

# TACKLING CRIMES THAT AFFECT OUR OCEAN



United Nations  
Office on Drugs and Crime

## Overview

How do we ensure the survival of life in our ocean? Are we on the losing side in the fight against the continued exploitation of our ocean and loss of marine biodiversity? Does the marine environment and its life warrant the mobilization of criminal justice tools for its preservation? Today, more than ever, the crucial relationship between a thriving ocean and the well-being of both current and future human generations prompts these urgent inquiries.

**“Crime and illegality threaten marine biodiversity and undermine the very essence of ocean life.”**

For centuries, the ocean remained largely overlooked and unregulated, with vast expanses lacking effective governance. Communities, often disconnected from maritime affairs, remained unaware of the immense potential harbored by the ocean. This gap in governance and awareness created fertile ground for exploitation, turning the ocean into a lucrative territory for illegal activities and criminal enterprises to thrive. Organized criminal groups exploit gaps in national compliance and enforcement regimes including criminal justice systems and take advantage of the ocean’s vastness and relative unexplored nature, including vulnerable value and supply chains by engaging, for instance, in crimes in the fisheries sector, trafficking and illegal dumping of waste in the ocean, corruption and other ancillary crimes.

These crimes have far-reaching and cross-sectoral impacts on economies, security, human health, and directly contribute to biodiversity loss and ecosystem degradation in the ocean. **Therefore, the achievement of SDG 14 is likely to fail unless States also take action towards achieving SDG 16, by improving criminal justice responses to crimes that affect marine biodiversity and mainstreaming such considerations into ocean conservation, risk mitigation and resource management policies.**

The linkage between criminal justice, anti-corruption measures, and crimes that affect the environment has already become an integral aspect of the international response to the biodiversity crisis and Nature-Based Solutions (NbS) and continues to gain traction in international environmental fora. However, it needs to be more prominently featured in the ocean agenda.

As recognition of the link between crime and illegality and marine biodiversity degradation grows, responses are beginning to emerge. States are increasingly recognizing the importance of incorporating criminal justice responses into ocean conservation and blue economy plans and aligning resources to meet these priorities.

The United Nations Office on Drugs and Crime (UNODC), as the lead UN agency in the fight against drugs and crime, plays a crucial role in combating various forms of crime relevant to the protection of the ocean, including [maritime crime](#) and [crimes that affect the environment](#). Its vast experience in these areas lies in providing technical assistance, facilitating partnerships, and promoting international cooperation.

UNODC collaborates with other intergovernmental organizations, non-governmental organizations, and the private sector to develop integrated responses to maritime environmental challenges. Partnerships with organizations like INTERPOL, the Food and Agriculture Organization (FAO), the UN Environment Programme (UNEP), and various regional fisheries management organizations (RFMOs) are vital in creating a cohesive strategy against transnational crimes affecting the ocean’s biodiversity. As there is a growing momentum and recognition of the importance of marine ecosystem protection, addressing breaches to safeguard biodiversity conservation becomes imperative. To this end, the use of criminal justice instruments is essential to achieve effective and sustainable results.

## Fisheries and Marine Species

The fisheries sector is vulnerable to multiple forms of crime, including illegal fishing, corruption, and trafficking in persons. Increasingly, organized criminal groups target the fisheries sector worldwide and cause the depletion of fish stocks, harming vulnerable communities, undermining the economies of coastal States and threatening food security. These groups exploit weaknesses and discrepancies inherent in national legislation and gaps in enforcement.

In line with its mandate, UNODC distinguishes and focuses on addressing two broad categories of crimes in the fisheries sector. First, *crimes committed along the fisheries value chain* that are closely linked to fishing and related activities, such as document fraud and fish fraud as well as related offences such as money-laundering, tax evasion, corruption, and trafficking in persons. Illegal fishing and related activities that violate national laws and international obligations are also included in this category; when such violations constitute “serious crimes”, the applicability of the UNTOC will be triggered. **Therefore, integrated fisheries management needs to be complemented by a criminal justice approach.**

The second category are *crimes associated with the fisheries sector* that have no direct connection with fishing or related activities, but are committed, for example on fishing vessels or in fish processing facilities, and which use fishing and related activities as cover for crimes such as trafficking in firearms or illicit drugs, piracy, and even terrorism.

Beyond these categories, flag states have due diligence duties when confronted with vessels engaged in illegal fishing, as indicated in the International Tribunal for the Law of the Sea (ITLOS) advisory opinion 2016. It is therefore essential to fully explore and expand the role of flag states in addressing IUU fishing including through use of criminal justice instruments.

### CRIMINAL JUSTICE SYSTEMS FOR ADDRESSING ENVIRONMENTAL CRIME CONVERGENCE AT SEA: THE CASE OF THE TOTOABA AND VAQUITA

The dwindling numbers of vaquita porpoises in the Gulf of California are primarily threatened by illegal gillnet fishing for totoaba, spurred by the lucrative international demand for totoaba swim bladders. This illegal trade is further complicated by the involvement of drug cartels and pervasive corruption, as criminal entities exploit ungoverned marine areas to conduct various illicit activities.

What role can criminal justice systems play in dismantling these criminal networks and rooting out the corruption that supports them? Could the deployment of innovative law enforcement techniques, such as advanced Maritime Domain Awareness (MDA) and surveillance technologies, be crucial in monitoring and preventing these interlinked crimes? Given the urgent conservation crisis faced by the vaquita and the high stakes involved in the totoaba trade, is there a pressing need for a coordinated, global law enforcement response?

This issue extends beyond environmental conservation into the realms of criminal justice, addressing legal and security challenges. It is essential to explore how a more assertive criminal justice response can not only prosecute offenders but also aggressively combat the corruption that enables and perpetuates these crimes.



UNODC supports Member States to enhance their capabilities' to address all crimes in the fisheries sector, covering areas from improvement of legislative frameworks to capacity building in fighting corruption. As part of this work, UNODC has developed a [Legislative Guide on Combatting Crimes in the Fisheries Sector](#), in partnership with the FAO. The Guide aims to add to the clarity and response by assisting States in enacting and strengthening domestic legislation through the legislative framework provided by the UNTOC.

Furthermore, the trafficking of marine species, including the illegal trade of endangered species, poaching, and smuggling of marine wildlife and their products not only undermines conservation efforts but also contributes to the depletion of marine populations, disrupts fragile ecosystems, and threatens the livelihoods of coastal communities dependent on marine resources. Addressing the trafficking of marine species requires coordinated international efforts, strengthened law enforcement, and enhanced collaboration between governments, conservation organizations, and local communities. UNODC plays a crucial role in this area, as part of its broader effort to combat wildlife trafficking, including as a member of the International Consortium on Combating Wildlife Crime (ICWC), a collaborative effort involving several international organizations with mandates related to wildlife conservation and law enforcement.



## Marine Pollution

Pollution crimes in the marine environment include activities that cause harm to the marine environment through the dumping or releasing of toxic material or other pollutants into the ocean, including the intentional or direct dumping of waste and other toxic substances, such as plastics or heavy oil. The most common sources of sea-based pollution include fishing and aquaculture, illegal or accidental dumping at sea from shipping, and offshore mining and extraction, including the extraction of minerals from the deep seabed. It is estimated that more than 150 million tons of plastics have accumulated in the world's ocean, while 4.6-12.7 million tons are added every year. As well as being toxic to marine life, polycyclic aromatic hydrocarbons (PAHs), found in crude oil, are very difficult to clean up and last for years in the sediment and marine environment. Discharge of cargo residues from bulk carriers can also pollute ports, waterways and the ocean.

There is an increased convergence between certain organized crime activities and pollution crime, with illicit operations ranging from local activities to large-scale intercontinental trafficking worth millions of USD. In many instances, vessels intentionally discharge illegal wastes, despite foreign and domestic regulation prohibiting such actions. An absence of national standards provides an incentive for some cruise liners to dump waste in places where penalties are inadequate and law enforcement is weak. The effectiveness of criminal justice instruments in addressing such discharges varies depending on the maritime zones of discharge and the jurisdiction of the flag state. **If we aim to combat the misuse of oceans as extensive and unregulated illegal dumping grounds, it is imperative to strengthen the role of criminal justice.**

Furthermore, riverine pollution crime, while primarily affecting freshwater bodies like rivers and lakes, also has significant implications for marine biodiversity as many rivers flow directly into the sea, carrying with them pollutants and contaminants from upstream sources. Combatting riverine pollution crime requires robust enforcement of environmental regulations, effective monitoring and surveillance systems, as well as public awareness and community engagement initiatives to promote responsible stewardship of freshwater resources.

UNODC has implemented activities in support of strengthening the criminal justice systems' response to marine pollution, including through maritime pollution control exercises to enable authorities involved in combating maritime pollution to identify legal and operational strategies to enhance coordination and capabilities from pollution



detection to prosecution, and is increasingly focusing its attention on the role of flag states in tackling organized criminal activities, including environmental ones. As part of this work, UNODC has developed a Legislative Guide on Combatting Pollution Crime and a [Legal Manual on Pollution Crimes in the Marine Environment](#). This Manual aims to assist States in establishing robust legislative frameworks and classifying pollution crimes as serious crimes, in line with the UNTOC, by comprehensively addressing areas pertinent to the operational implementation of treaty obligations, with the overarching goal of preventing and combating pollution crimes in all their forms.

Similarly, in the framework of the Intergovernmental Negotiating Committee (INC) to develop an international legally binding instrument on plastic pollution, including in the marine environment, UNODC has advocated for proportional enforcement measures to ensure compliance with the standards set in the new instrument for all violations, including the illicit trade in plastic waste and intentional dumping of plastic waste at sea, but also to investigate, prosecute and penalize the most grievous actions conducted by legal and individual persons through the criminal justice system (see UNODC's issue paper on [The International Regulation of Marine Plastics Pollution and Criminal Law](#)).



## Area-Based Management Tools (ABMTs)

The Kunming-Montreal Global Biodiversity Framework set an ambitious global target to conserve and manage 30% of marine and coastal areas by 2030, referred to as the 30x30 agenda. Despite significant progress in designating new Marine Protected Areas (MPAs) and accelerating ocean conservation efforts, the effectiveness of area-based management tools and other protection regimes remains compromised without effective monitoring and robust enforcement by law enforcement agencies, especially against crimes in the maritime environment. While there has been an increase in marine conservation efforts, most coastal States still lack the basic resources and capabilities needed to adequately govern and monitor their maritime domains and regulate the activities taking place in protected areas.



The 2030 targets translate to a need for enhanced governance and enforcement at sea, particularly concerning MPAs, as countries aim to step up their ocean conservation efforts. Increasing maritime security and improving fisheries management, therefore, can play a major role for safeguarding MPAs and accelerating the achievement of the 30x30 agenda.

MPAs represent maritime spaces where, by definition, biodiversity protection is more important than elsewhere, which often incurs stricter penalties for violations of regulations pertaining to biodiversity protection. **Therefore, criminal justice instruments need to be calibrated to the special considerations required for protecting biodiversity in MPAs, in particular from the perspective of flag state jurisdiction, in relation to penalties pertaining to marine pollution and illegal fishing.**

In response, UNODC supports MDA exercises and the protection of identified MPAs through the coordination of a joint satellite technology platform. UNODC also provides technical assistance in the design of MPA governance and management plans for establishing clear roles and responsibilities for maritime law enforcement agencies. This includes supporting the enhancement of regional border management strategies to ensure stronger protection of maritime zones and MPAs by linking conservation and law enforcement in the identification and management of ABMTs.





## Biodiversity Beyond National Jurisdiction

The high seas represent more than 60% of the surface of the ocean and almost half of the surface of the globe. The use of the high seas provides humanity with invaluable ecological, economic, social, cultural, scientific and food security benefits. However, these spaces are subject to increasing pressure due to human activities, pollution, overexploitation of resources, climate change and the decline in biodiversity. In the making for more than a decade, 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 (BBNJ Agreement), is a decisive turning point in international law of the sea to protect the ocean, promote equity and fairness, tackle environmental degradation, fight climate change and prevent biodiversity loss in the high seas.

The BBNJ agreement sets up a specific procedure to create high seas MPAs, which includes the submission of MPA proposals by one or several States Parties, an evaluation by a Scientific and Technical Body (STB), a consultation phase and a formal adoption that can be done by a 3/4 majority vote. While the first BBNJ Conference of the Parties (COP) will have to decide on the modalities of the operation of the entire institutional framework, such as the STB, that will allow for submission of MPA proposals, current enforcement challenges encountered within MPAs under national jurisdiction hint at the even greater difficulty in monitoring and enforcing MPAs in areas beyond national jurisdiction.

On the high seas, flag states are responsible for effectively exercising jurisdiction and control over vessels flying their flag. Beyond the role of coastal states in enforcing laws which can protect the biodiversity through criminal justice responses, flag state enforcement is crucial as it ensures that vessels adhere to international and national regulations regarding environmental protection and marine biodiversity. **This jurisdiction is nearly exclusive on the high seas, permitting flag states to take measures against illegal activities conducted on their vessels, and therefore making their role even more crucial in addressing illegal activities at sea.**

In response, UNODC is launching initiatives to support flag states in increasing their capacity for monitoring vessels and supporting the criminal justice systems operating under flag state jurisdiction. This includes exploring ways to connect detection of illegal activities in MPAs, reporting to flag states and capacities to respond effectively. In addition, to address challenges related to the BBNJ, UNODC will continue leveraging its expertise in the development of legal tools and reform, gap assessments, practical training for maritime law enforcement, investigation, and evidence collection to support the future implementation and enforcement of the Agreement. This includes building capacity in MDA and surveillance capabilities, training on Law of the Sea and pertinent legal mechanisms and promoting interventions for strengthening cross-agency coordination and regional cooperation. This will draw from the extensive expertise of UNODC in the area of addressing maritime crime globally.

## Climate Change

The ocean is the planet's greatest carbon sink, absorbing one-third of carbon dioxide produced by humans and 90 percent of heat created by global warming. Nearly anything that disrupts marine ecosystems diminishes the capacity of the ocean to regulate the climate. Higher temperatures and increasing ocean acidity caused by carbon emissions, when combined with unsustainable fishing and widespread marine pollution, have a higher detrimental impact on marine life and ocean climate resilience.

In 2015, when countries submitted their intended Nationally Determined Contributions (NDCs), ahead of and immediately following the 2015 UNFCCC COP 21 in Paris, 112 out of 161 NDCs (i.e., 70%) acknowledged climate change vulnerability of coastal and marine ecosystems and communities and the role of ocean-based solutions for mitigation and adaptation. However, despite the many ocean-inclusive NDCs, many did not commit to concrete measures. While COP28's Global Stocktake invites Parties to preserve and restore the ocean and coastal ecosystems and scale up, as appropriate, ocean-based mitigation action, most coastal states still lack the basic resources and capabilities needed to monitor their maritime domains and regulate maritime activities.

A surge in crimes in the fisheries sector, marine pollution offenses and violations of MPAs underscores the critical need for enhanced law enforcement at sea to drive effective ocean climate action and safeguard blue carbon sinks namely mangroves, coral reefs, and seagrass.

The intricate relationship between climate change and crimes that affect the ocean requires a profound reassessment of our global maritime security strategies. As outlined in the findings of the [UNODC-World Wildlife Fund \(WWF\) analysis paper](#) launched at COP27 exploring the nexus between crimes that affect the environment, biodiversity loss and climate change, it is recommended to integrate law enforcement and the criminal justice system into conservation and climate action efforts by encouraging more dialogue and cross-pollination between criminal justice actors, maritime actors, ocean scientists and climate experts.

In addition, the UNODC-WWF analysis also suggests climate change is increasingly viewed as a driver of crime. For instance, as climate change threatens

**“Global efforts to promote ocean climate action must include initiatives to combat crimes that affect the marine environment as well as the corruption that enables the exploitation of our ocean”**

marine ecosystems, altering fish migration patterns, it inadvertently boosts illegal fishing activities. The cascading effects of climate change, including economic hardship and displacement induced by rising sea levels and severe weather events, can amplify piracy, smuggling, and trafficking as communities seek alternative livelihoods or are compelled to migrate. The paper underscores the need for a unified approach that integrates environmental science, sociology, and criminology, aiming to design policies that not only counteract the immediate threats but also mitigate the long-term impacts of climate change on maritime security and ocean conservation.

## Coastal Communities

The UN Decade of Ocean Science for Sustainable Development (2021-2030) provides a critical opportunity to advance a more socially just and sustainable blue economy to improve the lives of millions of people living in coastal communities, globally, whose livelihoods, cultures and identities depend on healthy marine ecosystems. While State actors are at the forefront of ensuring maritime security and promoting ocean conservation efforts, it is increasingly important to engage with coastal communities which are the most vulnerable to organized crime, in developing coherent and comprehensive approaches to maritime security and ocean conservation challenges. Reduced fish stocks, stricter fisheries regulations, climate change and inability to derive decent livelihoods from fishing activities have pushed fishers to engage in criminal activities, mostly drug trafficking. UNODC is working closely with coastal communities, the most vulnerable to marine biodiversity loss, maritime environmental crime and other forms of maritime crime. UNODC provides technical assistance to strengthen human security and resilience against transnational organized crime in coastal communities, including programs on crime prevention for youth groups and specific considerations on gender and human rights.



# The UNODC Approach



## Strengthening Legal Frameworks

Developing and enforcing international, regional, and national laws and regulations aimed at combating crimes in the fisheries sector, marine pollution, and other criminal activities harming marine ecosystems. The UNODC Legislative guides on crimes in the fisheries sector and marine pollution are useful tools to support Member States in the process of strengthening these legal frameworks. Specific focus is given to the key role and responsibilities of flag states in addressing crimes that affect the marine environment.

## Cooperation and Partnerships

Strengthening collaboration among agencies, governments, international organizations, civil society, academia, and the private sector to address crimes that affect the marine environment. This includes inter-agency collaboration both at national and regional level as well as building of partnerships at the international level to increase understanding on the trends and modus operandi used by organized criminal groups and design tailored responses.

## Building Capacity

Increasing capacity and cooperation among law enforcement agencies at various levels to effectively patrol and monitor marine areas, detect illegal activities, and prosecute offenders. This involves technical assistance in surveillance technologies, training law enforcement personnel, promoting international cooperation through mechanisms such as joint patrols and information sharing, as well as increasing capacities for investigators, prosecutors and judges operating in both coastal and flag states.

## Fostering Innovation and Technology

Harnessing technological innovations such as satellite monitoring, machine learning, unmanned aerial vehicles and, data analytics to improve surveillance, monitoring, and enforcement efforts in the maritime domain. Investing in research and development of sustainable fishing practices, alternative livelihoods, and eco-friendly technologies can also help reduce pressures on marine ecosystems and fight criminality in the sector.



## Raising Awareness

Engaging in prevention and awareness raising activities to reduce vulnerabilities to crimes affecting the marine environment and raising awareness amongst law enforcement agencies and communities on the importance of addressing crimes that affect the marine environment and their consequences.

This comprehensive approach not only aims to leverage criminal justice instruments for greater ocean conservation action but also seeks to ensure sustainable ocean management by addressing the interconnected challenges of organized crime at sea and marine biodiversity protection.