(c) Seizing any weapon, equipment, device, chemical or other thing suspected of being involved in the commission of offences;

(d) Questioning witnesses, suspected offenders and other persons of interest;

(e) Requiring the inspection or production of documents;

(f) Taking photographs or making audiovisual recordings of a thing or place suspected of being involved in the commission of an offence;

(g) Managing crime scenes;

(h) Seizing and searching phones, computers and similar devices found in the possession of suspected offenders;

(i) Requesting forensic information from specialized laboratories;

(j) Where appropriate, compelling persons to answer questions and produce documents relevant to the investigation of an offence;

(k) Requesting access to bank and financial records;

(l) Requesting access to telecommunications records;

(m) Requesting the use of special investigative techniques, such as wiretapping, controlled deliveries and undercover investigations;

(n) Requesting the suspension, variation or revocation of licences, permits, certificates or other relevant documents held by suspected offenders;

(o) Exchanging information with foreign law enforcement agencies;

(p) Coordinating joint investigations;

(q) Requesting the freezing of assets.

All powers must be exercised with respect for the human rights of suspects and other affected persons.

[118] General Assembly resolution 76/185, para. 9.

Although investigative powers are commonly granted to police, investigation of pollution crimes will often require a level of specialized knowledge beyond that of standard law enforcement officers. For that reason, States should ensure that powers such as those listed above are also granted, as appropriate and necessary, to officials with the specific competency to investigate cases of illegal pollution.

An additional comment may be made on those general investigative powers concerning the management of crime scenes. In the context of pollution crimes, there may well be specific challenges to the exercise of such powers, such as where contamination has occurred or where the crime scene is not a fixed place (for example, where the pollution is in a waterway). Consideration should be given to the need to minimize risks to investigators, in particular where the pollution presents dangers to human health, while also ensuring that investigative powers are exercised adequately.

The procedures for the exercise of investigative powers may vary between States. It may be appropriate or necessary for States to restrict those powers to being exercised only under the supervision of a judge or magistrate or, in some cases, a senior law enforcement officer. For example, a warrant or another order of a judge or magistrate may be necessary to exercise certain powers of search, entry and seizure. Where such a warrant cannot be obtained owing to an immediate need to exercise these powers (such as where evidence will be imminently destroyed), provision may be made to allow the power to be used on the condition that approval is sought after the fact.

LEGISLATIVE EXAMPLE: THAILAND

Enhancement and Conservation of National Environmental Quality Act (1992)

[...]

82. In order to perform his functions under this Act, the pollution control official is empowered as follows:

(1) To enter into the building, place and site of the factory or point source of pollution or the site of wastewater treatment or waste disposal facility which belongs to any person, between sunrise and sunset or during working hours, to inspect the functioning process of the wastewater treatment or waste disposal facility, air pollution control system or equipment and other instruments for the control of polluted air or other pollutants, as well as to examine the notes, statistics or data on the functioning of the said facility, equipment and instruments, or when there is a reasonable suspicion that there is non-compliance with this Act.

[...]

LEGISLATIVE EXAMPLE: QATAR

Environmental Protection Act (2002)

[...]

Article 62

Secretariat staff appointed pursuant to a decision of the Chair of the Supreme Council for the Environment and Natural Reserves shall have the status of law enforcement officials, as shall the staff of other administrative entities who are appointed to the Council, with a view to detecting crimes that violate the present Act and its executive regulation and implementing laws. In order to monitor [compliance with] the provisions of the present Act and its executive regulation, they shall have the power to search all locations where activities are conducted that affect the environment.

They may at any time enter all locations where violations of environmental laws occur, compile a record documenting the violations, and take the established legal measures. In particular, they may:

1. Enter and inspect facilities taking into account the laws on safety and employment that are in force for those locations.

2. Request reports on activities likely to cause pollution or environmental degradation.

3. Take samples of waste and materials used, stored or produced by the project to verify compliance with environmental protection regulations and standards.

4. Board vessels and offshore platforms, enter on-shore facilities, and examine equipment used for the transport of oil and of substances that pollute the marine environment, with a view to verifying compliance with the present Act, its executive regulation and the laws adopted for its implementation, and providing materiel and equipment to remedy the violations in compliance with the established restrictions and regulations related to safety and employment.

LEGISLATIVE EXAMPLE: INDIA

The Environment (Protection) Act (1986)

[...]

12. Environmental laboratories

(1) The Central Government may, by notification in the Official Gazette:

(a) establish one or more environmental laboratories;

(b) recognize one or more laboratories or institutes as environmental laboratories to carry out the functions entrusted to an environmental laboratory under this Act.

(2) The Central Government may, by notification in the Official Gazette, make rules specifying:

(a) the functions of the environmental laboratory;

(b) the procedure for the submission to the said laboratory of samples of air, water, soil or other substance for analysis or tests, the form of the laboratory report thereon and the fees payable for such report;

(c) such other matters as may be necessary or expedient to enable that laboratory to carry out its functions.

[...]

LEGISLATIVE EXAMPLE: BARBADOS

Marine Pollution Control Act (1998)

[...]

Enforcement responsibility and powers of Director, inspectors

9. (1) [...]

(2) The Director and every inspector shall have all the powers, rights, privileges and protection of a member of the Police Force in the performance of their duties related to the enforcement functions of the Director under subsection (1); and the specific powers conferred by this Act on the Director or any inspector are conferred without the prejudice to the generality of the powers, rights, privileges and protection mentioned.

[...]

SPECIAL INVESTIGATIVE TECHNIQUES

The covert nature of many forms of organized crime, including pollution crime, may mean that standard investigative powers are inadequate for the purpose of gathering the evidence necessary to charge and prosecute offenders. Furthermore, the hierarchical nature of some criminal groups may shield organizers or directors of the criminal activity, who bear the greatest culpability, from apprehension by law enforcement officials. As lower-level members of such groups can be more easily caught committing offences, the use of sophisticated forms of electronic surveillance and undercover policing may be required to evidence the involvement of higher-level actors.

Under article 20 (1) of the Organized Crime Convention, States parties are required, if permitted by the basic principles of their domestic legal systems, to take the necessary measures to allow for the appropriate use of special investigative techniques, such as electronic or other forms of surveillance and undercover operations. Where compatible with the basic principles of their legal systems and to the extent possible, States should ensure that the special investigative techniques extend to investigation of pollution crimes.

There are many different types of special investigative techniques. Three are specified in article 20 of the Organized Crime Convention, namely controlled deliveries, undercover operations and electronic or other forms of surveillance. The *Legislative Guide for the Implementation of the United Nations Convention against Transnational Organized Crime* provides the following information on those three techniques:

> Controlled delivery is useful in particular in cases where contraband is identified or intercepted in transit and then delivered under surveillance to identify the intended recipients or to monitor its subsequent distribution throughout a criminal organization. Legislative provisions are often required to permit such a course of action as the delivery of the contraband by a law enforcement agent or other person may itself be a crime under domestic law.
>
> Undercover operations may be used where it is possible for a law enforcement agent or other person to infiltrate a criminal organization to gather evidence.
>
> Electronic surveillance in the form of listening devices or the interception of communications performs a similar function and is often preferable where a close-knit group cannot be penetrated by an outsider or where physical infiltration or surveillance would represent an unacceptable risk to the investigation or the safety of investigators. Given its intrusiveness, electronic surveillance must be subject to strict judicial control and numerous statutory safeguards to prevent abuse.[119]

[119] UNODC, *Legislative Guide*, paras. 443–445.

The present section contains model legislative provisions for the above-mentioned types of special investigative technique. This does not preclude the possibility of using other special investigative techniques that may be necessary for investigating criminal activity, which is increasingly facilitated by more advanced technologies.

Some special investigative techniques can be particularly intrusive and thus require careful balancing of a suspect's right to privacy and other human rights against the need to investigate serious criminality. Special investigative techniques will typically require a legislative basis, without which they may not be authorized by law.

As a result of the potential impact of special investigative techniques on privacy and human rights, most jurisdictions require a number of strict safeguards against abuse, including the requirements that the offence is serious, that the use of the technique is vital to the case and that essential evidence cannot be secured by less intrusive means. The model legislative provisions for special investigative techniques in this section include a requirement that the authorizing authority should be satisfied on reasonable grounds that the nature and extent of the criminal activity justify the use of the technique in question. In addition, a gender-responsive application of the measures contributes to the respect of the principles of necessity and proportionality that needs to be ensured when implementing them.[120]

Oversight of the use of special investigative techniques by judicial or other independent authorities is common practice in most jurisdictions and is required under international human rights law. The appropriate safeguards for special investigative techniques may vary depending on the technique in question. It may be appropriate, for example, for controlled delivery to be authorized by senior law enforcement officials, whereas electronic surveillance usually requires judicial authorization and supervision. Accordingly, each type of special investigative technique is addressed in separate sections in this chapter so that an appropriate regime can be established for each.

In general, for each form of special investigative technique, drafters will need to consider the following issues:

(a) The mechanism for approving the technique;

(b) The threshold for granting approval;

(c) Conditions imposed on the use of the technique;

(d) The extent to which officials using special investigative techniques are protected from civil and criminal liability;

(e) Use of evidence obtained through the technique;

(f) The extent to which information obtained can be disseminated;

(g) Supervision, review and oversight mechanisms;

(h) International cooperation;

(i) The possible impact of the use of the technique on third parties.

The provisions in the present chapter are intended to operate in addition to existing laws and regulations concerning the investigative powers of law enforcement and other agencies. It is therefore vital for national drafters to consider the operation of such provisions alongside other national laws, including laws relating to police powers generally, criminal procedure laws, privacy laws, and laws on other forms of international cooperation, in particular mutual legal assistance and extradition.

The present section draws upon chapter III of the UNODC *Model Legislative Provisions against Organized Crime* (2nd ed., 2021). For further information, including further commentary on the design of the model legislative provisions for special investigative techniques and relevant national legislative examples, please refer to that publication.

[120] UNODC, *Issue Paper: Organized Crime and Gender – Issues Relation to the United Nations Convention against Transnational Organized Crime* (Vienna, 2022), p. 29.

Controlled delivery

Controlled delivery is the technique of allowing illicit or suspect consignments to pass out of, through or into the territory of one or more States, with the knowledge and under the supervision of their competent authorities, with a view to the investigation of an offence and the identification of persons involved in the commission of the offence.[121]

Under article 20 (1) of the Organized Crime Convention, States parties shall, if permitted by the basic principles of their national legal systems, allow for the appropriate use of controlled delivery for the purpose of effectively combating organized crime. Model legislative provision 14 proposes text regulating the use of controlled deliveries.

When authorizing a controlled delivery that involves the transportation of pollutants, the designated authorizing authority should consider whether there is any risk of injury to law enforcement officers, cargo and baggage handlers, or any other person, or a breach of any health, safety or other regulations. Authorities should also consider whether taking steps to minimize such risks would serve to alert those involved in criminal activities.

MODEL LEGISLATIVE PROVISION 14:[a] CONTROLLED DELIVERY

1. For the purpose of this article, "controlled delivery" means the technique of allowing illicit or suspect consignments to pass into, within, through or out of the territory of [*insert name of State*] with the knowledge and under the supervision of [*insert competent authority*], with a view to the investigation and the identification of persons involved in offences to which this [Act/Law/Chapter …] applies.

2. A controlled delivery under paragraph 1 is only lawful if it has been authorized in accordance with this article.

3. A controlled delivery may be authorized by [*insert designated position holder or office, such as head and deputy head of competent law enforcement agency, prosecutor, investigative judge or preliminary investigation judge*] (the "authorizing authority") on application by a law enforcement official [or public prosecutor].

4. An application to conduct a controlled delivery can be made by [*insert means needed to submit application*]. The authorizing authority must keep a written record of the application and the subsequent decision made under paragraph 6.

5. An application to conduct a controlled delivery must state:
   (a) All available information regarding the consignment and its destination;
   (b) Whether the matter has been the subject of a previous application; and
   (c) [*Insert additional requirements as appropriate/required*].

6. After considering the application, the authorizing authority may:
   (a) Authorize the controlled delivery unconditionally;
   (b) Authorize the controlled delivery subject to conditions, including the type and extent of substitution of the consignment; or
   (c) Refuse the application to conduct the controlled delivery.

7. The authorizing authority must not approve the application unless satisfied, on reasonable grounds, that:
   (a) An offence to which this [Act/Law/Chapter …] applies has been, is being or is likely to be committed;
   (b) The nature and extent of the suspected criminal activity are such as to justify conducting the controlled delivery;
   (c) Any unlawful activity will be limited to the minimum necessary to achieve the objectives of the controlled delivery;
   (d) The controlled delivery will be conducted in a way that ensures that, to the greatest extent possible, any illicit goods involved in the controlled delivery will be under the control of a law enforcement official at the end of the controlled delivery;

[121] Organized Crime Convention, art. 2 (i).

MODEL LEGISLATIVE PROVISION 14:[a] CONTROLLED DELIVERY (*CONTINUED*)

(e) The controlled delivery will not be conducted in such a way that a person is likely to be induced to commit an offence that the person would otherwise not have intended to commit; and

(f) Any conduct involved in the controlled delivery will not cause the death of or serious injury to any person and will not seriously endanger the life, health or safety of any person.

8. The authorizing authority shall revoke an authorization granted under paragraph 6 if it is no longer satisfied, on reasonable grounds, of the matters referred to in paragraph 7.

9. The authorizing authority shall cancel an authorization granted under paragraph 6 upon receipt of a request for cancellation from the applicant.

10. A law enforcement official or other authorized person who engages in conduct authorized in accordance with this article shall not be subject to criminal or civil liability for that conduct.

11. The authorizing authority shall report annually to [Parliament/a parliamentary committee/the public] on the number of applications received under this article, and the respective numbers of authorizations that were approved, refused, revoked and cancelled under this article.

[a] UNODC, *Model Legislative Provisions against Organized Crime*, 2nd ed., (Vienna, 2021), chap. III. For further information, including further commentary on the design of the model provision and additional relevant national legislative examples, please refer to that publication.

LEGISLATIVE EXAMPLE: AUSTRALIA

Crimes Act (1914)

[...]

Section 15GD. Meaning of controlled operation and major controlled operation

(1) A *controlled operation* is an operation that:

(a) involves the participation of law enforcement officers; and

(b) is carried out for the purpose of obtaining evidence that may lead to the prosecution of a person for a serious Commonwealth offence or a serious State offence that has a federal aspect; and

(c) may involve a law enforcement officer or other person in conduct that would, apart from section 15HA, constitute a Commonwealth offence or an offence against a law of a State or Territory.

Note: Section 15GN specifies when a controlled operation begins and ends.

(2) A *major controlled operation* is a controlled operation that is likely to:

(a) involve the infiltration of an organised criminal group by one or more undercover law enforcement officers for a period of more than 7 days; or

(b) continue for more than 3 months; or

(c) be directed against suspected criminal activity that includes a threat to human life.

Note: Section 15GN specifies when a controlled operation begins and ends.

[...]

Undercover investigation

Under article 20 (1) of the Organized Crime Convention, States parties are required, if permitted by the basic principles of their national legal systems and where appropriate, to allow for the use of undercover operations in their territory for the purpose of combating organized crime. Model legislative provision 15 provides text for regulating the use of undercover investigations.

In addition to addressing the process of applying for and authorizing undercover investigations set out in the model provision, it is vital for legislative drafters to consider whether evidence obtained through undercover investigations can be presented in court, and, if so, whether undercover investigators must reveal their real identity, as well as whether they may testify by special means in order to protect their real identity.

MODEL LEGISLATIVE PROVISION 15: UNDERCOVER INVESTIGATION[a]

1. For the purpose of this article, "undercover investigation" means an investigation that makes use of one or more law enforcement officials [or other persons authorized by [*insert name of relevant law enforcement agency*]] who for the purpose of investigating an offence to which this [Act/Law/Chapter …] applies neither disclose nor reveal their official position or their mandate.

2. An undercover investigation under paragraph 1 is only lawful if it has been authorized in accordance with this article.

3. Undercover investigations can be authorized by [*insert designated position holder or office, such as head and deputy head of competent law enforcement agency, prosecutor, investigative judge or preliminary investigation judge*] (the "authorizing authority") on application by a law enforcement official [or public prosecutor].

4. An application to conduct an undercover investigation can be made by [*insert means needed to submit application*]. The authorizing authority must keep a written record of the application and the subsequent decision made under paragraph 6.

5. An application to conduct an undercover investigation must state:
   (a) The duration for which the authorization is sought;
   (b) Whether the matter has been the subject of a previous application; and
   (c) [*Insert additional requirements as appropriate/required*].

6. After considering the application, the authorizing authority may:
   (a) Authorize the undercover investigation unconditionally;
   (b) Authorize the undercover investigation subject to conditions; or
   (c) Refuse the application to conduct the undercover investigation.

7. The authorizing authority must not approve the application unless satisfied, on reasonable grounds, that:
   (a) An offence to which this [Act/Law/Chapter …] applies has been, is being or is likely to be committed;
   (b) The nature and extent of the suspected criminal activity are such as to justify an undercover investigation;
   (c) Any unlawful activity shall be limited to the minimum necessary to achieve the objectives of the undercover investigation;
   (d) The undercover investigation will not be conducted in such a way that a person is likely to be induced to commit an offence that the person would otherwise not have intended to commit; and
   (e) Any conduct involved in the undercover investigation will not cause the death of or serious injury to any person and will not seriously endanger the life, health or safety of any person.

8. The authorization must specify the time period for which the undercover investigation is authorized, which shall in any case not be longer than [*insert appropriate time period*]. The authorization may be renewed on application.

9. The authorizing authority shall revoke an authorization granted under paragraph 6 if it is no longer satisfied, on reasonable grounds, of the matters referred to in paragraph 7.

MODEL LEGISLATIVE PROVISION 15: UNDERCOVER INVESTIGATION[a] (*CONTINUED*)

10. The authorizing authority shall cancel an authorization granted under paragraph 6 upon receipt of a request for cancellation from the applicant.

11. A law enforcement official or other authorized person who engages in conduct authorized in accordance with this article shall not be criminally or civilly liable for that conduct.

12. The authorizing authority shall report annually to [Parliament/a parliamentary committee/the public] on the number of applications received under this article, and the respective numbers of authorizations that were approved, refused, revoked and cancelled under this article.

[a] UNODC, *Model Legislative Provisions against Organized Crime*, 2nd ed., (Vienna, 2021), chap. III. For further information, including further commentary on the design of the model provision and relevant national legislative examples, please refer to that publication.

Assumed identity

In addition to the techniques expressly mentioned in article 20 of the Organized Crime Convention, States may also consider the use of assumed identities. This technique is intrinsic to undercover operations in particular, including those related to the investigation of pollution offences. Model legislative provision 16 sets out text for regulating the use of assumed identities in the course of investigations.

Aside from the matters addressed in the model provision, legislators should also give consideration to how persons using an assumed identity can provide testimony in criminal trials. In particular, the procedure for giving testimony should ensure that testimony can be given in a manner that provides appropriate protection for the identity of the official or other authorized person and that is not prejudicial to the conduct of any ongoing investigations, while still respecting the rights of the defence.

MODEL LEGISLATIVE PROVISION 16: ASSUMED IDENTITY[a]

1. For the purpose of this article, "assumed identity" means a false or altered identity created, acquired and/or used by law enforcement officials [or other persons authorized by [*insert name of law enforcement agency or judicial authority*]] to, for the purpose of investigating an offence to which this [Act/Law/Chapter …] applies, establish contact and build a relationship of trust with another person or infiltrate a criminal network.

2. The creation, acquisition and use of an assumed identity under paragraph 1 is only lawful if it has been authorized in accordance with this article.

3. The creation, acquisition and use of an assumed identity may be authorized by [*insert designated position holder or office, such as head and deputy head of competent law enforcement agency, prosecutor, investigative judge or preliminary investigation judge*] (the "authorizing authority") on application by a law enforcement official [or public prosecutor].

4. An application to create, acquire and use an assumed identity can be made by [*insert means needed to submit application*]. The authorizing authority must keep a written record of the application and the subsequent decision made under paragraph 6.

5. An application to create, acquire and use an assumed identity must state:
   (a) Details of the proposed assumed identity;
   (b) The duration for which the authorization is sought;
   (c) Whether the matter has been the subject of a previous application; and
   (d) [*Insert additional requirements as appropriate/required*].

6. After considering the application, the authorizing authority may:

(a) Authorize the creation, acquisition and use of an assumed identity unconditionally;

(b) Authorize the creation, acquisition and use of an assumed identity subject to conditions; or

(c) Refuse the application to create, acquire and use an assumed identity.

7. The authorizing authority must not approve the application unless satisfied on reasonable grounds that:

(a) An offence to which this [Act/Law/Chapter …] applies has been, is being or is likely to be committed;

(b) The nature and extent of the suspected criminal activity are such as to justify the use of an assumed identity;

(c) The assumed identity will not be used in such a way that a person is likely to be induced to commit an offence that the person would otherwise not have intended to commit; and

(d) Any conduct involved in the use of the assumed identity will not cause the death of or serious injury to any person and will not seriously endanger the life, health or safety of any person.

8. The authorization must specify the time period for which the creation, acquisition and use of the assumed identity is authorized, which shall in any case not be longer than [*insert appropriate time period*]. The authorization may be renewed on application.

9. The authorizing authority shall revoke an authorization granted under paragraph 6 if it is no longer satisfied, on reasonable grounds, of the matters referred to in paragraph 7.

10. The authorizing authority shall cancel an authorization granted under paragraph 6 upon receipt of a request for cancellation from the applicant.

11. A person acting under an authorization to create, acquire or use an assumed identity may request assistance from relevant officials or agencies to obtain evidence of an assumed identity, including identity and other supporting documents, that has been approved under this article. Notwithstanding any other laws, an official or agency may create or provide evidence of an assumed identity in response to a request under this article.

12. A law enforcement official or other authorized person who engages in conduct authorized in accordance with this article shall not be subject to criminal or civil liability for that conduct.

13. The authorizing authority shall report annually to [Parliament/a parliamentary committee/the public] on the number of applications received under this article, and the respective numbers of authorizations that were approved, refused, revoked and cancelled under this article.

[a] UNODC, *Model Legislative Provisions against Organized Crime*, 2nd ed., (Vienna, 2021), chap. III. For further information, including further commentary on the design of the model provision and additional relevant national legislative examples, please refer to that publication.

LEGISLATIVE EXAMPLE: AUSTRIA

National Security Police Act (1991)

[…]

Section 54a. Assumed identity

(1) Insofar as federal agencies, statutory entities that are agencies of indirect federal administration, and institutions under public law entities or mayors are authorized by law to issue legal documents, they are, at the request of the Federal Minister of the Interior, obliged to produce legal documents that falsely assume the identity of a person for the purpose of preventive protection of persons under section 22, paragraph 1, subparagraph 5, and for the purpose of undercover investigations (sect. 54, para. 3).

(2) The documents may only be used in legal dealings insofar as this is necessary to achieve the purposes set out in paragraph 1. The Federal Minister of the Interior must determine the purpose of issuing the documents and their scope of use in legal transactions in a deployment order. The National Security agencies must record any use of the documents in legal transactions and must retract them in case they are misused or if they are no longer needed for the fulfilment of tasks; documents for the preventive protection of persons under section 22, paragraph 1, subparagraph 5, must be retracted in accordance with the period of endangerment to be determined by the Federal Minister of the Interior depending on the circumstances of the individual case. Prior to issuing an assumed identity, the Federal Minister of the Interior must inform the person concerned about the use of the documents and that they will be retracted immediately in case of misuse.

(3) Documents that falsely assume the identity of a person must further be produced at the request of the Federal Minister of the Interior by the authorities named in paragraph 1 for the purpose of preparing and supporting the execution of surveillance (section 54 para. 2) and for the purpose of undercover investigations. Bodies of the National Security authorities may use such documents in legal transactions to acquire and manage equipment. Paragraph 2 applies to the determination of deployment orders and the duty to record.

[…]

Surveillance of persons

Under article 20 (1) of the Organized Crime Convention, States parties are required, if permitted by the basic principles of their national legal system and where appropriate, to allow for the use of surveillance of persons in their territory for the purpose of combating organized crime. Model legislative provision 17 proposes text for regulating the use of surveillance of persons.

MODEL LEGISLATIVE PROVISION 17: SURVEILLANCE OF PERSONS[a]

1. For the purpose of this article, "surveillance of persons" means the observation of persons, by law enforcement officials, for the purposes of investigating an offence to which this [Act/Law/Chapter …] applies that has been, is being or may be committed.

2. Surveillance of persons under paragraph 1 is only lawful if it has been authorized in accordance with this article.

3. The surveillance of persons may be authorized by [*insert designated position holder or office, such as head and deputy head of competent law enforcement agency; prosecutor, investigative judge or preliminary investigation judge*] (the "authorizing authority") on application by a law enforcement official [or public prosecutor].

4. An application to conduct surveillance of persons can be made by [*insert means needed to submit application*]. The authorizing authority must keep a written record of the application and the subsequent decision made under paragraph 6.

5. An application for authorization of surveillance of persons must state:
   (a) The duration for which the authorization is sought;
   (b) Whether the matter has been the subject of a previous application; and
   (c) [*Insert additional requirements as appropriate/required*].

6. After considering the application, the authorizing authority may:

(a) Authorize the surveillance of persons unconditionally;

(b) Authorize the surveillance of persons subject to conditions; or

(c) Refuse the application for the surveillance of persons.

7. The authorizing authority must not authorize the surveillance of persons unless satisfied on reasonable grounds that:

(a) An offence to which this [Act/Law/Chapter …] applies has been, is being or is likely to be committed;

(b) The nature and extent of the suspected criminal activity are such as to justify the surveillance of persons; and

(c) Any conduct involved in the surveillance of persons will not cause the death of or serious injury to any person and will not seriously endanger the life, health or safety of any person.

8. The authorization must specify the time period for which surveillance of persons is authorized, which shall in any case not be longer than [*insert appropriate time period*]. The authorization may be renewed on application.

9. The authorizing authority shall revoke an authorization granted under paragraph 6 if it is no longer satisfied, on reasonable grounds, of the matters referred to in paragraph 7.

10. The authorizing authority shall cancel an authorization granted under paragraph 6 upon receipt of a request for cancellation from the applicant.

11. A law enforcement official or other authorized person who engages in conduct authorized in accordance with this article shall not be subject to criminal or civil liability for that conduct.

[a] UNODC, *Model Legislative Provisions against Organized Crime*, 2nd ed., (Vienna, 2021), chap. III. For further information, including further commentary on the design of the model provision and relevant national legislative examples, please refer to that publication.

Electronic surveillance

States should also allow for the use of electronic surveillance for the purpose of combating pollution crimes. Electronic surveillance may include:

(a) Audio surveillance (through the use of means such as wiretapping, voice over Internet protocols and listening devices);

(b) Video and visual surveillance (such as hidden video surveillance devices, in-car video systems, body-worn video devices, use of thermal imaging/forward-looking infrared cameras, closed-circuit television, satellite imagery, drones and automatic licence plate recognition systems);

(c) Tracking surveillance (such as global positioning systems (GPS)/transponders, silent short messaging service (SMS) and other mobile phone tracking technologies, radio frequency identification devices, and biometric information technology, such as retina scans);

(d) Data surveillance (including both interception of content and traffic data and the use of means such as computer or Internet spyware and cookies, mobile phones and keystroke monitoring).

Electronic surveillance involving the interception of communications is particularly useful where an organized criminal group cannot be penetrated by an outsider or where physical infiltration or surveillance would represent an unacceptable risk to the investigation or the safety of investigators. Given its intrusiveness, electronic surveillance must be subject to strict judicial control and numerous statutory safeguards to prevent abuse.[122] Model legislative provision 18 suggests text for regulating the use of electronic surveillance.

[122] UNODC, *Legislative Guide*, para. 445.

MODEL LEGISLATIVE PROVISION 18: ELECTRONIC SURVEILLANCE[a]

1. For the purpose of this article, "electronic surveillance" means:

   (a) The monitoring, interception, copying or manipulation of messages, data or signals transmitted by electronic means; or

   (b) The monitoring or recording of activities by electronic means;

for the purposes of investigating an offence to which this [Act/Law/Chapter …] applies that has been, is being or may be committed.

2. Electronic surveillance under paragraph 1 is only lawful if it has been authorized in accordance with this article.

3. Electronic surveillance of persons can be authorized by [*insert designated position holder or office, such as head and deputy head of competent law enforcement agency; prosecutor, investigative judge or preliminary investigation judge*] (the "authorizing authority") on application by a law enforcement official [or public prosecutor].

4. An application to conduct electronic surveillance can be made by [*insert means needed to submit application*]. The authorizing authority must keep a written record of the application and the subsequent decision made under paragraph 6.

5. The application for authorization for electronic surveillance must state:

   (a) The type of electronic surveillance for which authorization is sought;

   (b) The duration for which the authorization is sought;

   (c) The nature of the information that it is expected to be collected;

   (d) The individuals, locations or devices that are the target of the surveillance;

   (e) The measures that are in place to ensure that the privacy and other human rights of individuals are protected as far as possible;

   (f) Whether the matter has been the subject of a previous application; and

   (g) [*Insert additional requirements as appropriate/required*].

6. After considering the application, the authorizing authority may:

   (a) Authorize the electronic surveillance unconditionally;

   (b) Authorize the electronic surveillance subject to conditions; or

   (c) Refuse the application for electronic surveillance.

7. The authorizing authority must not authorize the electronic surveillance unless satisfied on reasonable grounds that:

   (a) An offence to which this [Act/Law/Chapter …] applies has been, is being or is likely to be committed; and

   (b) The nature and extent of the suspected criminal activity are such as to justify the type of electronic surveillance for which authorization is sought.

8. The authorization must specify the time period for which electronic surveillance is authorized, which shall in any case not be longer than [*insert appropriate time period*]. The authorization may be renewed on application.

9. The authorizing authority shall revoke an authorization granted under paragraph 6 if it is no longer satisfied, on reasonable grounds, of the matters referred to in paragraph 7.

10. The authorizing authority shall cancel an authorization granted under paragraph 6 upon receipt of a request for cancellation from the applicant.

11. A law enforcement official or other authorized person who engages in conduct authorized in accordance with this article shall not be subject to criminal or civil liability for that conduct.

12. Information obtained through electronic surveillance must not be disseminated outside the [*insert name of relevant law enforcement agency or other competent authority*] without the approval of [the head of the law enforcement agency or other competent authority or their delegate]. Such approval may be given only for the purposes of:

(a) Preventing or prosecuting an offence to which this [Act/Law/Chapter …] applies;

(b) Enhancing international cooperation on the prevention or prosecution of [serious] crime; or

(c) Ensuring proper oversight of the activities of the agency.

13. The [head of the law enforcement agency] must ensure that information which has been collected through electronic surveillance authorized under this article but that is not relevant to the prevention or prosecution of an offence to which this [Act/Law/Chapter …] applies is destroyed as soon as practicable, and no later than [six] months after the expiry of the authorization.

14. The authorizing authority shall report annually to [Parliament/a parliamentary committee/the public] on the number of applications received under this article, and the respective numbers of authorizations that were approved, refused, revoked and cancelled under this article.

[a] UNODC, *Model Legislative Provisions against Organized Crime*, 2nd ed., (Vienna, 2021), chap. III. For further information, including further commentary on the design of the model provision and relevant national legislative examples, please refer to that publication.

SEIZURE

Under article 12 (1) of the Organized Crime Convention, States parties are required to adopt, to the greatest extent possible within their domestic legal systems, such measures as may be necessary to enable the confiscation of the proceeds of crime derived from offences covered by the Convention and also of property, equipment or other things used in or intended for use in offences covered by the Convention.[123] Under article 12 (2), States parties are further required to adopt such measures as may be necessary to enable the identification, tracing, freezing or seizure of any such item for the purpose of eventual confiscation.

Where not adequately provided for already under other laws, legislation concerning pollution crimes should provide for the seizure of such property and proceeds, as well as of evidence of the commission of an offence. When considering seizure provisions, States should keep in mind the need to balance the rights of defendants and bona fide third parties against the need to carry out effective investigations. This balance should take into account gender considerations, as those may influence the applicability of seizure and confiscation measures.[124] Where investigators are not provided with sufficient powers, they may not be able to collect evidence to investigate and prosecute pollution offences effectively. If investigators' powers of seizure are too broad, however, or exercised without sufficient supervision and accountability, there is a risk that they will be abused.

Furthermore, States need to ensure appropriate procedures for the safe handling of seized items, including equipment and pollutants, and appropriate channels for their disposal. Certain pollutants, or the equipment that produces them, may be difficult, and even dangerous, to store. States need to develop detailed guidelines for law enforcement regarding appropriate actions in cases of discovery and seizure of hazardous materials. It is likely that any seized hazardous materials would need to be transported to specially designated sites and facilities that can store, use or dispose of them safely.

Model legislative provision 19 provides text for regulating seizure. The text is based, in part, on article 12 of the Organized Crime Convention and the definition of seizure included in article 2 (f) of the Convention, but it goes further than the Convention by also addressing the seizure of evidence that would not otherwise fall within the categories liable to seizure under the Convention.

[123] See also the consideration of confiscation in chapter VII.

[124] UNODC, *Issue Paper: Organized Crime and Gender*, p. 35.

MODEL LEGISLATIVE PROVISION 19: SEIZURE

(1) For the purpose of this [Act/Law/Chapter …], to "seize" shall mean to temporarily prohibit the transfer, conversion, disposition or movement of property or temporarily assume custody or control of the property.

(2) A [*insert reference to relevant law enforcement and other officers*] may seize property that the officer reasonably suspects is evidence of the commission of an offence against this [Act/Law/Chapter …].

(3) A [*insert reference to relevant law enforcement and other officers*] may [on the basis of an order of [*insert reference to relevant court*] or the authorization of [*insert reference to relevant official*]] seize:

(a) Property, equipment or another instrumentality used in or destined for use in an offence against this [Act/Law/Chapter …];

(b) Proceeds of crime derived from an offence against this [Act/Law/Chapter …] or property resulting from the transformation or conversion of such proceeds, where such proceeds or property have been intermingled with proceeds or property acquired from a legitimate source; or

(c) Income or other benefits derived from proceeds or property referred to in paragraph (3) (b).

[…]

LEGISLATIVE EXAMPLE: ZAMBIA

The Environmental Management Act (2011)

[…]

Powers of inspectors

15. (1) […]

(2) […]

(3) An inspector may seize and detain any substance, material, matter, vehicle, aircraft, boat or other conveyance where the inspector has reasonable grounds to believe that:

(a) the substance, material, matter, vehicle, aircraft, boat or other conveyance has been used or is being used for the commission of an offence under this Act;

(b) the substance, material, matter, vehicle, aircraft, boat or other conveyance is causing or is likely to cause pollution contrary to this Act; or

(c) the vehicle, aircraft, boat or other conveyance is transporting or hoarding any matter, material, substance or article causing or likely to cause pollution contrary to the provisions of this Act.

[…]

Chapter V.

INTERNATIONAL COOPERATION

Pollution crimes may be transnational in nature, such as where pollutants are trafficked between different States or where hazardous pollutants are produced in one State but disposed of in another. Some pollution crimes may also involve forms of transboundary harm, where the pollution is emitted in one State but spreads across borders and causes harm in other States.[125] In such cases, effective legal frameworks and international cooperation between law enforcement and criminal justice authorities of different States will often be key to successful investigations and subsequent prosecutions. International cooperation measures should moreover be human rights-based and gender-responsive. [126]

International cooperation broadly refers to the sharing of information, resources and personnel, as well as the provision of assistance, for achieving common goals. Cooperation between States may occur formally or informally. Formal cooperation may be based on the Organized Crime Convention or other multilateral or bilateral treaties.

Under the Convention, States parties are required to take steps or consider taking steps to implement a number of measures for enabling and facilitating international cooperation in cases falling within the scope of the Convention. Such measures include mutual legal assistance,[127] extradition,[128] law enforcement cooperation,[129] joint investigations,[130] transfer of criminal proceedings[131] and transfer of sentenced persons.[132] In addition to employing such measures, States should also make appropriate use of informal cooperation and communication channels, which can complement formal cooperation measures.

This chapter provides legislative guidance for establishing provisions concerning mutual legal assistance, extradition, law enforcement cooperation and joint investigations. As with other chapters of this guide, model legislative provisions are included where appropriate to assist with the implementation of the principles.

[125] See UNEP, *Guide on Ambient Air Quality Legislation* (Nairobi, 2023).

[126] For further information about human rights-based and gender-responsive approaches in international cooperation and mutual legal assistance among States, please refer to UNODC, *Issue Paper: Organized Crime and Gender*, pp. 39–43.

[127] Organized Crime Convention, art. 18.

[128] Ibid., art. 16.

[129] Ibid., art. 27.

[130] Ibid., art. 19.

[131] Ibid., art. 21.

[132] Ibid., art. 17.

TRANSNATIONAL POLLUTION CRIME

Several case studies reported by INTERPOL have identified organized criminal groups suspected of pollution crime operating across international borders. In one case, a criminal group was moving pollutants across 18 different States in Europe, West Africa, South America and the Caribbean. In another, a Pakistani criminal group based in Dubai managed value-added tax frauds with carbon dioxide emission allowances in the Kingdom of the Netherlands.[a]

[a] INTERPOL, *The Nexus between Organized Crime and Pollution Crime*, Strategic Report (Lyon, France, 2022), p. 26.

MUTUAL LEGAL ASSISTANCE

Mutual legal assistance in criminal matters is a process by which States seek and provide assistance in gathering evidence for use in criminal cases. Through mutual legal assistance, witnesses can be interviewed or summoned, persons can be located, evidence can be produced, objects and sites can be examined and analysed, and warrants for search and seizure can be issued and executed in foreign jurisdictions.[133]

Mutual legal assistance usually relies on bilateral or multilateral agreements, although some States provide such assistance without any underlying agreement, purely on the basis of the goodwill principles of reciprocity and comity.

Article 18 of the Organized Crime Convention establishes a framework for mutual legal assistance between States parties in relation to serious crimes and offences established under the Convention. Furthermore, States parties are encouraged to consider, where necessary, concluding bilateral or multilateral agreements or arrangements to give practical effect to or enhance the provisions of article 18.

States parties should ensure that domestic mutual legal assistance systems established under bilateral and multilateral treaties apply to investigations, prosecutions and judicial proceedings in relation to pollution crimes. Model legislative provision 20 proposes text on the application of mutual legal assistance provisions against such criminal activity.

MODEL LEGISLATIVE PROVISION 20: APPLICATION OF MUTUAL LEGAL ASSISTANCE PROVISIONS

The provisions on mutual legal assistance contained in [*insert reference to national legislation on mutual legal assistance*] and in any applicable bilateral or multilateral treaty to which [*insert name of the State*] is a party shall apply to investigations, prosecutions and judicial proceedings in relation to the offences established under this [Act/Law/Chapter…].

For further information about mutual legal assistance, as well as practical step-by-step suggestions on how to best initiate, respond to and follow through on mutual legal requests, please refer to the UNODC *Manual on Mutual Legal Assistance and Extradition*.

[133] See also UNODC, Sharing Electronic Resources and Law on Crime (SHERLOC), Legislative Guide, Chapter V, Section B, "Mutual legal assistance in criminal matters". Available at www.unodc.org/cld/v3/sherloc/legislative-guide/index.html.

EXTRADITION

Extradition is the formal process whereby one State requests from another State the return of a person accused or convicted of a crime for that person to stand trial or serve a sentence in the requesting State. Arrangements for extradition can be critical for the effective prosecution of pollution crime.

Extradition is addressed in article 16 of the Organized Crime Convention. The article provides a basis for the extradition of persons sought in respect of offences established in accordance with the Convention and those involving serious crimes, where such offences involve an organized criminal group. It applies to cases where the offence for which extradition is sought is punishable under the domestic law of both the requesting and requested State. In that regard, what matters is that the conduct for which extradition is sought is criminalized under the laws of both States, regardless of the formal naming of such offences.[134] Article 16 is intended to complement existing bilateral and multilateral extradition treaties[135] and can be relied upon as a basis for extradition for offences that it covers where no extradition treaty is in force between the States in question.[136]

Extradition is a complex area of law and most States have existing frameworks for extradition. In recognition of such complexities, the present guide does not attempt to provide a comprehensive examination of legal issues relating to extradition or model legislative provisions for establishing a complete legal framework for extradition. Some of the basic legal issues relating to extradition that a State must consider when introducing legislation for combating pollution crime are, however, addressed.

The key legal issue with respect to extradition is the designation of pollution crimes as extraditable offences. This does not mean, however, that all pollution crimes must be extraditable. Some of the offences contained in the guide may not be deemed by a State to be sufficiently serious to warrant extradition. This is a matter for each State to determine in accordance with its legal system and values.

Two approaches have historically been used for designating offences as extraditable offences: the "list approach" and the "minimum penalty approach". Under the list approach, whether or not an offence is extraditable is determined by reference to a list of extraditable offences contained in the relevant extradition treaty and in implementing legislation. Under the minimum penalty approach, whether or not an offence is extraditable is determined by reference to the maximum or, in some cases, the minimum penalty applicable to the offence. Any offence with a maximum (or, as appropriate, minimum) penalty at or above a certain threshold is liable to be an extraditable offence.

States using the list approach should take steps to ensure that pollution crimes that warrant extradition are included in lists of extraditable offences in relevant bilateral and multilateral extradition treaties and in any relevant implementing legislation. States using the minimum penalty approach should ensure that pollution crimes legislated in line with this guide, and considered by the State to be of sufficient severity, meet the minimum requirements for extradition under their bilateral and multilateral extradition treaties.

States should also ensure that extradition legislation that applies to pollution crimes is consistent with the "extradite or prosecute" (*aut dedere aut judicare)* principle outlined in article 16 (10) of the Organized Crime Convention. Pursuant to that article, in relation to an offence covered by the Convention, a State party shall, at the request of a State party seeking the extradition of an alleged offender, submit the case to its competent authorities for the purpose of prosecution, where the requested State party refuses to extradite the alleged offender solely on the basis that he or she is a national of that State.

[134] See also UNODC, *Manual on Mutual Legal Assistance and Extradition* (2012), para. 103.

[135] States may consider entering into new arrangements, in addition to bilateral and multilateral treaties on extradition to which they are a party, by applying the Model Treaty on Extradition adopted by the General Assembly in its resolution 45/116 as amended by resolution 52/88.

[136] Organized Crime Convention, art. 16 (4).

LAW ENFORCEMENT COOPERATION

International cooperation between law enforcement agencies is an integral element of combating pollution crimes and the involvement of transnational organized criminal groups in such crimes. Real-time sharing of information, provisions to extend operational powers across borders and the posting of liaison officers are just some of the measures that can enhance responses to those crimes. Effective cooperation can be carried out through formal and informal channels, and officials should be adequately trained in the appropriate use of such options. Lack of awareness of the means and methods of cooperation is a key barrier to such collaboration.

International cooperation among law enforcement agencies is addressed in article 27 of the Organized Crime Convention, with States parties being required to closely cooperate with each other to enhance the effectiveness of law enforcement action. The specific measures required under article 27 include establishing channels of communication between competent authorities, agencies and services in order to facilitate the secure and rapid exchange of information related to organized crime. The article also calls for cooperation among States parties in investigating persons, property and proceeds involved in organized crime, sharing of necessary items and substances for analytical or investigative purposes, and the posting of liaison officers.

A model for legislating such forms of international law enforcement cooperation is provided in model legislative provision 21. The provision is primarily relevant to those States in which a legal mandate is required for investigative agencies to cooperate with international counterparts. In other States such a provision may not be necessary but could be desirable for clarifying and enhancing existing mechanisms for law enforcement cooperation.

MODEL LEGISLATIVE PROVISION 21: INTERNATIONAL LAW ENFORCEMENT COOPERATION

1. [Notwithstanding relevant data protection and privacy laws and other confidentiality provisions applicable to personal data], [*insert name of relevant national law enforcement agency*] may provide to a foreign law enforcement agency or an international or regional law enforcement agency information concerning all aspects of offences to which this [Act/Law/Chapter …] applies [, including links with other criminal activities].

2. [*Insert name of relevant national law enforcement agency*] may cooperate with a foreign law enforcement agency or an international or regional law enforcement agency, with regard to:

(a) Conducting inquiries concerning:

(i) The identity, whereabouts and activities of persons suspected of involvement in offences to which this [Act/Law/Chapter …] applies, or the location of other persons concerned;

(ii) The movement of proceeds of crime or property derived from the commission of such offences;

(iii) The movement of property, equipment or other instrumentalities used or intended for use in the commission of such offences;

(b) Providing items, substances, documents or records for analytical or investigative purposes;

(c) Seconding or exchanging personnel, including by posting liaison law enforcement officials or liaison magistrates and by making experts available;

(d) Exchanging information on specific means and methods used by organized criminal groups, including routes and conveyances and the use of false identities, altered or false documents or other means of concealing their activities;

(e) [Joint investigations;]

(f) Witness protection, including relocation of a protected witness; and

(g) Other administrative assistance.

3. [*Insert name of relevant national law enforcement agency*] may enter into an agreement with a foreign law enforcement agency or an international or regional organization to enhance law enforcement cooperation for preventing, identifying and combating the offences to which this [Act/Law/Chapter …] applies.

Under article 27, States are also obliged to consider entering into multilateral agreements or arrangements regarding direct cooperation. In that context, it is likely that many States are already parties to various such agreements or arrangements, which should be used to the fullest extent possible for combating pollution crime. INTERPOL Blue Notices and diffusion communications are just two examples of existing mechanisms for requesting and sharing information about potential offences.

Care should also be taken to ensure that national legislation is adequately adapted to dealing with evidential issues that may arise from international cooperation in cases involving the offences covered by this guide. Those include, among other possible issues, the admissibility of evidence obtained from foreign law enforcement agencies through mutual legal assistance and international cooperation, and the transmission of evidence to forensic services located in foreign jurisdictions.

JOINT INVESTIGATION

Joint investigations carried out by law enforcement agencies of multiple States can be effective in addressing pollution crimes, especially in complex cases that involve offences in several jurisdictions. The term "joint investigation" encompasses a range of collaborative efforts in the investigation of crime. Such efforts may generally be classified as involving joint parallel investigations or joint investigative teams. "Joint parallel investigations" refers to non-co-located but closely coordinated investigations undertaken in two or more States with a common goal. "Joint investigative teams" are teams of law enforcement authorities, prosecutors, judges or investigative judges that are established pursuant to an agreement between the competent authorities of two or more States for a limited duration and for the specific purpose of conducting criminal investigations in one or more of the States involved.[137] Joint investigative teams may further be classified as either passively or actively integrated teams.[138] A passively integrated joint investigative team could be, for example, one where a foreign law enforcement officer is integrated with officers from the host State in an advisory or consultancy role or in a supportive role based on the provision of technical assistance to the host State. An actively integrated joint investigative team would include officers from at least two jurisdictions with the ability to exercise equivalent operational powers, or at least some operational powers, under host State control in the territory or jurisdiction where the team is operating.[139]

Under article 19 of the Organized Crime Convention, States parties are called on to consider concluding agreements or arrangements with other States to establish frameworks for conducting joint investigations. That article provides that, in the absence of such frameworks, joint investigations may be undertaken on a case-by-case basis, although that will depend on whether or not joint investigations are possible under the laws of the individual States in the absence of such a framework agreement.

Model legislative provision 22 is intended to provide a legal basis for a relevant national authority to conclude agreements or arrangements for conducting joint investigations, either through the establishment of a joint investigative body or through the undertaking of joint investigations on a case-by-case basis. The domestic laws of most States already permit such joint activities. For those few States whose laws do not permit joint investigations, the model provision will be a sufficient source of legal authority for case-by-case cooperation in that regard.

[137] See also Second Additional Protocol to the European Convention on Mutual Assistance in Criminal Matters, art. 20; Council Framework Decision 2002/465/JHA on joint investigative teams; and the Model Agreement on the Establishment of a Joint Investigation Team, annexed to Council resolution 2010/C 70/01 of 26 February 2010.

[138] CTOC/COP/WG.3/2020/2, paras. 6–8.

[139] Ibid., para. 51.

MODEL LEGISLATIVE PROVISION 22: JOINT INVESTIGATIONS

1. For the purpose of investigating offences to which this [Act/Law/Chapter …] applies, the [*insert name of relevant national law enforcement agency and/or prosecution or judicial authority, as appropriate*] may, in relation to matters that are the subject of investigations [or prosecutions or judicial proceedings] in one or more States, conclude agreements or arrangements with one or more foreign law enforcement agencies [or prosecution or judicial authorities] or relevant international or regional law enforcement or judicial cooperation organizations regarding either or both of the following:

(a) The establishment of a joint investigative body;

(b) The undertaking of joint investigations on a case-by-case basis.

2. Where an agreement or arrangement under paragraph 1 has been made, the [*insert name of relevant law enforcement agency or public prosecution or judicial authority*] may engage in joint investigations with the relevant State or international or regional law enforcement or judicial cooperation organizations.

3. Evidence collected outside of the territory of [*insert name of State*] pursuant to a joint investigation under this article shall be admissible in judicial proceedings as if such evidence had been collected within the territory of [*insert name of State*].

Previous work carried out by UNODC has identified several legal impediments related to the establishment of joint investigations. These include the lack of a clear framework or specific legislation for the establishment of such investigations, a lack of clarity regarding control of operations, and a lack of clarity regarding liability for the costs of joint investigations. Such issues should be considered by legislators when drafting the provisions relating to joint investigations. Legislation providing for joint investigations in the context of illegal pollution must ensure that each of these issues is clearly addressed in order for joint investigations to operate effectively.

A clear legal framework is particularly important in the case of actively integrated joint investigative teams and joint investigative bodies, as they may involve the operational deployment of officers from foreign jurisdictions. Although joint investigative teams and joint investigative bodies have, in some cases, been established in the absence of specific domestic legislation concerning such teams or bodies, through the use of international conventions and other rules of domestic legislation, States should consider whether legislation is needed to deal with such matters as:

(a) The conferral of powers on foreign law enforcement officers or, where appropriate, public prosecutors or investigative judges;

(b) Decisions regarding who has responsibility for operational control;

(c) Gathering of evidence by foreign law enforcement officers and its admissibility in any proceedings;

(d) The possibility for mutual legal assistance procedures to be dispensed with in relation to evidence obtained pursuant to a joint investigation;

(e) The civil and criminal liabilities of foreign law enforcement officers and other personnel involved in a joint investigation.

Model legislative provision 23 addresses two of those issues, namely the conferral of powers on foreign officials and the liabilities of seconded officials.

Additional considerations include the following:

(a) The need to ensure clarity with respect to supervision and the roles and responsibilities of seconded officers;

(b) The need to clarify which specific activities seconded officers are permitted to perform.

A further issue to consider is whether or not officials who engage in conduct authorized by a joint investigation are criminally or civilly liable for that conduct. Under paragraph 2 of model provision 23, certain protections would be conferred on seconded foreign officials equivalent to those enjoyed by the corresponding national officials.

MODEL LEGISLATIVE PROVISION 23: CONFERRAL OF POWERS ON FOREIGN OFFICIALS IN JOINT INVESTIGATIONS

1. Where [*insert name of State*] has an agreement covering conferral of powers in joint investigations with a foreign State, [*insert name of competent authority*] may confer upon law enforcement officials [or public prosecutors or investigative judges] of that State one or more of the following powers, which they can then exercise in [*insert name of State*], subject to [*insert name of State*] law:

(a) [The power to receive information and take statements, in accordance with the law of the foreign State];

(b) [The power to record charges in the official record, including in a form required by their national law]; and

(c) [The authority to undertake surveillance of persons [and/or] undercover operations].

2. An official on whom any of the powers specified under paragraph 1 has been conferred shall be entitled to the same protections as an equivalent official of [*insert name of State*] under [*insert name of State*] law.

Chapter VI.

PROSECUTION

Combating pollution crimes requires not only having substantive criminal offences defined but also having effective criminal procedures in place. Two aspects of those procedures – investigation and international cooperation – are addressed above. The present chapter concerns the aspect of prosecution.

PRETRIAL DETENTION

Persons charged with pollution offences cannot be brought to justice if they evade the jurisdiction of prosecuting and judicial authorities. It is imperative that States take steps, consistent with any applicable constitutional or human rights frameworks, to prevent offenders at risk of absconding from fleeing the country prior to trial or sentencing or otherwise seeking to evade justice. In some cases, the flight risk of an offender may require that the offender be detained pending trial. In other cases, less coercive measures, such as the confiscation of an offender's passport, may be sufficient to mitigate flight risk.

Under article 11 (3) of the Organized Crime Convention, States parties are required, with respect to the offences established under the Convention, to take appropriate measures to ensure the presence of the defendant in criminal proceedings. The choice of measures should also take into account the capacity of the suspect to undermine the administration of justice, such as by tampering with evidence or influencing witnesses. Whichever measures are used, they must give due regard to the rights of the defence. To the extent that pretrial measures infringe on the human rights of an accused person, this must be done in a way that complies with requirements of legality, necessity and proportionality.

Model legislative provision 24 refers to pretrial detention of a person after he or she has been arrested and charged with an offence.

MODEL LEGISLATIVE PROVISION 24: PRETRIAL DETENTION

1. Where a person has been charged with an offence to which this [Act/Law/Chapter/…] applies, the court may order pretrial detention if one of the grounds listed in paragraph 2 exists.

2. The court may order pretrial detention if it is satisfied that there are serious indications of the accused's guilt and that there is an unacceptable risk that the person may, if not detained:

(a) Fail to appear at subsequent criminal proceedings;

(b) Influence a witness, tamper with evidence or otherwise obstruct the course of justice;

(c) Commit a further offence; or

(d) Endanger the life, health or safety of a person who is claimed to be a victim of the offence with which the person is charged, or that of any other person.

3. An order for the pretrial detention of a person under this article must not exceed a period of [*insert time limit*]. The court may extend the period of pretrial detention under paragraph 2 of this article on application by a prosecutor. The total period of pretrial detention must not exceed [*insert time limit*].

4. Pretrial detention must not be ordered, maintained or extended if the objectives of the detention may be achieved through less severe means. In lieu of pretrial detention, the court may impose conditions on the [person/accused] pending trial or appeal to ensure their presence at the subsequent criminal proceedings and to ensure the administration of justice, including:

(a) [Seizure/confiscation] of travel or other identity documents of the person;

(b) Notification of the relevant authorities at border control points;

(c) Holding of a surety bond;

(d) Restrictions on the movement of the person, such as home confinement or electronic monitoring of movements;

(e) Other measures considered by the court to be necessary and proportionate to prevent the person from influencing witnesses, tampering with evidence or otherwise obstructing the course of justice.

PROSECUTORIAL DISCRETION

In some States, prosecutors are afforded discretion as to whether or not to prosecute offences, either by law, administrative procedures or policy. In other States, such discretion is not permitted and there is an obligation to prosecute where there is sufficient evidence of an offence. For States that afford discretion to prosecutors, conditions on the exercise of that discretion often include factors such as the community interest in prosecuting or not prosecuting an offence, the likelihood of conviction, and the individual circumstances of the offender. Prosecutions may also be more frequently brought when the crime in question is of particular public concern. At the international level, for example, the case selection and prioritization criteria of the International Criminal Court state the following:

> The Office [of the Prosecutor] will give particular consideration to prosecuting Rome Statute crimes that are committed by means of, or that result in, inter alia, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land.[140]

Prosecutorial discretion may relate not only to the decision to initiate and continue a prosecution but also to requests for pretrial detention, plea bargaining arrangements, and whether or not multiple offenders are tried together. No matter how, in what context and to what degree discretion is exercised, the public should have access to information on how such decisions are reached.

[140] International Criminal Court, Office of the Prosecutor, "Policy paper on case selection criteria and prioritisation" (15 September 2016), p. 14.

It should be noted that some States do not limit the ability to prosecute to government officials. Private persons or non-governmental organizations may also be able to bring prosecutions where government prosecutors choose not to do so. Decisions not to prosecute can also potentially be challenged in some jurisdictions, including through judicial review.

Given the different ways in which States approach prosecutorial discretion, this guide does not propose a model provision on the matter. Nevertheless, for States that do afford prosecutors discretion as to whether or not to initiate and continue prosecutions, there is a need to ensure consistency in prosecutorial decision-making as to when to initiate prosecutions, maintain or drop prosecutions, and accept plea bargains. Where applicable, States should adopt appropriate measures to ensure consistency, such as legislative or non-legislative guidelines for the exercise of discretion.[141] Environmental enforcement and prosecution guidelines and policies, in particular, can be useful tools for informing stakeholders regarding the ways in which regulators and prosecutorial authorities approach their statutory functions, and for improving compliance.

Where discretion is afforded to prosecutors, States should also bear in mind the potential impact of refusals to prosecute on deterrence of pollution crimes. If criminal laws are not regularly enforced, or if only lesser offences and penalties are regularly pursued, this is likely to encourage offenders, as well as potential offenders, to assume that they can act with impunity.

ENVIRONMENTAL PROSECUTION GUIDELINES

In Australia, the Environmental Protection Authority of the State of New South Wales publishes prosecution guidelines. Under the heading of "The decision to prosecute", the guidelines state the following with regard to discretion:

[…]

2.2.6 Sufficiency of evidence is therefore not the sole criterion for prosecution because:

a. not every breach of the criminal law is automatically prosecuted – the laying of charges is discretionary; and

b. the dominant factor in the exercise of that discretion is the public interest.

2.2.7 The Prosecution Policy of the Commonwealth states:

The decision whether or not to prosecute is the most important step in the prosecution process…The criteria for the exercise of this discretion cannot be reduced to something akin to a mathematical formula; indeed it would be undesirable to attempt to do so. The breadth of the factors to be considered in exercising this discretion indicates a candid recognition of the need to tailor general principles to individual cases.

2.2.8 In criminalizing breaches of environmental laws, a primary, though not the sole, aim of Parliament is deterrence. By extending criminal liability to a wide range of people who may be involved in some way with environmental breaches (such as owners of substances, owners of containers, directors and managers of corporations), the legislation generates increased awareness and responsibility for environmental performance both vertically within corporate hierarchies and laterally across a broad spectrum of those with responsibility for preventing environmental harm. Potential liability, however, does not mean automatic prosecution.

[...]

Factors to be considered

2.2.11 Factors which alone or in conjunction arise for consideration in determining whether the public interest requires a prosecution include, but are not limited to:

Offence related factors

a. the seriousness or, conversely, the triviality of the alleged offence or that it is of a 'technical' nature only;

b. the harm or potential harm to the environment caused by the offence;

[141] See also guideline 17 of the Guidelines on the Role of Prosecutors, adopted by the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held in Havana from 27 August to 7 September 1990.

ENVIRONMENTAL PROSECUTION GUIDELINES (*CONTINUED*)

c. the harm or potential harm to human health, and/or unreasonable interference or potential unreasonable interference with human comfort or repose;

d. whether the breach is a continuing or repeat offence;

e. the prevalence of the alleged offence and the need for deterrence, both specific and general;

f. the length of time since the alleged offence;

g. whether, if legislative provisions have changed, the conduct giving rise to the alleged offence is no longer unlawful;

Alleged offender related factors

h. the degree of culpability of the alleged offender in relation to the offence;

i. the antecedents of the alleged offender and whether the alleged offender had been dealt with previously by prosecutorial or non-prosecutorial means;

j. whether the alleged offender had been prosecuted by another agency for a related offence, arising from the incident for which the Environmental Protection Authority is considering prosecution;

k. the age, physical or mental health or special infirmity of the alleged offender(s);

l. whether the consequences of any conviction would be unduly harsh or oppressive;

m. whether the alleged offender acted in accordance with Environmental Protection Authority advice or advice from another government agency;

n. whether or not the alleged offender is willing to co-operate or has cooperated in the investigation or prosecution of others;

Sentencing factors

o. the likely outcome in the event of a finding of guilt, having regard to the sentencing options available to the court;

p. whether the issuing of a court order is necessary to prevent a recurrence of the offence or to recompense for the harm caused by the offence;

Other factors

q. any mitigating or aggravating circumstances;

r. whether prosecution of the alleged offence would assist in resolving an ambiguity in the law;

s. environmental justice principles such as any disproportionate impact of an alleged offence on disadvantaged communities or other vulnerable persons;

t. the availability and efficacy of any alternatives to prosecution;

u. whether there are counterproductive features of the prosecution;

v. the length and expense of a court hearing;

w. any precedent which may be set by instituting or by not instituting proceedings;

x. the strategic value of the proposed prosecution;

y. whether proceedings are to be brought against others arising out of the same incident; and

z. the age, physical or mental health or special infirmity of the alleged offenders or witnesses.

2.2.12 The Environmental Protection Authority adopts the cardinal principle that a prosecution must not be brought for improper purposes. A decision whether or not to prosecute will not be influenced by:

a. any elements of discrimination against the alleged offender or any other person involved – for example, race, religion, sex, nationality, social affiliations, political affiliations or political associations, activities or beliefs of the alleged offender or any other person involved;

b. personal empathy or antipathy towards the alleged offender;

c. the political or other affiliations of those responsible for the prosecution decision; or

d. subject to any public interest consideration set out at paragraph 2.2.8, the possible advantage or disadvantage to the government or any political party, group or individual.

ALTERNATIVES TO TRIAL

In some jurisdictions, law enforcement and other authorities may exercise discretion to resolve cases by using alternatives to trial, such as formal cautions, enforcement notices, diversion programmes and deferred prosecution agreements. Environmental protection agencies will often choose from a range of escalating regulatory tools in responding to an incident of unauthorized pollution. These range from lower-level interventions, such as advice and education on compliance, to moderate-level interventions, such as remedial directions and enforcement notices, and to higher-level interventions including civil proceedings and criminal prosecution.[142] Such an approach is in line with the responsive regulation approach, whereby there is presumption towards lower-level interventions unless they fail. Moderate-level and higher-level interventions can then be implemented as necessary.[143] This does not mean, however, that criminal prosecution must always be the last resort; for serious instances of pollution crime an immediate criminal law response may well be justified.

Alternatives to trial (that is, responses that stop short of criminal prosecution) may be particularly appropriate in cases of minor or first-time offending but may be inappropriate in relation to significant or repeat offending. Factors that may be relevant to determining whether an alternative to trial should be pursued may include the motives of the offender, which can better be understood through the application of a gender-responsive lens; the environmental and other impacts of the offence; the need for specific or general deterrence; the extent to which the offender cooperated during the investigation or provided information leading to the prosecution of other offenders; the degree of expressed remorse; any attempts to mitigate or remediate the impacts of the offending or to compensate victims; any measures put in place by the offender to prevent future breaches; and the offender's personal circumstances.

Two alternatives to trial will be discussed here: enforcement notices and deferred prosecution agreements. States may also wish to consider other alternatives, such as environmental remediation, which are addressed in chapter VIII.

Enforcement notices can typically be issued by competent environmental authorities. They can be issued when the authority believes that a natural or legal person is breaching or will breach an environmental law or regulation or a condition of a licence, permit, certificate or authorization that has been issued. Such notices usually specify the steps that must be taken to remedy the breach or anticipated breach. Provision should be made to allow recipients to appeal the issuance of enforcement notices. Failure to comply with an enforcement notice may constitute an offence.

[142] See, for example, Environment Protection Authority Victoria, "Compliance and enforcement policy", publication No. 1798 (Victoria, Australia, 2021), p. 7.

[143] See Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate*, Oxford Socio-Legal Study Series (Oxford, Oxford University Press, 1992). See also Robert Baldwin and Julia Black, "Really responsive regulation", *Modern Law Review*, vol. 71, No. 1 (January 2008).

LEGISLATIVE EXAMPLE: UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Environmental Protection Act (1990)

[…]

Section 13. Enforcement notices

(1) If the enforcing authority is of the opinion that the person carrying on a prescribed process under an authorization is contravening any condition of the authorisation, or is likely to contravene any such condition, the authority may serve on him a notice ("an enforcement notice").

(2) An enforcement notice shall:

(a) State that the authority is of the said opinion;

(b) Specify the matters constituting the contravention or the matters making it likely that the contravention will arise, as the case may be;

(c) Specify the steps that must be taken to remedy the contravention or to remedy the matters making it likely that the contravention will arise, as the case may be; and

(d) Specify the period within which those steps must be taken.

(3) The Secretary of State may, if he thinks fit in relation to the carrying on by any person of a prescribed process, give to the enforcing authority directions as to whether the authority should exercise its powers under this section and as to the steps which are to be required to be taken under this section.

(4) The enforcing authority may, as respects any enforcement notice it has issued to any person, by notice in writing served on that person, withdraw the notice.

[…]

Section 23. Offences

(1) It is an offence for a person:

[…]

(c) to fail to comply with or contravene any requirement or prohibition imposed by an enforcement notice or a prohibition notice;

[…]

In relation to pollution offences, deferred prosecution agreements may be offered to defendants who agree to fulfil certain conditions, such as paying compensation for and repairing environmental harm (noting that any compensation needs to be adequate to repair the harm caused). States making use of the possibility of deferred prosecution agreements for pollution crimes and related offences should ensure that the laws or guidelines regulating their use ideally prohibit agreements to close cases solely on the basis of monetary payment by the offender. Monetary payments from members of organized criminal groups or legal persons involved in pollution offences may be of illicit origin. There is also a danger that organized criminal groups will simply incorporate payments under deferred prosecution agreements as an operating cost of involvement in criminal activity without those payments having any deterrent effect on their criminal conduct.

LIMITATION PERIODS

In some jurisdictions, the commencement of a prosecution is limited by periods of time known as limitation periods. These are often included in legislation known as "statutes of limitations". In other jurisdictions, limitation periods do not apply to criminal offences or may only apply to specific offences. Where States parties do impose limitation periods on the prosecution of criminal offences, they are required, under article 11 (5)

of the Organized Crime Convention, to ensure that limitation periods applying to offences covered by the Convention are sufficiently long. Legislation should also be clear as to the point in time at which the limitation period starts to run (for example, whether it is based on the time of commission of the offence or the time of its discovery) and the circumstances in which the running of time on a limitation period may be suspended, such as where the offender has deliberately sought to evade the administration of justice.

In some States, the running of time on a limitation period can be suspended while evidence is gathered from abroad. States should consider whether such a provision would be desirable in their legal system, taking into account the length of any limitation periods applicable to pollution offences and potential difficulties in gathering evidence from abroad. Whichever approaches to limitation periods are taken by a State, the State should ensure that its prosecutorial process is sufficiently streamlined to bring prosecutions to trial in a timely fashion.

Model legislative provision 25 proposes text setting out the applicable limitation period for pollution offences. Paragraph 2 provides for the suspension of the running of time on such a limitation period where the suspect has deliberately sought to evade the administration of justice.

MODEL LEGISLATIVE PROVISION 25: LIMITATION PERIOD

1. Subject to paragraph 2, the limitation period for criminal proceedings for offences to which this [Act/Law/Chapter …] applies is [*insert time period*] after the discovery of the offence.

2. Where a person suspected of an offence to which this [Act/Law/Chapter …] applies deliberately seeks to evade the administration of justice, the limitation period in paragraph 1 shall not run for the duration of such evasion.

LEGISLATIVE EXAMPLE: EUROPEAN UNION

Directive (EU) 2024/1203 of the European Parliament and of the Council of 11 April 2024 on the protection of the environment through criminal law and replacing Directives 2008/99/EC and 2009/123/EC

[…]

Article 11

Limitation periods

1. Member States shall take the necessary measures to provide for a limitation period that enables the investigation, prosecution, trial and adjudication of criminal offences referred to in articles 3 and 4 for a sufficient period of time after the commission of those criminal offences, in order for those criminal offences to be tackled effectively.

[…]

2. The limitation period referred to in paragraph 1, first subparagraph, shall be as follows:

(a) at least 10 years from the commission of a criminal offence punishable by a maximum term of imprisonment of at least 10 years

(b) at least five years from the commission of a criminal offence punishable by a maximum term of imprisonment of at least five years;

(c) at least three years from the commission of a criminal offence punishable by a maximum term of imprisonment of at least three years.

[…]

Chapter VII.

PENALTIES AND SENTENCING

The offences discussed in this guide should be subject to appropriate penalties or sanctions.[144] It may be noted that environmental offences have often tended to attract low penalties. Pollution crimes commonly have low maximum sentences and courts have traditionally seemed reluctant to impose serious penalties on offenders.[145] Some experts have observed that making the punishment fit the crime for environmental offences is difficult given that the identity of the victim is the all-but-invisible ecosystem, even though humans are often directly affected by pollution crime.[146]

Describing and accurately measuring environmental harm from pollution can be difficult and defies easy quantification. Such problems can be remedied in various ways including, for example, through the use of specialist courts, legislation of higher maximum penalties, and judicial and prosecutorial education programmes on the harm caused by pollution offences.

Given that approaches to setting penalties for offences and sentencing offenders vary greatly between States, applicable maximum penalties are not specified in the model legislative provisions in this guide, as those will need to be determined by each State in accordance with its criminal justice system, culture and other relevant local considerations.

In order to assist in drafting appropriate legislative provisions concerning penalties and sentencing in the context of pollution crimes, and in ensuring effective and appropriate sentencing under such provisions, this chapter addresses some of the key issues to be taken into account by States in that context. General considerations relating to sentencing will be discussed first, followed by a review of relevant types of sanctions.

[144] The meaning of the terms "penalty" and "sanction" can differ from one legal system to another. In some legal systems, "penalty" may refer to criminal sanctions, or criminal sanctions of a punitive nature. In other legal systems, the term may have a broader meaning, or a meaning synonymous with "sanction". For the purposes of this guide, the two terms are used interchangeably.

[145] Bricknell, *Environmental Crime in Australia*, p. 19.

[146] Rosemary Martin, "Alternative sentencing in environment protection: making the punishment fit the crime", *Law Institute Journal*, vol. 77, No. 7 (July 2003), p. 33.

SENTENCING CONSIDERATIONS

This section examines three general aspects of sentencing for pollution crimes, namely the overriding considerations that sanctions should be effective, proportionate and dissuasive; the presence of aggravating and mitigating factors; and the use of sentencing guidelines.

Effective, proportionate and dissuasive sanctions

The overriding considerations in determining appropriate sanctions for the offences addressed in this guide are that the penalties should be effective, proportionate and dissuasive. Those principles are reflected in the Organized Crime Convention and, under its article 11 (1), States parties are required to make offences established in accordance with the Convention attract sanctions that take into account the gravity of those offences. Article 11 (2) further refers to ensuring that penalties deter the commission of such offences. In the same vein, article 10 (4) states that States parties are to ensure that legal persons held liable in accordance with article 10 are subject to effective, proportionate and dissuasive criminal or non-criminal sanctions.

The principle of proportionality in sentencing is a general principle of criminal law common to national legal systems. It is protected by international human rights law and enshrined in instruments such as the United Nations Standard Minimum Rules for the Administration of Juvenile Justice (the Beijing Rules)[147] and the United Nations Standard Minimum Rules for Non-Custodial Measures (the Tokyo Rules).[148]

Many of the offences covered by this guide are serious crimes. It is important that the penalties for such offences reflect their serious nature and are comparable to sanctions for other serious crimes. They must reflect the community's condemnation of pollution crimes and act as effective deterrents. At the same time, not all the offences contained in this guide are equally grave. The penalty for each offence must be proportionate to its gravity. Furthermore, the circumstances of each offence and of each offender are infinitely variable and, as such, the sentences available to judges need to be flexible enough to take into account the individual circumstances of each case.

Aggravating and mitigating factors

A corollary of the requirement that sentences should be proportionate to the seriousness of the offence is the requirement that sentences must reflect the relevant circumstances of the offence. Circumstances that tend to increase the seriousness of the offence or the culpability of the offender, or otherwise warrant higher sentences, are known as aggravating factors. Circumstances that tend to reduce the seriousness of the offence or the culpability of the offender, or otherwise warrant lower sentences, are known as mitigating factors.

Different approaches to aggravating and mitigating factors are taken in different jurisdictions. In some jurisdictions, legislative provisions require stricter penalties, such as higher minimum or maximum sentences, where specific aggravating factors are present. Statutory provisions may also set out relevant factors to be taken into account by sentencing judges in deciding upon the appropriate sentence. In some cases, specific lists of aggravating and mitigating factors will be legislated for particular offences. In other cases, sentencing judges will rely upon general lists of factors relevant to sentencing for all criminal offences. Some jurisdictions use a mix of the two approaches, depending on the legislation and the offence in question. It is for each State to determine how aggravating and mitigating factors should be taken into account when sentencing offenders for pollution and related offences, bearing in mind the State's obligations under international law, including international human rights law. A number of suggested aggravating and mitigating factors are set out below.

[147] Rules 5.1 and 17.1 (a).

[148] Rules 2.3 and 3.2.

Circumstances that may be considered as aggravating factors in an offence covered by this guide, and thus warranting higher penalties, may include the following:

(a) Where the offence caused destruction, or irreversible or long-lasting substantial damage to, an ecosystem;

(b) Where the conduct of the defendant involved the risk of injury or death to any person or persons, whether or not such injury or death actually occurred;

(c) Where the offence was committed near, in whole or in part, or affected habitats, schools, livestock, cultivated fields, watercourses, protected areas including cultural heritage sites, areas of significant biodiversity importance, or other environmentally sensitive sites;

(d) Where the offence involved certain types and characteristics of pollution, including any hazardous nature;

(e) Where the offence involved a large quantity or volume of pollution;

(f) Where the offence resulted in significant direct or indirect financial or other material benefit to the offender or to any other person;

(g) Whether the offence caused significant direct or indirect financial or other material loss to another person caused by the offence, including costs of clean-up and remediation of an environment, habitat or location;

(h) Where the offence was committed as part of the activity of an organized criminal group;

(i) Where the offender exercised a leadership or managerial role in the organized criminal group;

(j) Where the offence was part of a pattern of ongoing criminal activity;

(k) Where the offender had previously committed any related or similar offence;

(l) Where the offender attempted to obstruct the administration of justice during the investigation, prosecution or sentencing of the offence;

(m) Where the offender had a history of non-compliance with warnings by a relevant government regulator;

(n) Where the offence was committed by a government official;

(o) Where the offence was committed by a person in a position of trust or authority, including the holder of a relevant permit or certificate.

It should be stressed that aggravating factors must not be elements of the offence being sentenced. For example, commission of the offence as part of the activity of an organized criminal group should not be an aggravating factor where the offender is being sentenced for the offence of participation in an organized criminal group.

LEGISLATIVE EXAMPLE: CANADA

Environmental Protection Act (1999)

[…]

Sentencing principles

287.1 (1) In addition to the principles and factors that the court is otherwise required to consider, including those set out in sections 718.1 to 718.21 of the Criminal Code, the court shall consider the following principles when sentencing a person who is convicted of an offence under this Act:

(a) the amount of the fine should be increased to account for every aggravating factor associated with the offence, including the aggravating factors set out in subsection (2); and

(b) the amount of the fine should reflect the gravity of each aggravating factor associated with the offence.

Aggravating factors

(2) The aggravating factors are the following:

(a) the offence caused damage or risk of damage to the environment or environmental quality;

(b) the offence caused damage or risk of damage to any unique, rare, particularly important or vulnerable component of the environment;

(c) the offence caused harm or risk of harm to human health;

(d) the damage or harm caused by the offence is extensive, persistent or irreparable;

(e) the offender committed the offence intentionally or recklessly;

(f) the offender failed to take reasonable steps to prevent the commission of the offence despite having the financial means to do so;

(g) by committing the offence or failing to take action to prevent its commission, the offender increased revenue or decreased costs or intended to increase revenue or decrease costs;

(h) the offender committed the offence despite having been warned by an enforcement officer of the circumstances that subsequently became the subject of the offence;

(i) the offender has a history of non-compliance with federal or provincial legislation that relates to environmental or wildlife conservation or protection; and

(j) after the commission of the offence, the offender:

(i) attempted to conceal its commission,

(ii) failed to take prompt action to prevent, mitigate or remediate its effects, or

(iii) failed to take prompt action to reduce the risk of committing similar offences in the future.

[…]

Circumstances which may be considered as mitigating factors in an offence covered by the present guide, and thus warranting lower penalties, may include:

(a) Certain types and characteristics of pollution, such as pollution with no hazardous characteristics;

(b) Where the offence involved a lower quantity or volume of pollutants or a lower extent of pollution;

(c) Where the offence did not cause or risk any discernible harm to any person, animal or ecosystem, did not pose a risk to public health and did not cause damage to cultural heritage, habitats or livelihoods;

(d) Where the offence was not committed for financial or other material benefit;

(e) Where the offender obtained no or little financial or other material benefit from the offence;

(f) Where the offender had a lesser or minor role in the offence;

(g) Where the offender committed the offence under the influence of coercion, intimidation or exploitation;

(h) Where the offender took steps to rectify or mitigate the impacts of the offence;

(i) Where the offender showed remorse for the offence;

(j) Where the offender voluntarily cooperated by providing information or otherwise assisted competent authorities, including in the investigation and prosecution of pollution or related offences;

(k) Where the offender pleaded guilty, especially where the plea is early;

(l) Where the offender had no or no relevant prior criminal record or no recent convictions;

(m) Where the offender was otherwise of prior good character;

(n) Where the offender was of a young age at the time of the commission of the offence or at the time of sentencing;

(o) Where the offender is a sole or primary caregiver for dependent relatives;

(p) Any disability or medical condition of the offender requiring urgent, intensive or long-term treatment.

Prosecutors and judges should also apply a gender-responsive approach to their respective roles in the sentencing of offenders. Consideration of the intersectional identity of the offender, including his or her gender, may assist in identifying relevant mitigating factors that should be considered in sentencing.[149]

As with the aggravating factors mentioned above, some of the mitigating factors may also be relevant in other contexts, such as in determining whether or not a particular offence has been committed (for example, some offences may include as elements thresholds of quantity or volume of pollutants or requirements of harm or risk of harm) or the exercise of prosecutorial discretion in deciding whether to prosecute or pursue alternatives to a trial (many of the cited factors would be relevant to such decisions).

Sentencing guidelines

Some States, where such an approach is consistent with their legal systems, have adopted guidelines for use by judges in sentencing offenders, including for environmental offences such as pollution crimes. The primary purpose of sentencing guidelines is to promote consistency in sentencing but such guidelines may also promote public confidence in sentencing and in the criminal justice system more broadly.[150] Sentencing guidelines are sometimes viewed, however, as an incursion into the power of judges to exercise discretion in setting appropriate sentences, and are not permissible in some legal systems.

It is for each State to decide whether the use of sentencing guidelines would be beneficial under its legal system. The introduction of a system for issuing and using sentencing guidelines is a reform that is likely to be beyond the scope of legislation aimed specifically at preventing and combating illegal pollution. Nevertheless, for States that are interested in establishing sentencing guidelines or in reviewing the existing systems for issuing and using sentencing guidelines, information on one jurisdiction's experience is provided below.

Where sentencing guidelines are used, they are generally formulated by an independent body of experts, typically comprising current or former members of the judiciary and persons from other relevant professions, such as criminal justice professionals and academics.

[149] UNODC, *Issue Paper: Organized Crime and Gender*, p. 32.

[150] See Julian V. Roberts and Andrew Ashworth, "The evolution of sentencing policy and practice in England and Wales, 2003–2015", *Crime and Justice*, vol. 45, No. 1 (2016).

SENTENCING GUIDELINES FOR ENVIRONMENTAL OFFENCES IN THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

In the United Kingdom, the Sentencing Council for England and Wales was established pursuant to the Coroners and Justice Act 2009. The Sentencing Council is empowered to prepare and, following consultations, issue sentencing guidelines, whether general in nature or limited to a particular offence, particular category of offence or particular category of offender. When preparing sentencing guidelines, the Sentencing Council is required to have regard for the desirability of sentencing guidelines relating to a particular offence being structured according to a scheme for sentencing ranges and starting points set out in the Act. In sentencing an offender, courts are required to follow any sentencing guidelines which are relevant to the offender's case, unless satisfied that it would be contrary to the interests of justice to do so.

The Sentencing Council has issued a number of sentencing guidelines, including a general guideline on overarching principles of sentencing and guidelines on sentencing for environmental offences. The guidelines on sentencing for environmental offences comprise guidelines for sentencing offences of unauthorized or harmful deposit, treatment or disposal, among other things, of waste, and of illegal discharges to air, land and water, with separate guidelines for natural and for legal persons, and general guidelines for other environmental offences.

The guidelines relating to the specific environmental offences each set out a 12-step process to be followed in sentencing offenders for such offences. Different sets of steps are provided for natural and for legal persons. The process for sentencing set out in the guidelines involves, among other steps, determining the appropriate offence category by reference to the culpability of the offender, identifying the applicable starting point and category range, identifying and taking into account relevant aggravating and mitigating factors, and reviewing whether the sentence, as a whole, is proportionate and meets, in a fair way, the objectives of punishment, deterrence and the removal of gain derived through the commission of the offence. Non-exhaustive lists of relevant aggravating and mitigating factors are provided in the guidelines. The guidelines also address the making of ancillary orders, including remediation orders, confiscation orders and disqualification orders.

A 2016 study of the guidelines found that, while it was hard to make definitive conclusions on their efficacy,

> analysis shows that the majority of offences sentenced, for both organizations and individuals, were within the appropriate category range, which implies that the guideline is generally being applied in the manner intended. In addition, the data collected indicated that although issues were occasionally encountered, overall, sentencers did not indicate that they experienced any difficulties applying the guideline.[a]

[a] United Kingdom of Great Britain and Northern Ireland, Sentencing Council, "Assessing the impact of the Sentencing Council's environmental offences definitive guideline" (2016), p. 17.

TYPES OF SANCTION

The previous section outlined some relevant considerations underlying sentencing for pollution offences. This section examines specific penalties that may be imposed when these and other relevant considerations are synthesized. Imprisonment and non-custodial penalties are considered first, before turning to so-called ancillary orders. The section concludes with a brief discussion of specific sanctions for legal persons and a model legislative provision.

Imprisonment

The overriding consideration in establishing applicable sanctions is that sanctions should be effective, proportionate and dissuasive. The most serious offences covered in this guide should be subject to maximum sentences of imprisonment proportional to the gravity of the offence and long enough to serve as effective deterrents. It is important for the determination of the maximum penalty to take into account the severity of potential harm to both humans and the environment.

In applying the overriding consideration that sanctions should be effective, proportionate and dissuasive, there are three further factors that States should bear in mind when setting the maximum sentences of imprisonment for pollution crimes. Those factors should not replace the task of determining a maximum penalty that is effective, proportionate and dissuasive but rather can help in doing so.

Firstly, when setting maximum sentences, it should be borne in mind that the Organized Crime Convention applies to offences established in accordance with the Convention and also to "serious crimes", defined under article 2 (b) of the Convention as conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty. Whereas certain offences related to pollution crime, including participation in an organized criminal group, corruption, money-laundering and obstruction of justice, are established in the Convention, pollution offences and other environmental offences are not. Accordingly, where pollution offences are deemed by a State to be sufficiently grave to warrant maximum penalties of at least four years' imprisonment, it is important that the State ensure that such penalties are established by law. Otherwise, not only will the offences not be punishable by penalties reflecting their gravity (in the most serious cases) but the Convention itself will not apply in relation to the offences.

Secondly, in some States and as noted in chapter III, the designation of predicate offences for the purpose of money-laundering legislation is determined by reference to the maximum penalty for the offence in question. In such States, legislative drafters should ensure that, where appropriate, the maximum penalties for pollution and related offences intended for designation as predicate offences are sufficiently high to meet that threshold.

Thirdly, the eligibility of an offence to serve as a basis for extradition is determined in some States by reference to the maximum penalty for the offence in question. Where that is the case, legislative drafters should ensure that the maximum penalties for offences serious enough to warrant extradition are sufficiently high for extradition to be possible under the State's extradition treaties and domestic legislation.[151] Some of the offences covered by this guide are serious enough to warrant extradition, whereas others may be deemed not sufficiently serious to warrant that measure.

Non-custodial penalties

Legislation establishing or amending pollution offences covered by this guide should also take into consideration the desirability of alternatives to custodial sentences in certain circumstances. The types of non-custodial sentence that may be given to offenders and the availability of each type of non-custodial sentence are matters for each State to determine in accordance with its legal framework for sentencing. Two types of non-custodial penalty are addressed below, namely fines and community service orders. Other penalties that may be used include suspended sentences, house arrest, probation and good behaviour bonds.

Guidance on alternatives to imprisonment can be found in the United Nations Standard Minimum Rules for Non-Custodial Measures (the Tokyo Rules) and in rules 57 to 66 of the United Nations Rules for the Treatment of Women Prisoners and Non-Custodial Measures for Women Offenders (the Bangkok Rules), as well as in the UNODC *Handbook of Basic Principles and Promising Practices on Alternatives to Imprisonment* and UNODC *Handbook on Strategies to Reduce Overcrowding in Prisons*. Under the Tokyo Rules, domestic law should provide for a wide range of non-custodial measures for convicted persons, from pretrial to post-sentencing provisions (rules 2.3 and 3.1).

Fines

In the same way as other penalties for pollution and related offences, maximum fines must adequately reflect the seriousness of the offence and be high enough to act as effective deterrents. In some circumstances, fines may be imposed in addition to a sentence of imprisonment or another non-custodial penalty. In determining the appropriate value for maximum fines for offences covered in this guide, legislators should bear in mind

[151] See also the consideration of extradition in chapter V.

that criminal activities causing illegal pollution can be lucrative and that the detection of pollution crimes is often difficult. If fines are not high enough, there is a danger that they simply become incorporated into the operating costs of organized criminal groups without deterring the commission of offences (that is, they become part of the cost of doing business). In all cases, the financial status and capacities of the offender should be taken into account when determining the appropriate sum of any fine, together with the level of criminality and profit to the offender, as well as the likelihood of detection of offending.[152]

With regard to legal persons, the court or another competent authority may require access to accounts and other financial documents of the legal persons and, where appropriate, of related entities, in order to assess the offender's financial status. States should also consider implementing measures to prevent the real value of fines being reduced over time by inflation, with the value of fines also being subject to regular review.

In many cases, a fine will not serve as an effective deterrent without confiscation of the proceeds of crime. The confiscation of the proceeds of crime and of property, equipment and other instrumentalities used in or destined for use in criminal offences is addressed in article 12 of the Organized Crime Convention.

Legislation should provide that, in sentencing an offender for pollution offences or another offence covered by this guide, priority is given to restitution or compensation for the victims of the offence and environmental remediation. Fines of an amount that would undermine the ability of the defendant to make restitution or pay compensation to the victims or to comply with an order for environmental remediation should not be imposed.

Community service orders

In some cases, community service orders may be an appropriate sentencing option. They are a way of making offenders give back to the community that they have harmed through their criminal actions. Such orders therefore bear some similarities to restitution and compensation, though they are intended to benefit the community at large rather than only the victims of the crime in question.

Community service orders have traditionally been handed down to natural persons convicted of a crimes but they may also be used in sentencing legal persons. Community service orders for legal persons may be particularly appropriate where the organization in question possesses knowledge, facilities or skills that uniquely qualify it to repair damage and give back to the community,[153] although such orders may also be appropriate in other circumstances.

A community service order may be inappropriate where the defendant cannot be trusted to carry out the terms of the order or there are insufficient mechanisms in place to ensure compliance. For example, where a defendant has a history of repeated violation of environmental laws or regulations, or otherwise shows a disregard for compliance with environmental laws and regulations, there may be doubts as to the effectiveness of a community service order. In general, in order to ensure that sanctions are effective, proportionate and dissuasive, it may be appropriate for community service orders always to be issued in addition to other criminal sanctions, such as fines and imprisonment (including suspended sentences of imprisonment).

[152] See Gary S. Becker, "Crime and punishment: an economic approach", *Journal of Political Economy,* vol. 76, No. 2 (March/April 1968); and Mark A. Cohen, "Environmental crime and punishment: legal/economic theory and empirical evidence on enforcement of federal environmental statutes', *Journal of Criminal Law and Criminology*, vol. 82, No.4 (1992).

[153] United States Sentencing Commission, *Guidelines Manual 2021* (November 2021), sect. 8 B 1.3.

CASE STUDY: *UNITED STATES V. TONAWANDA COKE CORPORATION*

The Environmental and Natural Resources Division of the United States Department of Justice provides examples and summaries of environmental crime cases it has prosecuted. One such case was *United States v. Tonawanda Coke Corporation*, where the offending corporation and a manager were both sentenced to community service.

The defendant company in the case, the Tonawanda Coke Corporation, operated in New York and was involved in the production of steel. An investigation of the company's facility uncovered various environmental offences, including illegal emissions of harmful chemicals, failures to install measures to prevent the escape of harmful particulate matter, and illegal storage and disposal of waste. A manager at the facility had also instructed other staff to conceal those violations from inspectors.

Following a trial, both the company and the manager were found guilty of numerous offences. The company was sentenced to pay a $12.5 million fine and $12.2 million in community service. It was also placed on a five-year term of probation. The money from the community service order was directed to fund an epidemiological study and an air and soil study to help determine the extent of health and environmental impacts of the facility. The manager was sentenced to one year in jail, a $20,000 fine and 100 hours of community service.[a]

[a] United States of America, Western District of New York, *United States v. Tonawanda Coke Corporation*, Opinion No. 10-CR-0219S (1), 29 May 2014; and United States Department of Justice, Environmental and Natural Resources Division, "Prosecution of federal pollution crimes", 31 July 2023.

Ancillary orders

Depending on the circumstances of the pollution crime in question, a sentence of imprisonment or a non-custodial alternative to imprisonment alone may be insufficient. It may be necessary for a court to make additional orders, sometimes known as "ancillary orders". In some jurisdictions, the term refers to orders that are available to judges upon passing a conviction but which are not the primary punishment for the offender (such as would be a sentence of imprisonment, a fine or another non-custodial penalty).[154] In this sense, the orders are "ancillary" (or additional) to the main penalty. This is not to suggest that the orders are somehow not important or may not have serious consequences for the offender. On the contrary, orders for restitution or compensation, for example, should be given priority over fines. Moreover, an order disqualifying a natural or legal person from exercising an occupation, carrying out an activity or holding a permit or licence may be a significant penalty for the offender in question.

This section presents a number of orders commonly classified as ancillary orders under domestic law that should be considered in developing legislation for preventing and combating illegal pollution. They include restitution, compensation and remediation orders, orders for confiscation and disposal, and disqualification orders.

The discussion of orders in this section is without prejudice to the classification of such orders under domestic law. What is considered an ancillary order and, conversely, what may be ordered as an independent sentencing option, differs across jurisdictions. For example, in some jurisdictions, restitution or compensation orders or disqualification orders may be regarded as independent sentencing options under domestic law.

Furthermore, although the measures covered in this section are considered in the context of penalties and sentencing, it should be noted that in some jurisdictions a criminal conviction is not required for ordering some of those measures. For example, procedures for non-conviction-based confiscation and forfeiture (also known as "civil forfeiture" or "*in rem* forfeiture") are possible in some States.[155] Orders for restitution, compensation and remediation may also be made in some jurisdictions independent of a criminal conviction. States should consider, where appropriate, establishing procedures for such measures to be ordered in the absence of a criminal conviction.

[154] Andrew Ashworth and Rory Kelly, *Sentencing and Criminal Justice*, 7th ed. (London, Bloomsbury Publishing, 2021), p. 348.

[155] For further information on non-conviction-based confiscation, see Theodore S. Greenberg and others, *Stolen Asset Recovery: A Good Practices Guide for Non-Conviction Based Asset Forfeiture* (Washington, D.C., World Bank, 2009).

Restitution, compensation and remediation orders

Article 25 (2) of the Organized Crime Convention requires that States parties establish appropriate procedures for providing access to restitution and compensation for victims of offences covered by the Convention. Although the Convention does not contain any further details on the types of procedure that may be appropriate for providing restitution and compensation, procedures allowing for the granting of such orders as ancillary orders to sentencing should be considered by States as a means of providing restitution and compensation to victims of pollution offences.

The Organized Crime Convention does not address the issue of remediation orders. Remediation may, however, be an important component of orders made to address the harms caused by pollution offences. Although the use of terminology may vary across jurisdictions, for the purposes of this guide, remediation is understood as an act to repair or mitigate harm that has been, may or will be caused to the environment, whereas restitution is understood as an act to repair harm caused to a victim.

The issue of restitution, compensation and remediation orders straddles the topic of penalties and sentencing and that of protection and assistance. This guide contains detailed consideration of the issues in chapter VIII (on protection and assistance) in order to reflect the fact that restitution, compensation and remediation orders are tools that are broader than criminal sanctions and their use is not necessarily contingent upon obtaining a criminal conviction. Such types of order remain, however, an important sentencing option for use by judges in criminal cases.

Confiscation orders

Seizure under the Organized Crime Convention was addressed in chapter IV of this guide, where it was noted that, under article 12 (1) of the Organized Crime Convention, States parties are required to adopt, to the greatest extent possible within their domestic legal systems, such measures as may be necessary to enable the confiscation of proceeds of crime derived from offences covered by the Convention and of property, equipment or other instrumentalities used in or destined for use in offences covered by the Convention. States parties to the Organized Crime Convention should also be aware of their obligations relating to international cooperation for the purpose of confiscation and for the disposal of confiscated proceeds of crime or property pursuant to articles 13 and 14 of the Convention.

States should ensure that orders for the confiscation of such proceeds, property, equipment and other instrumentalities can be made as ancillary orders during sentencing for offences covered by this guide. Where this is not already adequately provided for under other laws, the matter should be addressed in legislation combating illegal pollution.

LEGISLATIVE EXAMPLE: BANGLADESH

Environmental Protection Act (1995, as amended by Environment Conservation (Amendment) Act, 2010)

[…]

15B. Confiscation of materials and equipment involved in offence

Where a person is found guilty and sentenced under section 15, all equipment or parts thereof, transport, substance or any other thing used in the commission of the offence may be confiscated or demolished under order of the court.

[…]

Disqualification orders and cancellation of licences, permits or certificates

Among the ancillary orders that may be appropriate for a court to hand down in response to pollution offences are orders prohibiting a natural or legal person from holding a certain occupation or position or from carrying out certain activities. For example, it may be appropriate for a court to disqualify a natural person from acting as a company director for a specified period of time. It may also be appropriate for a court to order that a natural or legal person's permit or licence to carry out specified activities linked to the pollution caused be cancelled and that the person be barred from applying for such a permit or licence for a specified period of time.

As with the other orders discussed in this section, it may be appropriate for courts or competent authorities to issue disqualification orders or decisions, to cancel permits or licences or to bar a person from applying for a permit or licence, independently of any criminal proceedings against that person. Such orders or decisions could, for example, be made on the basis of breach of duties pertaining to company directors or breach of the conditions attaching to a permit or licence.

LEGISLATIVE EXAMPLE: KENYA

Environmental Management and Coordination Act (1999)

[…]

76. Cancellation of effluent discharge licence

(1) The Authority may in writing, cancel any effluent discharge licence:

(a) if the holder of the licence contravenes any provision of this Act or any regulations made thereunder;

(b) if the holder fails to comply with any condition specified in the licence; or

(c) if the Authority considers it in the interest of the environment or in the public interest so to do.

[…]

Sanctions for legal persons

The previous sections of this guide set out a range of custodial and non-custodial penalties, as well as ancillary orders. Some of the sanctions considered in those sections, such as fines and ancillary orders, are applicable to natural and legal persons alike. Other sanctions, such as imprisonment, are only possible in relation to natural persons. There are also sanctions that may only be ordered in relation to a legal person, such as an order for the legal person to be dissolved or wound up. Some penalties must also be uniquely tailored to legal persons. For example, the calculation of fines for a legal person may be linked to its annual turnover.

Model legislative provision 26 sets out a list of possible sanctions that may be imposed, individually or in combination, on legal persons found guilty of an offence. They range from monetary penalties, confiscation of proceeds of crime and adverse publicity, to dissolution of the legal person itself.

MODEL LEGISLATIVE PROVISION 26: SANCTIONS FOR LEGAL PERSONS

A legal person found guilty of an offence to which this [Act/Law/Chapter …] applies shall be subject to one or more of the following sanctions:

(a) A fine not exceeding:

(i) [maximum amount]; or

(ii) [x] times the total value of the benefit obtained or damage caused that is reasonably attributed to the offence; or

(iii) [If the court cannot determine the total value of the benefit or damage] [x] per cent of the annual turnover of the legal person during the 12-month period prior to the commission of the offence;

(b) Confiscation of proceeds of crime;

(c) An order that the legal person publish the judgment by the court including, as appropriate, the particulars of the offence and the nature of any penalty imposed;

(d) An order that the legal person do stated things or establish or carry out a stated project for the public benefit;

(e) An order that the legal person be placed under judicial supervision for a maximum period of [x] years;

(f) A review of the legal person carried out by an independent monitor appointed by the court for the purpose of reporting to the court on the legal person's efforts to implement a culture of lawfulness;

(g) Prohibition of the exercise, directly or indirectly, of one or more professional activities [permanently] [for a period not exceeding [x] years];

(h) Cancellation of a [*insert relevant term for permits or licences*] held by the legal person;

(i) An order that the legal person be [temporarily] [permanently] disqualified from applying for a [*insert relevant term for permits or licences*] to carry out certain activities;

(j) The [temporary] [permanent] closure of the establishment, or one or more of the establishments, of the legal person that [was/were] used to commit the offences in question;

(k) An order that the legal person be [temporarily] [permanently] disqualified from public bidding, from entitlement to public benefits or aid, [and/or] from participation in public procurement;

(l) Disqualification of the legal person [temporarily] [permanently] from the practice of other commercial activities [and/or] from the creation of another legal person;

(m) Where the activity of the legal person was entirely or predominantly used for the carrying out of criminal offences or where the legal person was created to commit an offence to which this [Act/Law/Chapter …] applies, an order that the legal person be dissolved; or

(n) Further orders as the court considers just.

LEGISLATIVE EXAMPLE: EUROPEAN UNION

Directive (EU) 2024/1203 of the European Parliament and of the Council of 11 April 2024 on the protection of the environment through criminal law and replacing Directives 2008/99/EC and 2009/123/EC

[…]

Article 7

Penalties for legal persons

1. Member States shall take the necessary measures to ensure that a legal person held liable pursuant to article 6(1) or (2) is punishable by effective, proportionate and dissuasive criminal or non-criminal penalties or measures.

2. Member States shall take the necessary measures to ensure that penalties or measures for legal persons held liable pursuant to article 6(1) or (2) for the criminal offences referred to in articles 3 and 4 shall include criminal or non-criminal fines and may include other criminal or non-criminal penalties or measures, such as:

(a) an obligation to:

(i) restore the environment within a given period, if the damage is reversible, or

(ii) pay compensation for the damage to the environment, if the damage is irreversible or the offender is not in a capacity to carry out such restoration;

(b) exclusion from entitlement to public benefits or aid;

(c) exclusion from access to public funding, including tender procedures, grants, concessions and licences;

(d) temporary or permanent disqualification from the practice of business activities;

(e) withdrawal of permits and authorizations to pursue activities that resulted in the relevant criminal offence;

(f) placing under judicial supervision;

(g) judicial winding-up;

(h) closure of establishments used for committing the offence;

(i) an obligation to establish due diligence schemes for enhancing compliance with environmental standards;

(j) where there is a public interest, publication of all or part of the judicial decision relating to the criminal offence committed and the penalties or measures imposed, without prejudice to rules on privacy and the protection of personal data.

3. Member States shall take the necessary measures to ensure that, at least for legal persons held liable pursuant to article 6(1), criminal offences covered by article 3(2) are punishable by criminal or non-criminal fines, the amount of which shall be proportionate to the gravity of the conduct and to the individual, financial and other circumstances of the legal person concerned. Member States shall take the necessary measures to ensure that the maximum level of such fines is not less than:

(a) for criminal offences covered by article 3(2), points (a) to (l), and points (p), (s) and (t):

(i) 5 per cent of the total worldwide turnover of the legal person, either in the business year preceding that in which the offence was committed, or in the business year preceding that of the decision to impose the fine, or

(ii) an amount corresponding to EUR 40,000,000;

(b) for criminal offences covered by article 3(2), points (m), (n), (o), (q) and (r):

(i) 3 per cent of the total worldwide turnover of the legal person, either in the business year preceding that in which the offence was committed, or in the business year preceding that of the decision to impose the fine, or

(ii) an amount corresponding to EUR 24,000,000.

Member States may establish rules for cases where it is not possible to determine the amount of the fine on the basis of the total worldwide turnover of the legal person in the business year preceding that in which the offence was committed, or in the business year preceding that of the decision to impose the fine.

4. Member States shall take the necessary measures to ensure that legal persons held liable pursuant to article 6 for the criminal offences covered by article 3(3) are punishable by more severe criminal or non-criminal penalties or measures than those applicable for the criminal offences covered by article 3(2).

[…]

Chapter VIII.

PROTECTION AND ASSISTANCE

In preventing and combating unlawful pollution, it is important that the measures used are not narrowly focused on criminalization, investigation and prosecution of this form of criminal activity. Steps must also be taken to ensure the protection of witnesses, whistle-blowers, environmental defenders and other reporting persons who bring criminal activity to the attention of authorities and assist in the prosecution of pollution crimes. The General Assembly has, for example, called on States to take all appropriate measures within their means to provide effective assistance to and protection for witnesses and victims of crimes that affect the environment, as well as to consider providing access to habitat restoration.[156]

Pollution can cause significant harm to people and the environment. The impacts of pollution on human health and the stability of ecosystems are well documented, in particular where the type of pollution is unauthorized or where it exceeds legal limits. Measures should therefore also be implemented for facilitating removal of pollutants and remediation of damaged environments, as well as ensuring that any harm is minimized. Victims of pollution crime must also be offered protection and assistance, including access to restitution or compensation and other forms of assistance, where appropriate.

PROTECTION OF WITNESSES

Organized criminal groups, including those involved in pollution crimes, commonly employ their resources to threaten witnesses and disrupt criminal proceedings brought against them. Given the importance of witnesses to successful prosecutions, it is critical that States use measures to ensure the protection of witnesses, their families and others close to them.

Under article 24 of the Organized Crime Convention, States parties are required to provide witnesses with such protection. Paragraph 1 of article 24 states the following:

> Each State party shall take appropriate measures within its means to provide effective protection from potential retaliation or intimidation for witnesses in criminal proceedings who give testimony concerning offences covered by this Convention and, as appropriate, for their relatives and other persons close to them.

[156] General Assembly resolution 76/185, para. 10.

The Organized Crime Convention does not define the term "witness", but it is suggested that a broad notion of witnesses should be applied when establishing measures for the protection of witnesses to best achieve the protective aims of article 24.[157] In that regard, legislators may wish to make protective measures available not only to persons who have actually testified but also to persons cooperating with the authorities. Furthermore, the reference to retaliation or intimidation should not be seen as limited to physical threats, nor to ones that have already occurred; the word "potential" in article 24 refers to intimidation or retaliation that has not yet materialized.[158]

The protection of witnesses can be achieved with various measures, both during the investigation process and outside of and during court proceedings. During the investigation process, care and good practices should be applied to ensure the protection of witnesses, such as restriction of access to information on a need-to-know basis, protection of data, and careful scheduling and planning of meetings and interviews. In court, special measures can be taken for reducing the risks of giving evidence, including privacy screens to avoid confrontation between the witness and the defendant, use of pretrial statements in lieu of court testimony, and arranging for the witness to give evidence by video link. Outside of court, witnesses may be granted physical protection, relocated or have information about themselves restricted. In extreme cases they may be placed in witness protection programmes. A witness protection programme is a formally established covert programme subject to strict admission criteria that provides for the relocation and change of identity of witnesses whose lives are threatened by a criminal group because of their cooperation with law enforcement authorities.[159]

Whichever measure, or combination of measures, is used in a given case, it must provide effective protection and should take into account gender considerations.[160] This will mean assessing the identity and individual needs and circumstances of a witness, as well as the seriousness of the potential or actual threats against that witness. The resources and material capabilities of the State concerned should also be taken into account.[161]

Furthermore, whichever measures are used, they must be implemented in a way that appropriately balances the protection of witnesses against the defendant's right to due process.[162] Although protection of the rights of defendants, including, where applicable, the right to confront witnesses, are key to ensuring a fair trial, such procedural rights are rarely absolute and are subject to exceptions and restrictions in most jurisdictions.

Where witnesses are also the victims of an offence, further care must be exercised to ensure that they are appropriately protected during criminal investigations and court proceedings. Under article 25 of the Organized Crime Convention, a State party is required to take appropriate measures, within its means to provide protection to victims of offences covered by the Convention, in particular in cases of threat of retaliation or intimidation. It is clarified in article 24 (4) that the provisions of article 24 apply equally to victims where they are witnesses. Measures under articles 24 and 25 should be implemented in a coherent and complementary manner.[163]

Model legislative provision 27 addresses the protection of witnesses and persons cooperating with law enforcement authorities.

[157] UNODC, *Legislative Guide*, para. 409.

[158] Joseph Lelliott, "United Nations Convention against Transnational Organized Crime: article 24: protection of witnesses" in *UN Convention Against Transnational Organized Crime: A Commentary*, Andreas Schloenhardt and others, eds. (Oxford, Oxford University Press, 2023), pp. 267 and 268.

[159] UNODC, *Good Practices for the Protection of Witnesses in Criminal Proceedings Involving Organized Crime* (2008), p. 5.

[160] UNODC, *Issue Paper on Organized Crime and Gender*, p. 44.

[161] Joseph Lelliott, "United Nations Convention against Transnational Organized Crime: article 24: Protection of Witnesses", p. 268.

[162] Organized Crime Convention, art. 24 (2).

[163] UNODC, Legislative Guide, para. 392.

MODEL LEGISLATIVE PROVISION 27: PROTECTION OF WITNESSES AND PERSONS COOPERATING WITH LAW ENFORCEMENT AUTHORITIES

1. This article shall apply to a witness, including a victim insofar as they are also a witness, and a person cooperating with law enforcement authorities.

2. For the purposes of this [Act/Law/Chapter…]:

(a) "witness" shall include any person that has given, has agreed to give or is required to give evidence or make a statement in investigation, prosecution or adjudication proceedings of an offence to which this [Act/Chapter/Law …] applies;

(b) "person cooperating with law enforcement authorities" shall include any person that is cooperating with law enforcement authorities or another authority involved in the investigation or prosecution of an offence to which this [Act/Law/Chapter…] applies to:

(i) Supply information useful for investigative and evidentiary purposes on such matters as:

a. The identity, location or activities of a person that has committed or may commit an offence to which this [Act/Law/Chapter…] applies;

b. The identity, nature, composition, structure, location or activities of an organized criminal group or their links with other organized criminal groups; or

c. Offences that a person or an organized criminal group has committed or may commit; or

(ii) Provide factual, concrete help that may contribute to depriving an organized criminal group of its resources or of the proceeds of crime.

3. The [*insert name of relevant authorities*] shall take appropriate measures to ensure that a person to which this article applies is provided adequate protection if that person's safety is at risk. This includes measures for protecting that person from retaliation, intimidation or harm by suspects, offenders or their associates.

4. The [*insert name of relevant authorities*] shall, as appropriate, further take the measures specified in paragraph 3 in relation to the person's relatives [and domestic or de facto partner, …].

5. A person to which this article applies shall have access to any existing protection measures or programmes under [*insert relevant Act/provisions/*…].

PROTECTION OF WHISTLE-BLOWERS AND OTHER REPORTING PERSONS

Criminal activity involving pollution crimes may sometimes only be uncovered following reports from persons who become aware of the activity in the context of their work and act as whistle-blowers, reporting either internally within the private or public entity – to regulators or law enforcement or other government authorities – or, depending on the situation, to news media organizations or other non-governmental organizations.

WHISTLE-BLOWER PROVISIONS IN THE UNITED STATES OF AMERICA AND SUCCESSFUL PROSECUTIONS

In the United States of America, the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the 1978 and 1997 Protocols, (MARPOL) is implemented through the Act to Prevent Pollution from Ships. The Act contains the following whistle-blower reward provision (under United States Code chap. 33, sect. 1908):

> A person who knowingly violates the MARPOL Protocol, Annex IV to the Antarctic Protocol, this Act, or the regulations issued thereunder commits a class D felony. In the discretion of the Court, an amount equal to not more than one half of such fine may be paid to the person giving information leading to conviction.

An analysis of prosecutions under the Act to Prevent Pollution from Ships carried out by the National Whistleblower Center found that whistle-blowers were responsible for 76 per cent of all successful cases between 1993 and 2017, with 205 whistle-blowers being awarded approximately $33 million by United States courts in that period.

An example of one such case is *United States of America v. Diamlemos Shipping Corp* where a worker on an oil motor tanker vessel passed a note in secret to officials of the United States Coast Guard during an inspection of the vessel. The note alerted the authorities to a mechanism installed on the vessel used to bypass a device intended to prevent oil pollution. It also contained a request for protection for that worker.

Following interviews with several other workers on the vessel, the Government initiated a criminal investigation that resulted in the prosecution of the chief engineer on the vessel and the company that owned the vessel.

Persons who report serious crimes often take significant personal risks. They may be dismissed from their employment, sued for breach of confidentiality, blacklisted, threatened, assaulted or, in some cases, killed. Protecting such persons from harm and retaliation is therefore important for promoting and facilitating the exposure of pollution crimes, facilitating detection, enhancing transparency and accountability, and reducing the capacity of wrongdoers to rely on the silence of those around them.

Owing to the risks faced by persons who report serious crimes, States should consider granting them protection from potential retaliation or intimidation. Although the term "whistle-blower" is often seen, "reporting person" is used here as a more inclusive term. "Reporting person" is understood as including any person who reports in good faith and on reasonable grounds to relevant authorities any facts concerning offences covered by this guide. The Council of Europe defines "whistle-blower" as any person who reports or discloses information on a threat or harm to the public interest in the context of his or her work-based relationship, whether it be in the public or private sector.[164]

The Organized Crime Convention does not explicitly address reporting persons or whistle-blowers. Under article 33 of the Convention against Corruption, however, State parties are to consider incorporating appropriate measures into their domestic legal systems to provide protection against any unjustified treatment for any person who reports in good faith and on reasonable grounds to the competent authorities any facts concerning offences established in accordance with that Convention. In 2023, the Conference of the States Parties to the Convention against Corruption adopted resolution 10/8, which is aimed at strengthening the implementation of article 33 on the basis of evolving global practices. The resolution covers several key aspects, including an interpretation of the "good faith" element, defined as the reporting person's reasonable belief that the information reported is true, and without consideration of personal reasons that may be behind the report.[165] In the resolution, the Conference of the States Parties identifies various reporting channels, including

[164] Council of Europe, recommendation CM/Rec (2014)7 of the Committee of Ministers to member States on the protection of whistleblowers.

[165] Resolution 10/8, para. 14.

direct reporting to law enforcement and other relevant authorities, and encourages States to strengthen their employment legislation for protecting reporting persons.

States should consider introducing measures to protect reporting persons in relation to all offences covered by this guide where disclosures are made with a reasonable belief that the information was true at the time it was reported, and noting that knowingly false disclosures should not be protected. An example of provisions to that effect can be found in European Union Directive 2019/1937, which provides that reporting persons qualify for protection where they had reasonable grounds to believe that the information on breaches reported was true at the time of reporting.[166]

The introduction of such measures is broadly consistent with provisions of international environmental agreements concerning access to information, public participation in decision-making and access to justice in environmental matters, such as the Aarhus Convention and the Escazú Agreement. For example, article 9 (3) of the Escazú Agreement provides the following:

> Each Party shall also take appropriate, effective and timely measures to prevent, investigate and punish attacks, threats or intimidations that human rights defenders in environmental matters may suffer while exercising the rights set out in the present Agreement.

In addition to establishing measures protecting reporting persons, States should also establish specific channels through which suspected pollution crimes can be reported.[167]

The kind of protection a person might require depends on many factors, such as the type of information reported, the position of the person and the level of threat the person faces as a result of the act of reporting. The protection measures should ensure that the reporting person is protected from all forms of retaliation, threat, disadvantage and discrimination linked to or resulting from the disclosure. In addition, the confidentiality of the reporting person needs to be preserved and his or her identity should only be disclosed with that person's explicit consent.

Further information on the protection of reporting persons can be found in the UNODC *Resource Guide on Good Practices in the Protection of Reporting*.[168]

[166] Article 6 (1) (a).

[167] See UNODC, *Speak up for Health! Guidelines to Enable Whistle-blower Protection in the Health-care Sector* (Vienna, 2021), pp. 17–23.

[168] UNODC, *The United Nations Convention against Corruption: Resource Guide on Good Practices in the Protection of Reporting Persons* (Vienna, 2015).

LEGISLATIVE EXAMPLE: SOUTH AFRICA

National Environmental Management Act (1998)

[...]

Access to environmental information and protection of whistle-blowers

[...]

31. (4) Notwithstanding the provisions of any other law, no person is civilly or criminally liable or may be dismissed, disciplined. prejudiced or harassed on account of having disclosed any information, if the person in good faith reasonably believed at the time of the disclosure that he or she was disclosing evidence of an environmental risk and the disclosure was made in accordance with subsection (5).

(5) Subsection (4) applies only if the person concerned:

(a) disclosed the information concerned to

(i) a committee of Parliament or of a provincial legislature;

(ii) an organ of state responsible for protecting any aspect of the environment or emergency services;

(iii) the Public Protector;

(iv) the Human Rights Commission;

(v) any Attorney-General or his or her successor;

(vi) more than one of the bodies or persons referred to in subparagraphs (i) to (v);

(b) disclosed the information concerned to one or more news media and on clear and convincing grounds believed at the time of the disclosure:

(i) that the disclosure was necessary to avert an imminent and serious threat to the environment, to ensure that the threat to the environment was properly and timeously investigated or to protect himself or herself against serious or irreparable harm from reprisals; or

(ii) giving due weight to the importance of open. accountable and participatory administration, that the public interest in disclosure of the information clearly outweighed any need for non-disclosure;

(c) disclosed the information concerned substantially in accordance with any applicable external or internal procedure. other than the procedure contemplated in paragraph (a) or (b), for reporting or otherwise remedying the matter concerned; or

(d) disclosed information which, before the time of the disclosure of the information, had become available to the public, whether in the Republic or elsewhere.

[...]

(7) No person may advantage or promise to advantage any person for not exercising his or her right in terms of subsection (4).

(8) No person may threaten to take any action contemplated by subsection (4) against a person because that person has exercised or intends to exercise his or her right in terms of subsection (4).

[...]

VICTIM PROTECTION AND ASSISTANCE

Victim protection measures

Victims of pollution crimes may be subjected to threats to their safety, in particular when they participate in criminal proceedings. Assistance for and protection of victims are addressed by article 25 of the Organized Crime Convention. States should also look beyond those provisions to their broader obligations towards victims under international law. For example, in the absence of a definition of "victim" under the Organized

Crime Convention, the term may be interpreted in the light of the larger body of international law on the rights of victims of crime. The Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power defines victims in the following way:

> 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.

A similar definition is included in the Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law.

Model legislative provision 28 proposes an adapted version of the definition of "victim" provided above. It also contains provisions that reflect the obligations under article 25 (1) of the Organized Crime Convention, including provisions for taking appropriate measures to ensure the protection of victims, their relatives and others close to them, and for granting those persons access to any other relevant existing protection measures or programmes in the State.

MODEL LEGISLATIVE PROVISION 28: PROTECTION OF VICTIMS

1. For the purposes of this [Act/Law/Chapter…], "victims" shall mean 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 an offence to which this [Act/Law/Chapter…] applies.

2. The [*insert name of relevant authorities*] shall take appropriate measures to ensure that victims are provided adequate protection if their safety is at risk. This includes measures to protect victims from retaliation, intimidation or harm by suspects, offenders or their associates.

3. The [*insert name of relevant authorities*] shall, as appropriate, further take the measures specified in paragraph 2 in relation to a victim's relatives [and domestic or de facto partner, …].

4. Victims shall have access to any existing protection measures or programmes under [*specify relevant Act/provisions…*].

It is essential to understand that gender affects the experiences of victims of organized crime. Using a gender-responsive lens in assessing the obligations provided for under article 25 is vital for ensuring adequate and effective protection and assistance for victims.[169]

Restitution and compensation

Pollution can have severe impacts on human health and well-being. It is associated with deaths, physical and psychological diseases, property loss and loss of livelihoods.[170] The impacts of pollution crimes on victims constitute violations of human rights. In that context, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes has noted the following:

> Effective remedies for violations of human rights law include the right of victims to have access to relevant information concerning violations and to effective and prompt reparation for harm suffered. Reparations can involve restitution, compensation, rehabilitation, satisfaction, guarantees of

[169] UNODC, *Issue Paper on Organized Crime and Gender*, p. 46.

[170] Rosemary Mwanza, "Compensation funds as a remedial mechanism for victims of corporate pollution in Kenya: a feasibility study", *Journal of Environmental Law*, vol. 33, No.3 (November 2021), p. 559.

> non-repetition, including changes in relevant laws and practices, as well as bringing to justice the perpetrators of human rights violations. Extrapolating from these principles, the right to an effective remedy requires, inter alia, the remediation of contaminated sites, compensation, the cessation of action or inaction that gives rise to impacts, the provision of healthcare and the dissemination of information to prevent recurrence and further, direct or indirect, harms.[171]

Under article 25 (2) of the Organized Crime Convention, State parties are required to establish appropriate procedures to provide access to compensation and restitution for victims of offences covered by the Convention. In the *Model Legislative Provisions against Organized Crime*, it is explained that compensation is understood to refer to payment for damage or loss, whereas restitution is understood to refer to measures which seek to restore a victim or victims to the situation they were in before the crime occurred. Though the Convention does not provide examples of how compensation or restitution could be implemented in practice, three possible mechanisms are suggested in the legislative guide to the Convention:

(a) Provisions allowing victims to sue offenders or others under statutory or common law torts for civil damages;

(b) Provisions allowing criminal courts to award criminal damages, or to impose orders for compensation or restitution against persons convicted of offences;

(c) Provisions establishing dedicated funds or schemes whereby victims can claim compensation from the State for injuries or damages suffered as the result of a criminal offence.[172]

Model legislative provision 29 is intended to provide guidance on the matters that States may wish to consider when developing laws on both restitution and compensation for victims of pollution crimes. Provisions on ensuring access to both restitution and compensation need to be included only if appropriate procedures for ensuring restitution and compensation in proceedings covered by this guide are not already available under domestic laws.

Paragraph 1 of model legislative provision 29 allows for courts to make an order for restitution or compensation when sentencing a convicted person independently of a request being made by the prosecutor. Although the model provision does not require the court to consider or order restitution or compensation, such approaches are possible. The model proposed ensures that victims are not required to seek compensation through other legal proceedings, such as civil proceedings, which may not be viable for many victims.

Paragraphs 2 and 3 state the aims of restitution and compensation and provide non-exhaustive lists of the content of court restitution and compensation orders. The provisions reflect the spirit and content of paragraphs 8 to 13 of the Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power.

Paragraph 4 is intended to ensure that the courts give due consideration to the means and ability of the convicted person when making a restitution or compensation order. Where the means of the offender are limited, priority should be given to the payment of compensation over payment of any other financial penalty. If the offender is unable to pay, paragraph 6 provides that a victim shall be eligible for State-funded compensation.

The model for restitution and compensation established in model legislative provision 29 is contingent upon the criminal conviction of the offender. It should be noted, however, that conviction-based restitution and compensation is not the only model available. States should consider whether the victims of pollution crimes are afforded effective access to restitution and compensation in cases where the offenders cannot be identified, located, extradited or prosecuted, or otherwise have insufficient financial resources to pay any compensation or restitution ordered.

[171] A/HRC/45/CRP.10, para. 6.

[172] UNODC, *Legislative Guide*, para. 420; see also Joseph Lelliott, "United Nations Convention against Transnational Organized Crime: article 25", p. 277.

MODEL LEGISLATIVE PROVISION 29: RESTITUTION AND COMPENSATION OF VICTIMS

1. Where an offender is convicted of an offence to which this [Act/Chapter/Law…] applies, the court may order the offender to pay restitution or compensation to any victim, in addition to or instead of any other sanction ordered by the court.

2. The aim of an order for restitution shall be the restoration of the victim to the position that the victim was in prior to the commission of the offence. An order for restitution may include one or more of the following forms of restitution:

(a) The return to the victim of property taken by the convicted person;

(b) Restoration or remediation of property damaged by the convicted person;

(c) The return to the victim of the value of the wrongful gain taken by the convicted person.

3. The aim of an order for compensation shall be to compensate the victim for any injury, loss or damage caused by the offender. This may include payment for or towards:

(a) Costs of medical, physical, psychological or psychiatric treatment incurred or to be incurred by the victim;

(b) Costs of physical and occupational therapy or rehabilitation incurred or to be incurred by the victim;

(c) Costs of necessary transportation, temporary childcare, temporary housing or the movement of the victim to a place of temporary safe residence;

(d) Lost income and due wages incurred by the victim, in accordance with national law and regulations regarding wages;

(e) Legal fees and other costs or expenses incurred by the victim, including costs related to the participation of the victim in the criminal investigation and prosecution process;

(f) Physical or psychological injury, emotional distress, or pain and suffering endured by the victim as a result of the crime committed against him or her;

(g) Any other costs or losses incurred by the victim as a direct result of the conduct of the offender and that the court considers to be reasonable in the circumstances.

4. When making an order for restitution or compensation, the court shall take into account the convicted person's means and ability to pay restitution or compensation and shall give priority to a restitution or compensation order over a fine.

5. The immigration status or the return of the victim to his or her country of nationality or habitual residence or other absence of the victim from the jurisdiction shall not prevent the payment of compensation or restitution under this article.

6. If the restitution or compensation cannot be paid by the sentenced person, the victim shall be eligible for compensation from [*insert name of national compensation fund*].

7. Where the convicted person is a public official whose actions constituting an offence to which this [Act/Chapter/Law…] applies were carried out under actual or apparent State authority, the court may order the State to pay restitution or compensation to the victim [in accordance with [*insert relevant national legislation*]]. An order for State compensation under this article may include payment for or towards any or all of the items under paragraph 3.

LEGISLATIVE EXAMPLE: BANGLADESH

Environmental Protection Act (1995, as amended by Environment Conservation (Amendment) Act, 2010)

[…]

15A. **Claim for compensation**

Where a person or a group of persons or the public suffers loss due to violation of a provision of this Act or the rules made thereunder or a direction issued under section 7, the person, group, public or, on behalf of them, the Director General may file a suit for compensation.[…]

Access to and participation in criminal proceedings

Article 25 (3) of the Organized Crime Convention provides the following:

> Each State party shall, subject to its domestic law, enable views and concerns of victims to be presented and considered at appropriate stages of criminal proceedings against offenders in a manner not prejudicial to the rights of the defence.

The appropriate stages and means for the views and concerns of victims to be presented and considered may vary across legal systems but, in general, may include the possibility of the victim appearing as a witness during trial, providing a victim impact statement for consideration during sentencing, or other forms of participation during trial, sentencing or other stages of criminal proceedings. In introducing or amending legislation to prevent and combat pollution crimes, States should ensure that appropriate measures for access to and participation in relevant proceedings are extended to victims.

There should, however, be no obligation on victims to participate in proceedings. Furthermore, the rights of the defence should be considered, noting that the views of the victim, if given at trial and not as part of witness testimony, may otherwise disclose evidence that has been excluded or infringe on an accused's right to know the case against them and confront witnesses.[173]

REMEDIATION

Like many other types of environmental crime, pollution crimes typically involve harm to the environment. National legislation for addressing pollution crime should provide for the possibility for remediation orders to be handed down in the event of pollution.

Remediation refers to steps taken to repair or mitigate harm that has been, may or will be caused to the environment. Where possible, it should involve environmental restoration but the impossibility of environmental restoration in a given case does not mean that other types of remediation should not be undertaken. Remediation requires assessing the negative impact of a pollution crime on the environment itself, determining what can reasonably be done to remedy that harm, and holding the person or persons who caused the harm accountable for their actions. Environmental remediation therefore reflects the "polluter pays" principle.

Under a remediation order the person causing the pollution may be required to cease certain acts, or take specific action, in order to prevent the continuation or cause of the pollution. That person may also be required to take positive action to restore any damage the pollution has caused to the environment, such as through removal of pollutants already emitted (or measures to compensate for their emission), restoration of soils, rivers or other water ecosystems, replanting of trees and other flora, or reintroduction of wild specimens of

[173] Joseph Lelliott, "United Nations Convention against Transnational Organized Crime: article 25", p. 278.

fauna if they have been affected by the damage caused by pollution crimes. It is important to note that the orders do not need to follow conviction for an offence; they can also be imposed administratively by competent authorities.

Restoration orders are a form of reparative justice, in the sense that they emphasize the remediation or prevention of harm in a punitive context. Restoration orders are particularly effective when used against corporate offenders, who will likely have the resources to carry out restoration and may otherwise simply incorporate fines or other similar sanctions into the cost of doing business.[174]

Model legislative provision 30 contains guidance for States that wish to incorporate such orders into their legal framework. The form of this type of order varies significantly in the various States that have already legislated such orders, as does the terminology used to refer to them. Key elements that States may wish to consider when developing legislation are included in the model provision.

Paragraph 1 of model provision 30 sets out the circumstances that justify use of an order and notes that an order may be issued to any person included in paragraph 2. The circumstances broadly refer to the contamination of any area by pollution; the release of pollutants causing, or likely to cause, harm; and any other circumstance arising from pollution causing, or likely to cause, harm. Paragraph 2 specifies to whom an order may be issued.

Paragraph 3 sets out the information that an order must contain. In addition to basic information such as to whom it is issued, when it was issued and the period for which it remains in effect, an order must specify in detail which actions must be taken and the penalties for non-compliance. The right of the person to whom an order has been issued to seek review of the order must also be indicated; the review may be conducted by an administrative body, tribunal or court, as appropriate.

Paragraph 4 lists the actions that can be required under a remediation order. The actions are framed broadly and encompass preventing or ceasing acts of pollution, remediating damage and restoring the environment, removing waste and paying compensation. States may, of course, consider additional actions they deem appropriate when drafting legislation.

MODEL LEGISLATIVE PROVISION 30: REMEDIATION ORDERS

1. The [*insert competent authority or officer]* may issue a remediation order to a person referred to in paragraph 2 of this article if the [authority/officer] reasonably believes that unlawful discharge, emission, release or introduction of a pollutant has occurred, is occurring or is likely to occur that has caused, or is likely to cause, directly or indirectly, harm to the environment or human health.

2. A remediation order may be issued to any of the following:

(a) Any person that the [authority/authorized officer/inspector] reasonably believes caused, permitted or materially benefited from circumstances from which the unlawful discharge, emission, release or introduction of a pollutant referred to in paragraph 1 occurred, is occurring or is likely to occur;

(b) The owner, manager or person in control of the land on which the harm has occurred, is occurring or is likely to occur;

(c) The owner, manager or person in control of any land, premises, vehicle, vessel, aircraft or equipment used in any activity which caused or contributed to the unlawful discharge, emission, release or introduction of a pollutant referred to in paragraph 1 has occurred, is occurring or is likely to occur.

[174] Rob White, "Reparative justice, environmental crime and penalties for the powerful", *Crime, Law and Social Change*, vol. 67, No. 2 (March 2017), p. 117.

MODEL LEGISLATIVE PROVISION 30: REMEDIATION ORDERS (*CONTINUED*)

3. A remediation order must include all of the following information:

(a) The grounds on which the order is issued;

(b) The name and address of the person or persons to whom it is issued;

(c) The date and time the order was issued;

(d) The period for which the order is in effect;

(e) The actions that must be taken to comply with the order;

(f) The penalty for not complying with the order;

(g) The right of the person or persons served with the order to request a review of the order, and instructions as to how review may be sought.

4. A remediation order may require the person or persons to whom it is issued to do any or all of the following:

(a) Take such action as may be necessary to prevent the cause, commencement or continuation of pollution or contamination of any area;

(b) Cease any actions causing or contributing to, or which may cause or contribute to, pollution of the area;

(c) Restore or remediate an affected area through active or passive measures, or both, including but not limited to the replacement of soil and the replanting of trees and other flora;

(d) Remove and lawfully dispose of any of the following things specified in the order:

(i) any waste or pollutant;

(ii) any vehicle, vessel or equipment used in any activity that caused or contributed to the unlawful discharge, emission, release or introduction of a pollutant referred to in paragraph 1 of this article;

(e) Pay any compensation specified in the order.

LEGISLATIVE EXAMPLE: ZAMBIA

Environmental Management Act (2011)

[…]

Environmental restoration order

105. (1) An inspector shall, where there is a discharge of a contaminant or pollutant into the environment in an amount, concentration or manner that constitutes a risk to human health or property, or that causes or has the potential to cause adverse effects, serve an environmental restoration order on:

(a) the owner, manager or person in control of the premises, vehicle, vessel, aircraft or equipment from which the discharge was or is being made;

(b) any person who, at the time the discharge occurred, was the owner, manager or person in control of the premises, vehicle, vessel, aircraft or equipment from which the discharge was made; or

(c) any person who caused or permitted the discharge.

(2) An environmental restoration order may require the person on whom it is served to take any measures that will assist in reducing or eliminating the risk or harm and to take any measures to:

(a) take such action as will prevent the continuation or cause of pollution;

(b) restore land, including the replacement of soil, the replanting of trees and other flora and the restoration as far as may be, of outstanding geological, archaeological or historical features of the land or the area contiguous to the land or area as may be specified in the particular order;

(c) take such action to prevent the commencement or continuation or cause of environmental hazard;

(d) cease to take any action which is causing or may contribute to causing pollution or an environmental hazard;

(e) remove or alleviate any injury to land or the environment or to the amenities of the area;

(f) prevent damage to the land or the environment, aquifers beneath the land and flora and fauna in, on or under or about the land specified in the order or land or the environment contiguous to the land specified in the order;

(g) remove any waste or refuse deposited on the land or sea specified in the order and dispose of the same in accordance with the provisions of the order;

(h) require the person on whom it has been served to restore the environment as near as it may be to the state in which it was before the asking of the action which is the subject of the order; and

(i) prevent the person on whom it is served from taking any action which would or is reasonably likely to cause harm to the environment.

[…]

LEGISLATIVE EXAMPLE: KENYA

Environmental Managements and Coordination Act (1999)

[…]

108. Issue of environmental restoration orders

(1) Subject to any other provisions of this Act, the Authority may issue and serve on any person in respect of any matter relating to the management of the environment an order in this Part referred to as an environmental restoration order.

(2) An environmental restoration order issued under subsection (1) or section 111 shall be issued to:

(a) require the person on whom it is served to restore the environment as near as it may be to the state in which it was before the taking of the action which is the subject of the order;

(b) prevent the person on whom it is served from taking any action which would or is reasonably likely to cause harm to the environment;

(c) award compensation to be paid by the person on whom it is served to other persons whose environment or livelihood has been harmed by the action which is the subject of the order;

(d) levy a charge on the person on whom it is served which in the opinion of the Authority represents a reasonable estimate of the costs of any action taken by an authorized person or organization to restore the environment to the state in which it was before the taking of the action which is the subject of the order.

(3) An environmental restoration order may contain such terms and conditions and impose such obligations on the persons on whom it is served as will, in the opinion of the Authority, enable the order to achieve all or any of the purposes set out in subsection (2).

(4) Without prejudice to the general effect of the purposes set out in subsection (2), an environmental restoration order may require a person on whom it is served to:

(a) take such action as will prevent the commencement or continuation or cause of pollution;

(b) restore land, including the replacement of soil, the replanting of trees and other flora and the restoration as far as may be, of outstanding geological, archaeological or historical features of the land or the area contiguous to the land or sea as may be specified in the particular order;

(c) take such action to prevent the commencement or continuation or cause of environmental hazard;

(d) cease to take any action which is causing or may contribute to causing pollution or an environmental hazard;

(e) remove or alleviate any injury to land or the environment or to the amenities of the area;

(f) prevent damage to the land or the environment, aquifers beneath the land and flora and fauna in, on or under or about the land or sea specified in the order or land or the environment contiguous to the land or sea specified in the order;

(g) remove any waste or refuse deposited on the land or sea specified in the order and dispose of the same in accordance with the provisions of the order;

(h) pay any compensation specified in the order.

LEGISLATIVE EXAMPLE: KENYA (*CONTINUED*)

(5) In exercising the powers under this section, the Authority shall:

(a) be guided by the principles of good environmental management in accordance with the provisions of this Act; and

(b) explain the right of appeal of the persons against whom the order is issued to the Tribunal or, if dissatisfied with the decision of the Tribunal, to superior courts.

109. Contents of environmental restoration orders

(1) An environmental restoration order shall specify clearly and in a manner which may be easily understood:

(a) the activity to which it relates;

(b) the person or persons to whom it is addressed;

(c) the time at which it comes into effect;

(d) the action which must be taken to remedy the harm to the environment and the time, being not more than thirty days or such further period as may be prescribed in the order within which the action must be taken;

(e) the powers of the Authority to enter any land and undertake the action specified in paragraph (d);

(f) the penalties which may be imposed if the action specified in paragraph (d) is not undertaken;

(g) the right of the person served with an environmental restoration order to appeal to the Tribunal against that order, except where the order is issued by a court of competent jurisdiction, in which case the right of appeal shall lie with superior courts.

(2) An Environmental Inspector of the Authority may inspect or cause to be inspected any activity to determine whether that activity is harmful to the environment and may take into account the evidence obtained from that inspection in any decision on whether or not to serve an environmental restoration order.

(3) The Authority may seek and take into account any technical, professional and scientific advice which it considers to be desirable for a satisfactory decision to be made on an environmental restoration order.

(4) An environmental restoration order shall continue to apply to the activity in respect of which it was served notwithstanding that it has been complied with.

(5) A person served with an environmental restoration order shall, subject to the provisions of this Act, comply with all the terms and conditions of the order that has been served on him.

(6) It shall not be necessary for the Authority or its Inspectors, in exercising the powers under subsection (2), to give any person conducting or involved in the activity which is the subject of the inspection or residing or working on or developing land on which the activity which is the subject of the inspection is taking place, an opportunity of being heard by or making representations to the person conducting the inspection.

[…]

CONCLUDING REMARKS

The purpose of the present guide is to provide support for States in enacting or strengthening domestic legislation for preventing and combating pollution crime through, in particular, the implementation of the Organized Crime Convention. To that end, the guide has outlined a range of issues that States will need to consider when enacting or strengthening such legislation, and provided model legislative provisions and relevant national and regional examples for consideration during that process.

The guide has provided readers with a broad, but not exhaustive, overview of the issues relevant to developing legislation for preventing and combating pollution crime from a criminal justice perspective, as well as the basic tools for legislators for enacting or strengthening such legislation. The guide has addressed key considerations of a broad nature (chapter I), general provisions (chapter II), offences and liability (chapter III), investigation (chapter IV), international cooperation (chapter V), prosecution (chapter VI), penalties and sentencing (chapter VII) and protection and assistance (chapter VIII).

It is also useful to identify what has not been covered by the guide, recalling that the primary target audience of the guide comprises policymakers, legislators and legislative drafters. Although the guide has touched upon a number of issues relating to the investigation, prosecution and adjudication of pollution offences, its content is not a comprehensive examination of the issues relevant for investigators, prosecutors or judges, as it focuses rather on addressing pollution crime from a criminal justice perspective. States must bear in mind that, although criminal justice approaches have their advantages, they also have limitations. More holistic legislative and policy approaches are needed in order to prevent and reduce pollution.

It is hoped that the present guide will serve as a valuable resource for Governments seeking to address the pressing issue of pollution crimes from a legislative perspective. By enacting or strengthening domestic legislation on pollution crimes, States should be better equipped not only to address the immediate threats posed by pollution crimes but also to contribute to environmental stewardship and a global effort to create a cleaner, healthier and more sustainable future for all.

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