

Recognition of Maritime Environmental Crimes within International Law

A New Global Paradigm for the Protection and Preservation of the Marine Environment

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15.1 INTRODUCTION

Maritime environmental crimes are perpetrated in every part of the ocean and include a vast array of activities, mostly related to ship-source pollution, particularly accidental and wilful oil discharges, which are a major threat to the marine environment and human health, accounting for most of the oil pollution in the ocean. These crimes take place across the whole shipping sector, from unseaworthy vessels engaged in illegal, unreported and unregulated fishing, to oil tankers and luxury cruise liners.¹

Despite a decline in accidental and intentional discharges in recent years, the impact of human-produced incidents greatly offsets natural processes, given the large volumes of oil that can be released in a single incident. It is estimated that 53 per cent of all petroleum reaching the marine environment is human-produced and occurs near coastlines, while natural processes account for the rest.² It is also estimated that most of the 2.1Mt of oil discharged every year into the sea goes undetected.³

Moreover, as a result of the ocean being interconnected and impermeable to any political or legal divisions, maritime environmental crimes happening in one part of

¹ 'Japanese Shipping Company Fined \$1.5 Million for Concealing Illegal Discharges of Oily Water': www.justice.gov/opa/pr/japanese-shipping-company-fined-15-million-concealing-illegal-discharges-oily-water; 'Cruise Line Ordered to Pay \$40 Million for Illegal Dumping of Oil Contaminated Waste and Falsifying Records': www.justice.gov/opa/pr/cruise-line-ordered-pay-40-million-illegal-dumping-oil-contaminated-waste-and-falsifying 'Marine pollution: thousands of serious offences exposed in global operation': www.europol.europa.eu/newsroom/news/marine-pollution-thousands-of-serious-offences-exposed-in-global-operation (last accessed August 2021).

² S. Polinov, R. Bookman and N. Levin, 'Spatial and temporal assessment of oil spills in the Mediterranean Sea' (2021) 167 *Marine Pollution Bulletin*, 1, 8.

³ N. Giovannini L. Melica, E. Cukani, M. Giannotta and M. Zingoni, 'Addressing environmental crimes and marine pollution in the EU: legal guidelines and case studies' (2013) *Droit au Droit*, 36.

the ocean will affect the whole ocean. No single State is able to tackle the causes and consequences of these crimes on its own. Indeed, the existing legal rules addressing spatial and functional jurisdiction at sea result in complex multijurisdictional challenges that can cause conflict of jurisdictions and, consequently, the ineffectiveness of international law to prevent and combat maritime environmental crimes. Specific legal rules addressing maritime environmental crimes are also lacking.

The harm and damage caused by maritime environmental crimes to vast areas of the ocean and coastlines, together with destruction of vulnerable and fragile marine ecosystems and devastation of marine life, affect the livelihood of many coastal communities and have an impact on economic activities that depend on the ocean, including international navigation. They also cause psychological distress and can seriously affect the wellbeing of entire populations. Despite improvements in oil-spill response, cleanup and restoration methods, restitution of affected areas is generally very difficult, in addition to being extremely costly and time consuming, lasting for several decades.⁴ In some cases, damage is simply irreparable.

Maritime environmental crimes are committed to avoid compliance with international rules and regulations, thus obtaining substantial financial gain by not calling into port to use the necessary facilities and avoiding procedures established under national and/or international law, which are time-consuming and entail significant costs. These crimes are a quick and inexpensive solution, and the chances of criminals getting caught, prosecuted or convicted are very small.⁵ Indeed, perpetrators are organized and act in a concerted and evasive manner, with the aim of committing these crimes at sea, taking advantage of existing gaps and overlaps in international law.

No specific data record the value of maritime environmental crimes, but they do pay off.⁶ The rewards of maritime environmental crimes can be seen, for example, in the fact that illegal disposal can save a ship owner anywhere from US\$80K–220K every year, depending on the size and age of the ship, the number of days at sea and how well it is maintained, which can represent 5–12 per cent of a ship's operating costs.⁷

Maritime environmental crimes are a global problem that has been severely overlooked. This is chiefly due to lack of awareness but also to absence of a clear

⁴ This is the case of the pollution caused by the 1989 *Exxon Valdez* oil spill disaster, which has taken several decades to clean up: www.justice.gov/opa/pr/united-states-and-state-alaska-opt-not-recover-additional-damages-exxon-mobil-under-reopener (last accessed August 2021).

⁵ B. Vollaard, 'Temporal displacement of environmental crime: evidence from marine oil pollution' (2017) 82 *Journal of Environmental Economics and Management*, 169, 172.

⁶ Overall, Europol estimates the annual value of transnational environmental crime to be worth US\$70–213B. See EnviCrimeNet Intelligence Project on Environmental Crime Report on Environmental Crime in Europe (2015): www.envicrimenet.eu/images/docs/ipcc_report_on_environmental_crime_in_europe.pdf (last accessed August 2021).

⁷ Vollaard (n 5).

sense of direction by States to address these crimes and to do so in a collective manner, in order to improve the international legal response to maritime environmental crimes. These include, for example, the proposal for recognition of ecocide as a new international crime.⁸

This chapter suggests that a new global paradigm is needed for protection and preservation of the marine environment, in the shape of a rule of law that is able to deliver improved collective and effective legal responses to address maritime environmental crimes, in other words: departing from the law as it stands.

15.2 CONCEPTUALIZATION

Maritime environmental crimes can be broadly defined as acts committed at sea that breach national and/or international law, causing harm or damage to the marine environment. This broad definition includes acts perpetrated within and beyond national jurisdiction, as well as pollution⁹ from different sources, including ship-source pollution, such as illegal dumping,¹⁰ especially of oil and oil-bunkering, or pollution from offshore installations and structures or cables and pipelines.

Notwithstanding, there is no set definition of maritime environmental crimes, nor does international law criminalize acts or conduct considered as such. Criminalization only exists under national law, subject to States' discretion.¹¹ Maritime environmental crimes are not permitted under international law, but they are also not subject to collective and international criminal suppression, despite the fact that they are a major threat facing the marine environment and humankind.

The proposed concept of maritime environmental crimes must be based on the recognition that individually or collectively, environmental rights are an extension of human rights. These include the right to a healthy environment, but also the right of access to information, public participation in decision-making and access to

⁸ STOP Ecocide Foundation, Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text, June 2021: <https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/h624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf> (last accessed August 2021).

⁹ Art. 1(1)(4) UNCLOS defines 'pollution of the marine environment' as the introduction by man, directly or indirectly, of substances or energy into the marine environment, which result or are likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.

¹⁰ Art. 1(1)(5) UNCLOS defines 'dumping' as any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea, and of vessels, aircraft, platforms or other man-made structures at sea. It excludes incidental disposals or those resulting from normal operations or the placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the Convention.

¹¹ In the case of the European Union, Member States are subject to specific obligations under EU law: Directive 2009/123/EC of the European Parliament and of the Council of 21 October 2009, amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements.

justice in environmental matters, all of which reinforce the connection between the human element and the environment.

Currently, several international and regional human rights instruments include references to the environment, but no international human rights legal instrument expressly mentions the ocean.¹² Furthermore, although there is clearly a collective interest in protection and preservation of the marine environment,¹³ international law has not made the right of each State to intercede on behalf of the marine environment in areas subject to the jurisdiction or sovereignty of other States. One State may only seek legal action against another State based on the latter's responsibility for damage suffered, and not representing any community or collective interest, or on the basis of an *actio popularis* as a result of such interest being affected.¹⁴ This is most remarkable in the high seas, where all States have a clear interest in protecting and preserving the marine environment.¹⁵

Therefore, development of the notion that marine environmental rights are an extension of human rights will undoubtedly reinforce the theoretical basis of the new paradigm, which will, in turn, support the concept of maritime environmental crimes. Recognition of maritime environmental crimes must also be based on the acknowledgement that these crimes are a global problem and not one exclusively subject to national jurisdiction. Indeed, consistent with the notion in the law of the sea that problems of the ocean are interrelated and must be considered as a whole, an environmental crime committed at sea is a crime against the whole ocean. It is the marine environment and ultimately humanity that are at stake.

¹² I. Papanicolopulu, *International Law and the Protection of People at Sea* (Oxford: Oxford University Press, 2018), 84–87, 99; V. Becker-Weinberg, 'Time to get serious about combating forced labour and human trafficking in fisheries' (2020) 36 *The International Journal of Marine and Coastal Law*, 1–26.

¹³ Art. 30 Charter of Economic Rights and Duties of States, UNGA Resolution 3281 (XXIX), 12 December 1974. The International Court of Justice recognized 'that the environment is not an abstraction but represent the living space, the quality of life and the very health of human beings, including generations unborn'. See *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, I.C.J. Reports 1996, para. 29; *Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, Judgment, I.C.J. Reports 1997, para. 140.

¹⁴ See M. Fitzmaurice, 'International responsibility and liability', in: D. Bodansky, J. Brunnée and E. Hey (eds.), *The Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007), 1020–1022. For an interpretation of Art. 288(1) UNCLOS allowing a State to pursue a case based on community interests see R. Wolfrum, 'Enforcing community interests through international dispute settlement: reality or utopia', in: Ulrich Fastenrath, Rudolf Geiger, Daniel-Erasmus Khan, Andreas Paulus, Sabine Von Schorlemer and Christoph Vedder (eds.), *From Bilateralism to Community Interest: Essays in Honour of Judge Bruno Simma* (Oxford: Oxford University Press, 2011), 1132–1145; Also see B. Simma, 'From bilateralism to community interest in international law' (1994) 250 *Recueil de cours de l'Académie de Droit Internationale de La Haye*, 217–384.

¹⁵ Art. 87(2) UNCLOS. See *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v. France) Case*, I.C.J. Reports 1995, para. 64.

International environmental law is a combination of fragmented international legal instruments and general principles and rules, included in both binding and non-binding instruments. No overarching normative framework applies to international environmental law, despite the fact that there have been calls for adoption of 'a comprehensive and unifying international instrument that gathers all the principles of environmental law'.¹⁶

However, like most, if not all, fields of international law, international environmental law suffers from several gaps and shortcomings. These are mostly the result of lack of political compromise and consensus between States, as well as the fact that implementation of international environmental law at national level varies and, consequently, hinders the possibility of ensuring a coherent international legal system. Yet, despite sparse customary international environmental law, certain rules and principles have become widely accepted and recognized by international courts and tribunals as part of the legal corpus that forms international environmental law, such as the obligation not to cause transboundary harm or damage.¹⁷

With respect specifically to protection and preservation of the marine environment, the entry into force of the United Nations Law of the Sea Convention (UNCLOS)¹⁸ altered the perception of the relation between States and the ocean, giving way to awareness of the interconnectivity of different marine ecosystems and an understanding of the duty to cooperate as a fundamental principle in preventing pollution of the marine environment. The Convention also replaced the previously dominant reactive approach towards protection and preservation of the marine environment, with adoption of preventive measures and control of the sources of pollution. Moreover, UNCLOS comprises the notion that the obligation to protect and preserve the marine environment is connected with States' exercise of sovereignty and jurisdiction.

Nonetheless, at present no international legal regime specifically criminalizes and/or requires States to criminalize and punish acts and conduct that cause harm or damage to the marine environment.¹⁹ Indeed, although protection and preservation of the marine environment has rightly captured global attention, little or no

¹⁶ United Nations, Report of the Secretary-General, Gaps in International Environmental Law and Environment-related Instruments: Towards a Global Pact for the Environment, 30 November 2018, ref. UN Doc A/73/419, 2.

¹⁷ In the context of the law of the sea, see Art. 194(2) UNCLOS. Also see V. Becker-Weinberg, *Joint Development of Hydrocarbon Deposits in the Law of the Sea* (Berlin, Heidelberg: Springer-Verlag, 2014), 116–120.

¹⁸ 1833 UNTS 3.

¹⁹ The International Convention for the Prevention of Pollution from Ships of 1973, as modified by the Protocol of 1978 (MARPOL 73/78), 1340 UNTS 62, includes certain provisions requiring some form of sanctioning, although not comprehensively. Customary international law does not make damage a requirement for state liability, see *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area*, Advisory Opinion (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), 1 February 2011, Case n. 17, paras. 178, 179, 210.

consideration has been given to the recognition of maritime environmental crimes in international law. Furthermore, in addition to the absence of an international effective response to tackle these crimes, the multijurisdictional challenge resulting from the intricate legal rules applicable to spatial and functional jurisdiction at sea have contributed to a permissive setting in which maritime environmental crimes take place, often going unreported, undetected and unpunished.

15.3 THE MULTIJURISDICTIONAL CHALLENGE

In order to overcome the multijurisdictional challenge caused by the rules on spatial and functional jurisdiction at sea, it is necessary to tackle existing gaps and overlapping rules that cause conflict of jurisdictions and, consequently, the ineffectiveness of international law to prevent and combat maritime environmental crimes. In this regard, the *M/V “Norstar” Case (Panama v. Italy)* addressed the possibility of non-flag States exercising prescriptive jurisdiction on the high seas where flag States traditionally enjoy freedom of navigation.²⁰ This development in the interpretation and application of international law reinforces the ground-breaking approach required for development of a new paradigm, which, together with innovative solutions available in State practice, could have a game-changing effect, such as the exercise of extraterritorial jurisdiction over maritime environmental crimes.²¹

15.3.1 Spatial Jurisdiction

Depending on where maritime environmental crimes are committed and the location of the infringing vessel, the applicable law and jurisdiction can vary. This can result in crimes being committed out of sight of any national authority and/or beyond the reach of any law enforcement arm. It can also lead to near-impossible timely and effective law enforcement operations.

The ocean is divided into areas that are subject to some measure of jurisdiction by coastal States and areas that cannot be claimed by or allocated to any State. Areas within national jurisdiction are the territorial sea, internal waters, international straits, archipelagic waters, contiguous zones, exclusive economic zones (EEZ) and the continental shelf.²² The measure of jurisdiction enjoyed by States in these areas varies. In some cases (for example, the territorial sea and internal waters) coastal States have rights of sovereignty; in others (such as the continental shelf,

²⁰ *The M/V ‘Norstar’ case (Panama v. Italy)*, Judgment, 10 April 2019, ITLOS Case No. 25, www.itlos.org/fileadmin/itlos/documents/cases/case_no.25/Judgment/C25_Judgment_10.04.pdf (last accessed August 2021). See V. Becker-Weinberg, ‘The M/V “Norstar” Case (Panama v. Italy)’, in: *Il Diritto Marittimo* (2019), 760–766.

²¹ D. Guilfoyle, ‘Article 92’, in: A Proelss (ed.), *United Nations Convention on the Law of the Sea (UNCLOS) A Commentary* (Munich: C.H. Beck Verlag, 2017), 234.

²² Arts. 2, 8, 34, 46, 33, 55 and 76 UNCLOS.

the EEZ and, where established, the contiguous zone) they may exercise only limited sovereign and jurisdictional rights. Maritime areas beyond national jurisdiction are the high seas and the Area.²³

The rights of foreign ships or vessels – terms not defined and used interchangeably in UNCLOS – vary from one maritime zone to the other. Most importantly, a foreign ship enjoys the right of innocent passage through the territorial sea on condition that passage is innocent.²⁴ This also means that a foreign ship does not engage in ‘any act of wilful and serious pollution contrary to the Convention’.²⁵ That seems to preclude accidental pollution, in addition to creating uncertainty as to the meaning of ‘wilful’ and ‘serious pollution’, giving room for some level of discretion.²⁶ In the EEZ and the high seas the principle is that of freedom of navigation. There is no general right of innocent passage in internal waters; there, the coastal State may board a foreign ship and enforce its laws against the vessel and those on board.²⁷

15.3.2 *Functional Jurisdiction*

Central to the challenge caused by functional jurisdiction at sea is the principle of flag State pre-emption. On the one hand, a flag State enjoys the ‘monopoly’²⁸ of law enforcement at sea regarding ships flying its flag. On the other hand, the increasing number of ships at sea and the growing facilitation of movement of persons and goods across borders make it impossible for any flag State to monitor all ships flying its flag, as well as ensure compliance with national laws on pollution and enforcing the law.²⁹ This is even more challenging in the case of flags of convenience, where

²³ Arts. 1(1) (Part XI) and 86 UNCLOS. Arts. 1(1) UNCLOS defines ‘Area’ as ‘the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.’ Provisions governing the Area are contained in Part XI UNCLOS. The high seas are governed by provisions of Part VII. According to 86 UNCLOS thereof, Part VII applies to ‘all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State.’

²⁴ Arts. 17, 18, Art. 19(1), (2)(a), 24(1), 52(1) and 54 UNCLOS. Similarly, Arts. 38, 39 and 45 UNCLOS recognize the rights of all ships to enjoy transit passage in straits used for international navigation.

²⁵ Art. 19(2) lit. h) UNCLOS. Also see Art. 211(4) UNCLOS.

²⁶ R. Barnes, ‘Article 19’, in: A. Proelss (ed.), *United Nations Convention on the Law of the Sea* (n 21), 194–195.

²⁷ The exception is provided in Art. 8(2) UNCLOS.

²⁸ Freedom of navigation is not an absolute freedom, being subject to exceptions: Arts. 92(2), 58(1), (3), 78(2), 87(1)(a) and (2) UNCLOS. The most established exception is the universal jurisdiction to seize ships engaged in piracy, see Art. 105 UNCLOS. See *SS Lotus (France v. Turkey)*, 1927, Permanent Court of International Justice (PCIJ), Ser A, No 9, 25 (7 Sept), paras. 64–5. Also, MARPOL 73/78 determines that violation of its requirements shall be prohibited, and sanctions shall be established by flag States.

²⁹ Art. 211(2) UNCLOS.

there is no genuine link between the flag State and the ship. In these cases, flag States are simply unable and/or unwilling to enforce international law.³⁰

There are also challenges facing coastal States and port States, as both are subject to specific obligations under the law of the sea to protect and preserve the marine environment, although they have limited prescriptive and enforcement jurisdiction within national maritime areas. Accordingly, coastal States have restrictive powers when a flag State fails to fulfil its obligations regarding protection and preservation of the marine environment, which are dependent on adoption of certain safeguards.³¹

Moreover, flag States that fail to protect and preserve the marine environment under domestic law are subject to the principle of state responsibility for breach of their general obligation to protect and preserve the marine environment.³² In these cases, the basis for responsibility lies in obligations inherent to the concept of sovereignty as both control and responsibility are considered in the context of international accountability.

15.3.3 *Conflict of Jurisdictions*

A difficult legal and multijurisdictional challenge arises when a coastal State or a flag State is unable to enforce its own jurisdiction. In these cases, it is possible to have an overlap or conflict of jurisdictions that may inevitably result in ineffectiveness of international law. For example, a coastal State having evidence that a vessel is polluting in its territorial sea or EEZ may be unable to exercise its enforcement powers if the flag State exerts its prerogative to exercise jurisdictional pre-emption, even if the latter effectively fails to do so in practice.³³ Alternatively, the flag State of a vessel engaged in pollution in the territorial sea or EEZ cannot intervene if such conduct is tolerated by the coastal State, because any enforcement action in the territorial sea or EEZ without the consent of the coastal State would be a breach of the law of the sea.

In both cases, one of the States is (willingly or unwillingly) creating a permissive environment for maritime environmental crimes to take place. The result is international law becoming ineffective, despite existing legal rules allowing for the exercise of jurisdiction and enforcement powers. In these cases, crimes would go unpunished, despite being detected and reported.

³⁰ Art. 91(1) UNCLOS.

³¹ Arts. 19(2)(h), 21(1)(f), 25, 27(5), 42(1)(b) and (2), 56(1)(b)(iii) and (2), 73(1), 87(2), 94(3)(a), 109(4), 110, 111, 194(3)(b) and (4), 211, 218, 220, and 224–227 UNCLOS. On safeguards, see V. Becker-Weinberg, 'Article 223' to 'Article 233', in: A. Proelss (ed.), *United Nations Convention on the Law of the Sea* (n 21) 1527–1566.

³² Art. 192 UNCLOS.

³³ Arts. 27(3) and 27(1) and 73 UNCLOS. See R. Barnes, 'Article 27', in: A. Proelss (ed.), *United Nations Convention on the Law of the Sea* (n 21), 234; and J. Harrison, 'Article 73', in: A. Proelss (ed.), *United Nations Convention on the Law of the Sea* (n 21) 556.

15.4 THE IMPORTANCE OF INTERNATIONAL COOPERATION

Important differences exist between environmental crimes taking place at sea and those on land. The maritime dimension of environmental crimes is a departure from the factual and legal reality of environmental crimes taking place on land, within the territory of one single State or across the territory of more than one State. On land, evidence of environmental crime, such as illegal transportation of waste, most notably hazardous waste and increasingly of plastic,³⁴ is more ample and easily obtained. Likewise, existing legal regimes addressing environmental crimes on land are greatly advanced and provide a more efficient response, particularly regarding responsibility and liability, including that of corporations.

Perpetrators use deceit and concealment as part of their *modus operandi*. In most cases, crimes occur while the vessel is on route, taking advantage of growing maritime traffic and avoiding detection, as well as during nighttime when visibility is low, seeing that detection of oil discharges relies on visual inspection.³⁵ Moreover, damage at sea is not always easily detected.³⁶ Even in situations of accidental pollution, ships often fail to report for fear of legal and financial repercussions.

Establishing causation can also be extremely difficult and is dependent on States cooperating by sharing information and intelligence, in addition to collaborating at operational level together with international law enforcement agencies. Also relevant in this regard is the need to ensure a certain level of harmonization with respect to the standard of evidence admissible under different national jurisdictions.³⁷

In 2018, Interpol headed an international operation involving 276 law enforcement and environmental agencies across 58 States and a global network of 122 national coordinators. This operation lasted one month and carried out 5,200 inspections that resulted in approximately 185 investigations and detected more than 500 offences, including illegal discharges of oil and garbage from vessels, shipbreaking, breaches of ship emissions regulations and pollution in rivers and land-based runoff to the sea.³⁸

The following year, in 2019, Interpol led an operation encompassing sixty-one States and regional law enforcement partners, which identified thousands of illicit activities behind severe marine pollution. The preliminary results of this concerted operation that lasted one month, gathering more than 200 enforcement authorities worldwide across all continents, revealed more than 3,000 offences, detected during

³⁴ 'INTERPOL report alerts to Sharp rise in plastic waste crime': www.interpol.int/News-and-Events/News/2020/INTERPOL-report-alerts-to-sharp-rise-in-plastic-waste-crime (last accessed August 2021).

³⁵ Vollaard (n 5), 169.

³⁶ *Ibid.*, 171.

³⁷ *Ibid.*

³⁸ 'Marine pollution crime: first global multi-agency operation, 13 November 2018': www.interpol.int/News-and-Events/News/2018/Marine-pollution-crime-first-global-multi-agency-operation (last accessed August 2021).

17,000 inspections. These offences were committed primarily to avoid the cost of compliance with environmental legislation.³⁹

These examples highlight the vital importance of international cooperation between States and international law enforcement entities, such as Interpol⁴⁰ and Europol,⁴¹ for gathering and sharing data and evidence, establishing causation and acting in a coordinated, timely and effective manner. However, the prevailing interpretation of applicable international law is that criminal acts and conduct that constitute maritime environmental crimes are subject to the exclusive jurisdiction of national law, even though only a few States have legislation on maritime environmental crimes and even fewer exercise jurisdiction. The United States is one of those States that has efficiently exercised prescriptive and enforcement jurisdiction. In addition to accepting and rewarding collaboration by whistleblowers,⁴² the United States established extritorial jurisdiction through the Oil Pollution Act of 1990, in addition to the well-known Aliens Tort Claims Act of 1789.⁴³

Lastly, regarding international cooperation, it should be noted that there is no international body to monitor maritime environmental crimes or measure performance and progress, and identify ways to enhance cooperation between States. Existing organizations such as the International Maritime Organization or the United Nations Office on Drugs and Crime do not have the competence to tackle these crimes, despite the natural contiguity of their mandates in terms of protection and preservation of the marine environment⁴⁴ and combating transnational

³⁹ 'Marine pollution: thousands of serious offences exposed in global operation, 16 December 2019': www.interpol.int/News-and-Events/News/2019/Marine-pollution-thousands-of-serious-offences-exposed-in-global-operation (last accessed August 2021).

⁴⁰ See nn 38 and 39.

⁴¹ Europol provides a regional law enforcement response to several cross-border aspects of transnational environmental crime. Europol–Environmental Crime: www.europol.europa.eu/crime-areas-and-trends/crime-areas/environmental-crime (last accessed August 2021).

⁴² The Act to Prevent Pollution from Ships of 1980 allows a Court to issue a monetary award for up to one half of any imposed criminal fine to whistleblowers. See Whistleblower News Network, 'Whistleblower Detection Credited in 76% of Last 100 APPS Cases': <https://whistleblowersblog.org/2018/05/articles/whistleblower-news/environmental-whistleblowers/whistleblower-detection-credited-in-76-of-last-100-apps-cases/> (last accessed August 2021).

⁴³ An action under the Aliens Tort Claims Act can be brought for torts (civil wrongs) against transnational corporations for violations of international human rights committed abroad, thus creating a tool to increase corporate accountability, even though it is only applicable to internationally agreed and recognized rights. This Act has become an opportunity for transnational legal action and the possibility for adjudication when other national legal systems have failed.

⁴⁴ Convention on the International Maritime Organization, Geneva, 6 March 1948, in force 17 March 1958, 289 UNTS 3. An example of expansion of the action of the IMO is the amendment of the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation and Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf, 1678 UNTS 201. See R. Balkin, 'The International Maritime Organization and Maritime Security' (2006) 30 *Tulane Maritime Law Journal*, 22–31.

organized crime or providing maritime law enforcement capacity building.⁴⁵ Consequently, important governance gaps exist between different organizations and a lack of aggregated information regarding the full impact of maritime environmental crimes throughout the world.

In short, lack of cooperation results in the ineffectiveness of international law to prevent and effectively combat maritime environmental crimes.

15.5 IS THERE ROOM FOR MARITIME ENVIRONMENTAL CRIMES WITHIN INTERNATIONAL LAW?

Despite the shortcomings of international law for not including specific rules on maritime environmental crimes, this does not mean no room is available for maritime environmental crimes in international law. It is necessary to consider the unity of international law and the need to achieve the functional systemic integration of different legal regimes. No international legal instrument is a self-contained regime and is certainly not impermeable to other legal regimes. Systemic integration can help fill the gaps and maximize efficiency of fragmented legal rules.

In order to deliver an improved collective and effective legal response to address maritime environmental crimes, it is necessary to go beyond the law of the sea and into other sources of international law. This is because maritime environmental crimes straddle different fields of international law. *Prima facie*, these include the law of the sea, international environmental law and international criminal law but also human rights law, as environmental rights are also human rights.⁴⁶ Indeed, international law has gradually widened the range and reinforced protection of environmental rights. This is the case for the 1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention),⁴⁷ which has influenced national and regional legislation on recognition of procedural environmental rights, as is the case for the European Union and its Member States.⁴⁸

⁴⁵ United Nations Convention Against Transnational Organized Crime, 2225 UNTS 209. The UN Office on Drugs and Crime (UNODC) Global Maritime Crime Programme aims to provide maritime law enforcement capacity building, including techniques for conducting a vessel 'visit, board, search and seizure' process. In this regard, maritime crimes include piracy, fisheries crime, trafficking in persons and smuggling of migrants.

⁴⁶ The European Court of Human Rights, Case of *Mangouras v. Spain*, Judgment 28 September 2010.

⁴⁷ Aarhus, 25 June 1998, in force 30 October 2001, 2161 UNTS 447.

⁴⁸ Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies; Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public

The international legal framework on protection and preservation of the marine environment consists of several international legal instruments, in addition to regional frameworks and non-binding guidelines and recommendations from different international and regional organizations. The most relevant instruments addressing ship-source pollution are UNCLOS and the 1973 International Convention for the Prevention of Pollution from Ships, as modified by the 1978 Protocol (MARPOL 73/78).⁴⁹ These instruments were drafted in the wake of the 1967 ‘Torrey Canyon’ and the 1978 ‘Amoco Cadiz’ disasters involving oil tankers, which revealed the urgent need for improvement and enforcement of preventive measures in light of a rapidly expanding shipping sector and new developments in the field of marine pollution control. This called for adoption of more stringent requirements for ships entering or nearing States’ waters in order to eliminate substandard ships.⁵⁰

Although international legal instruments are not directly applicable to maritime environmental crimes, they bear relevance. In addition, when integrated with other sources of international law they can substantially improve the international response to maritime environmental crimes. Moreover, international liability rules in relation to environmental damage are still developing, notwithstanding general principles of international law that impose responsibility and liability for illegal acts, or the adverse consequences of lawful activities, many of which are included in the 2001 International Law Commission Draft Articles on State Responsibility, and some are considered to reflect customary international law.⁵¹ In this regard, a new paradigm will enable establishment of communication veins where none exist at the moment as a result of the gaps caused by fragmentation of international law.

Perhaps the strongest example of the ability to establish communication veins can be found in the Rome Statute of the International Criminal Court (ICC), by clearly establishing a link between international criminal law and the environment. In the definition of war crime the Statute considers ‘intentionally launching an attack in the knowledge that such attack will cause ... widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to

participation and access to justice Council Directives 85/337/EEC and 96/61/EC; Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC; Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment; 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: <https://ec.europa.eu/environment/aarhus/legislation.htm> (last accessed August 2021).

⁴⁹ The International Convention for the Prevention of Pollution from Ships of 1973 (n 19).

⁵⁰ UNCLOS III, Memorandum by the President of the Conference on Document A/CONF.62/WP.10 (UN Doc. A/CONF.62/WP.10/ADD.1), (1977), OR VIII, 65. Also see: Third Committee UNCLOS III, 31st Meeting (UN Doc. A/CONF.62/C.3/SR.31) (1976), OR VI, 100; Third Committee UNCLOS III, 32nd Meeting (UN Doc. A/CONF.62/C.3/SR.32) (1976), OR VI, 106.

⁵¹ ITLOS, *Responsibilities and obligations of States* (n 19), para. 169.

the concrete and direct overall military advantage anticipated'.⁵² In this regard the proposal to introduce 'ecocide'⁵³ as a new international crime under the Rome Statute,⁵⁴ in addition to a new preambular paragraph and amending Article 5, can undoubtedly contribute towards a change of paradigm.⁵⁵

In order to achieve the ultimate goals of recognition of maritime environmental crimes within international law, no distinction should be drawn as to whether these crimes are committed in wartime or in peacetime. Instead, there should be integral protection of the environment under international criminal law.⁵⁶ Nonetheless, the underlying rationale of the example provided by the Rome Statute could be expanded, *mutatis mutandis*, and possible communication veins replicated between different legal regimes that are not sufficient, on their own, to support the concept of maritime environmental crimes within international law.

However, since international law is essentially state-centric, one could question how environmental rights can be interpreted and protected under the existing rules, when there is no international legal instrument establishing international criminal responsibility of natural or legal persons for maritime environmental crimes. This question exposes the deep disconnect between international law and protection of the marine environment from criminal acts, particularly as most maritime environmental issues are global in nature and not the specific problems of one or a group of persons.

Also challenging under international law is the need to demonstrate that pollution has had a harmful effect on the rights of persons and not simply a general deterioration of the environment.⁵⁷ With respect to individual criminal responsibility, it should be noted that Article 25 of the Rome Statute determines that the ICC wields jurisdiction over natural persons. So, should 'ecocide' be recognized as a new international crime within the jurisdiction of the ICC, the Court would have jurisdiction over a person who commits ecocide and, consequently, who would be individually responsible and liable for punishment under the Rome Statute, without

⁵² Art. 8(2) lit. b) (iv) of the Rome Statute of the International Criminal Court, done in Rome on 17 July 1998 and entered into force on 1 July 2002, published in 2187 UNTS 90. Also see Art. 20 lit. g) of the International Law Commission Draft Code of Crimes against the Peace and Security of Mankind.

⁵³ STOP Ecocide Foundation (n 8).

⁵⁴ Art. 8 ter (1) defines 'ecocide' as unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.

⁵⁵ On different proposals for a new crime against the environment and an analysis of 'ecocide', see A. Bustami and M.-C. Hecken, 'Perspectives for a New International Crime against the Environment: International Criminal Responsibility for Environmental Degradation under the Rome Statute' 11(1) *Goettingen Journal of International Law* (2021), 170–185.

⁵⁶ *Ibid.*, 163–165.

⁵⁷ The European Court of Human Rights, Case of *Kyrtatos v. Greece*, Judgment 22 August 2003, paras. 52–53.

prejudice to the responsibility of States under international law. However, the Rome Statute does mention corporate criminal responsibility.

Regarding the need to show harmful effect, it should be noted that with recognition of maritime environmental crimes comes a new perspective, one that envisages protection of the environment for its own sake and ultimately that of humanity.⁵⁸ As mentioned in the introductory remarks, there is a need for a new global paradigm that is able to deliver an improved collective and effective legal response to address maritime environmental crimes, departing from what the law currently is and contributing towards progressive development of international law. In this regard, the inter-normative dialogue between international and national law could make a significant contribution. Indeed, although international environmental criminal law is an emerging field of international environmental law, there are examples of state practice involving prescription of maritime environmental crimes.

Similar to the development and progressive codification of international law, national legislative developments are also connected with environmental disasters that too often demonstrate the inadequacy of protection regimes to deter and prevent environmental crimes but also to punish those responsible and provide adequate remedies. This was the case of the US Oil Pollution Act of 1990, adopted following the 1989 *Exxon Valdez* oil spill disaster off the coast of Alaska, and the US Act to Prevent Pollution from Ships of 1980 in order to implement MARPOL 73/78.

National laws addressing environmental crimes vary considerably. Some are very lenient and others very stringent. Some impose strict liability, while others do not. Very often States adopt a complex system where environmental criminal law coexists with civil liability and administrative regulation, as is applicable to natural persons and/or to legal persons, namely corporations. In this regard the 1999 *Erika* and 2002 *Prestige* disasters involving oil tankers, respectively off the coasts of France and Spain, are a clear reminder of how lack of inter-normative dialogue can lead to conflict between different sources of law and pose serious liability and jurisdictional challenges. It also demonstrates the many obstacles facing environmental criminal law when these incidents take place at sea and the difficulty in applying international and national law.⁵⁹

Therefore, development of the new paradigm should also focus on the inter-normativity and reciprocal influence between international, regional and national law, taking into consideration the growing expansion of both international and regional law with respect to the marine environment. For example, by establishing extraterritorial jurisdiction with respect to maritime environmental crimes States are able to extend the applicability of the law and the use of penalties beyond national

⁵⁸ Butami and Hecken (n 55), 166–168.

⁵⁹ V. Frank, 'Consequences of the Prestige Sinking for European and International Law' (2005) 20(1) *The International Journal of Marine and Coastal Law*, 1–64.

borders. This is the case of the US Oil Pollution Act of 1990, which provides that its criminal provisions may apply to foreign nationals beyond its territory, giving the USA a broader range for action than provided under international law. These and other similar national legislative developments regarding the exercise of prescriptive and enforcement jurisdiction at sea can significantly influence international law.

15.6 CONCLUSIONS AND OUTLOOK

The ocean is getting busier. The increasing number of ships at sea and the growing facilitation of movement of persons and goods across borders constitute a serious challenge to individual flag States in regulating and monitoring all ships flying their flag. This is also a challenge for coastal and port States, because of the limitations imposed by spatial and functional jurisdiction at sea.

Moreover, the shipping industry is entering a new era, with the introduction of unmanned ships. Likewise, there are new usages and activities in the ocean, in addition to global threats, such as climate change, sea level rise and ocean acidification. These pressures are having a significant impact on the marine environment and humankind, but none more so than maritime environmental crimes.

The body of rules and principles applicable to protection and preservation of the marine environment, drafted in the 1970s and early 1980s during the III United Nations Conference on the Law of the Sea and other codification efforts, does not meet current expectations and the environmental rights discourse. Simply put, existing international legal rules do not echo the overall concern for protection and preservation of the marine environment, and neither do they meet the expectations of those looking for implementation and enforcement of more stringent and effective rules. There is no international legally binding rule, body of rules or principle that criminalizes or establishes an obligation for States to criminalize transnational organized maritime environmental crime.

Consequently, recognition of and adherence to the notion of transnational organized maritime environmental crime would have the effect that criminalization would no longer be dependent solely on domestic law, even though it would be difficult to overcome the limitations resulting from the existing legal framework applicable to prescriptive, and especially enforcement, jurisdiction at sea. In this regard, proposals for a new international crime such as 'ecocide' could potentially lead the way for further development of international law and of the legal tools necessary to ensure a collective and effective legal response to maritime environmental crimes.

In the meantime, under the current international regime, States have very limited powers of enforcement when a flag State fails to fulfil its obligations regarding protection and preservation of the marine environment, despite the fact that, arguably, flag States that fail to protect and preserve the marine environment under domestic law are subject to the principle of state responsibility. In these cases, the

basis for responsibility lies in the obligations inherent to the concept of sovereignty as both control and responsibility, taking into account the context of international accountability.⁶⁰ States remain responsible for lack of due diligence and ultimately for allowing the persistence of permissive circumstances for acts of pollution to occur and remain unpunished. A difficult legal challenge arises when a coastal State or a flag State with jurisdiction is unable to enforce its own jurisdiction.

Therefore, States must lawfully and legally assert their maritime jurisdiction, both spatial and functional. This should also include extraterritorial jurisdiction.

Following the exercise of prescriptive jurisdiction, States must also establish the situations and conditions for the exercise of enforcement jurisdiction, or maritime law enforcement, in accordance with international law and in particular the law of the sea, including with respect to boarding, detention, arrest, search and seizure of a ship. States must further provide internal remedies and access to justice.

Lastly, international cooperation is essential to ensure effective protection and preservation of the marine environment, as well as to address circumstances favourable to organized crime, such as the presence of corruption, bribery and obstruction of justice. Law enforcement cooperation and the sharing of investigative tools and evidence and intelligence are particularly important, including for the purpose of enforcement and prosecution.

⁶⁰ International Commission on Intervention and State Sovereignty (ICISS), *The Responsibility to Protect: Report of the International Commission in Intervention and State Sovereignty* (International Development Research Centre, 2011), 12.