4

The Impact of Coastal State's Rights on the Navigational Freedoms

After the establishment of the exclusive economic zone (EEZ) regime in the United Nations Convention on the Law of the Sea (UNCLOS),[1] the struggle between the tendency of the coastal State to extend its rights and jurisdiction and the desire of all States to maintain high seas freedoms has continued. In the course of this process, navigational freedoms have been affected to varying degrees by broadened coastal State rights and jurisdiction. In particular, foreign vessels and aircraft are obliged to have due regard for coastal State rights and duties and must observe the laws and regulations established by the coastal State in conformity with UNCLOS and other applicable rules of international law.[2] There is considerable potential for conflict between the rights and duties of the coastal State and those of other States.[3] Since most of the seaborne routes in widespread use for navigation and overflight are within the limit of the EEZ, the manner in which the navigational freedoms are exercised is of vital importance.[4]

This chapter examines how the exercise of a coastal State's sovereign rights and specific jurisdiction may affect foreign navigation and overflight and other related internationally lawful uses of the sea in the EEZ, both prescriptive and enforcement jurisdiction, and explores the safeguard measures established by UNCLOS to protect these freedoms. The limitations of the navigational freedoms emplaced by the coastal State can only be justified if they are made in accordance with the general principles of the attribution and exercise of rights and jurisdiction in the EEZ. In other words, a coastal State's claims must be made within the limits of its

[1] United Nations Convention on the Law of the Sea (10 December 1982, in force 16 November 1994) 1833 UNTS 3 (UNCLOS).
[2] UNCLOS Article 58(3).
[3] Robin Churchill, Vaughan Lowe and Amy Sander, *The Law of the Sea* (4th ed., Manchester University Press 2022) 287–288.
[4] Barbara Kwiatkowska, *The 200 Mile Exclusive Economic Zone in the New Law of the Sea* (Martinus Nijhoff 1989) 198.

sovereign rights or specific jurisdiction and must be exercised in good faith and by giving due regard to other States' navigational freedoms.

This chapter is divided into five main sections. Section 4.1 reviews the scope of the preserved navigational freedoms of all States in the EEZ, including other related internationally lawful uses of the sea, such as those associated with the operation of ships and aircraft. Their non-absolute character and the duty of having due regard to the coastal State's rights and duties and obeying applicable domestic laws are highlighted. Section 4.2 examines how a coastal State's sovereign rights over natural resources would affect navigational freedoms. The coastal State has been given broad authority to exercise its sovereign rights, including adopting navigational measures and regulating activities ancillary to fishing. Section 4.3 addresses the impacts caused by the coastal State's jurisdiction to preserve and protect the marine environment. The coastal State's jurisdiction is limited to implementing applicable international rules and standards that reflect the predominance of navigational interests over coastal interests. Section 4.4 focuses on the impact of coastal jurisdiction and rights with regard to artificial islands, installations and structures. Although the use of such infrastructure and the surrounding safety zones may restrict navigational freedoms, the coastal State is obliged to act with due diligence and not to unreasonably interfere with international navigation. Section 4.5 discusses the dispute settlement mechanisms that could be used to resolve potential disputes between the coastal State and other States. Of particular interest are the limitations and optional exceptions to the applicability of the compulsory procedures that were included to further ensure a balance of rights and freedoms in the EEZ.

4.1 The Scope of the Navigational Freedoms

Article 58 of UNCLOS guarantees the navigational freedom for all States in the EEZ.[5] Although it was the intention of some maritime powers during the negotiation that 'the high-seas freedoms exercised in the zone are qualitatively and quantitatively the same as the traditional high-seas freedoms recognised by international law', they are nevertheless restricted by several provisions of UNCLOS and other rules of

[5] Delimitation of the Maritime Boundary in the Atlantic Ocean (Ghana/Côte d'Ivoire), Judgment of 23 September 2017, ITLOS Reports 2017, p. 4, para 426.

international law.[6] Only the freedoms that are 'essentially concerned with international communications', in particular the freedom of navigation and overflight and other internationally lawful uses related to these freedoms, remain open to all States, but they are subject to important limitations to accommodate the economic interests of the coastal State.[7]

When discussing the scope of navigational freedoms, the first issue is to clarify that they are not limited to any particular category of ships and aircraft. All ships and aircraft registered with all States, including those of military nature and used for other public service, as well as those registered in landlocked countries, have been granted the freedom of navigation and overflight in the EEZ.[8] This refers to the unrestricted transit of a ship or aircraft through the EEZ of a coastal State en route between two destinations.[9] UNCLOS used 'ship' and 'vessel' interchangeably, and offered no definition of either term. According to conventions developed under the auspices of the International Maritime Organisation (IMO), ship 'means a vessel of any type whatsoever operating in the aquatic environment and includes submersibles, floating craft, floating platforms, Floating Storage Units (FSUs) and Floating Production Storage and Offloading Units (FPSOs)', but exempts or modifies the application of the floating platforms when they are on location engaged in seabed activities.[10]

The second issue is to determine the 'other internationally lawful uses of the sea related to these freedoms'.[11] Article 58 gives an example, 'such as those associated with the operation of ships, [and] aircraft ... and compatible with the other provisions of this Convention'. This example remains vague as to whether such use should be essential to the operation of a ship or aircraft, such as a hydrographic survey that collects data to support navigation, or distantly support their operations, such as the exchange of ballast waters and bunkering, which are occasional activities

[6] Bernard H. Oxman, 'The Third United Nation's Conference on the Law of the Sea: The 1977 New York Session' (1978) 72 Am J Int'l L 57, 68–69, 72–73; Kwiatkowska (1989) 199–200.

[7] Churchill, Lowe and Sander (2022) 276.

[8] For military navigation and overflight, see Chapter 6 in this volume.

[9] Churchill, Lowe and Sander (2022) 276.

[10] Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (17 February 1978, in force 2 October 1983) 1340 UNTS 61, Article 2(4) (MARPOL); International Convention for the Control and Management of Ship's Ballast Water and Sediments (13 February 2004, in force 8 September 2017) 3282 UNTS I-55544, Article 1(12) (BWM Convention).

[11] UNCLOS Article 58(1).

but not essential. State practice and judicial decisions seem to support a broader interpretation. The exchange of ballast water in the EEZ is discouraged but generally tolerated, especially in areas beyond 50 nautical miles (NM) from the nearest land.[12] The International Tribunal for the Law of the Sea (ITLOS) in both the *Norstar* case and *M/T San Padre Pio* case stated that the argument that bunkering activities in the EEZ (not to fishing vessels as confirmed in the *Virginia G* case) came within the high seas freedom of navigation is plausible.[13] Furthermore, according to the arbitral tribunal in *Arctic Sunrise*, protest at sea by ships is also included in the scope of internationally lawful uses of the sea, as it is 'necessarily exercised in conjunction with freedom of navigation'.[14] There are also ongoing debates and conflicting State practice on whether military manoeuvres and espionage fall within the scope of 'other internationally lawful uses'.[15]

Article 58 guarantees the unhampered navigation by foreign ships and aircraft through the EEZ of the coastal States, while the regulation of navigation and overflight are developed under other international instruments, including the rules and standards adopted by competent international organisations and diplomatic conferences. IMO is the global standard-setting authority for the safety, security and environmental performance of international shipping, and many of its rules and regulations have been universally adopted and implemented.[16] Rules for

[12] BWM Convention Annex, Regulation B-4.

[13] M/V 'Norstar' Case (Panama v. Italy), Judgment of 10 April 2019, ITLOS Reports 2018–2019, p. 10, paras 219–220; M/T 'San Padre Pio' Case (Switzerland v. Nigeria), Provisional Measures, Order of 6 July 2019, ITLOS Reports 2018–2019, p. 375, paras 107–108.

[14] In the Matter of the Arctic Sunrise Arbitration before an Arbitral Tribunal Constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea between the Kingdom of the Netherlands and the Russian Federation, Award on the Merits, 14 August 2015, PCA Case No. 2014-02, paras 227, 328 (Arctic Sunrise Arbitration); Joanna Mossop, 'Protests against Oil Exploration at Sea: Lessons from the Arctic Sunrise Arbitration' (2016) 31 Int'l J Marine & Coastal L 60, 66-67; Churchill, Lowe and Sander (2022) 277.

[15] Churchill, Lowe and Sander (2022) 280–283. For further discussion, see Chapter 6 in this volume.

[16] International Maritime Organization (IMO) LEG/MISC.8, 30 January 2014, Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization, 7; United Nations Division for Ocean Affairs and the Law of the Sea (UN DOALOS), '"Competent or Relevant International Organizations" under the United Nations Convention on the Law of the Sea' (1996) 31 Law of the Sea Bulletin 79; Zhen Sun, 'UNCLOS Part XII and IMO Instruments on Regulating Environmental Impacts of Shipping: Towards an Effective Regulatory Synergy' (2021) 35 Ocean YB 473, 482–483.

overflight are mainly contained in the Convention on International Civil Aviation (Chicago Convention) developed under the auspices of the International Civil Aviation Organization.[17] Under the Chicago Convention, the rules of the air apply to the high seas and to the EEZ through cross-reference under UNCLOS Article 58(2).[18]

The freedoms of navigation and overflight in the EEZ, like all other high seas freedoms, are subject to a number of limitations. First, the exercise of freedoms of navigation and overflight in the EEZ must be for peaceful purposes.[19] Second, States exercising such freedoms are required to have 'due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State' in accordance with UNCLOS and other compatible rules of international law.[20] Moreover, it can be argued that the general obligation to have 'due regard' applies to the interests of other States in their exercise of the recognised freedoms in the EEZ.[21] The essential element of the due regard obligation is to define the non-absolute character of the right it attached.[22] The extent of the 'regard' required in each case will depend upon the nature of the rights held by the other State, their importance, the extent of the anticipated impairment, the nature and importance of the activities contemplated by the operations of the State, and the availability of alternative approaches.[23]

UNCLOS has, nevertheless, laid down detailed provisions to protect the navigational freedoms as applicable in the EEZ. First, a flag State enjoys exclusive jurisdiction over ships flying its flag navigating in a foreign EEZ except as otherwise authorised.[24] Second, warships and ships used only in government non-commercial service have 'complete

[17] Convention on International Civil Aviation (7 December 1944, in force 4 April 1947) 15 UNTS 295.
[18] Ibid Article 12; Kay Hailbronner, 'Freedom of the Air and the Convention on the Law of the Sea' (1983) 77 Am J Int'l L 503, 490–520; Churchill, Lowe and Sander (2022) 284.
[19] UNCLOS Articles 88, 301.
[20] UNCLOS Article 58(3).
[21] UNCLOS Article 87(2); Churchill, Lowe and Sander (2022) 288.
[22] See discussion in Chapter 3 in this volume.
[23] In the Matter of the Chagos Marine Protected Area Arbitration Before an Arbitral Tribunal Constituted under Annex VII to the United Nations Convention on the Law of the Sea between the Republic of Mauritius and the United Kingdom of Great Britain and Northern Ireland, Award, 18 March 2015, PCA Case No. 2011-03, para 519 (Chagos MPA Arbitration).
[24] UNCLOS Articles 58(2), 92(1), 94.

immunity from the jurisdiction of any State other than the flag State' and are specifically exempted from a coastal State's jurisdiction over environmental protection.[25] Moreover, the coastal State is explicitly obliged to 'have due regard to the rights and duties of other States' and to 'act in a manner compatible with provisions of [UNCLOS]',[26] whereby it cannot exercise its rights and jurisdiction in an absolute manner and must refrain from unreasonably interfering with foreign navigation and overflight. Furthermore, it is expressly stated that any disputes concerning an allegation where a coastal State has acted in contravention of the provisions in regard to the navigational freedoms will be subjected to a compulsory dispute procedure.[27]

The following sections examine how different measures taken by the coastal State in exercising its rights and jurisdiction might affect the exercise of the preserved navigational freedoms in the EEZ.

4.2 Sovereign Rights over Natural Resources and Other Economic Activities

The phrase 'sovereign rights', first used in the context of the continental shelf regime, suggests that the coastal State's rights are exclusive in the sense that although the coastal State does not have sovereignty, it has 'all rights necessary for and connected with the exploration and exploitation of the natural resources', including 'jurisdiction in connexion with the prevention and punishment of violations of the law'.[28] The notion of 'sovereign rights' must be seen as constituting an extract of the broader concept of sovereignty – the mode of exercise is no different from that exercised by the coastal State within its territorial sea on the development of the natural resources and other economic activities.[29]

[25] UNCLOS Articles 58(2), 95–96, 236.
[26] UNCLOS Article 56(2).
[27] UNCLOS Article 297(1)(a).
[28] 'Report of the International Law Commission to the United Nations General Assembly, A/3159, Articles Concerning the Law of the Sea with Commentaries' (1956) 2 YB ILC 297, Article 68 Commentary 2 (ILC Draft Articles); M/V 'Virginia G' Case (Panama/Guinea-Bissau), Judgment of 14 April 2014, ITLOS Reports 2014, p. 4, para 211.
[29] Case Concerning the Continental Shelf (Tunisia v. Libyan Arab Jamahiriya), Judgment of 24 February 1982, ICJ Reports 1982, p. 18, Dissenting Opinion of Judge Oda, para 124; Alexander Proelss, 'Article 56', in Alexander Proelss (ed), *United Nations Convention on the Law of the Sea: A Commentary* (Hart 2017) 424–425.

4.2.1 *Living Resources*[30]

The EEZ can be regarded as the direct result of developments in the law of the sea concerning coastal State fisheries jurisdiction in adjacent sea areas.[31] As of 2024, among the 151 listed coastal States, more than 110 States have claimed the full distance of a 200 NM EEZ, subject to delimitation with States with opposite or adjacent coasts, together with another 4 States that have only claimed fisheries zones of various breadths.[32] These claimed EEZ regimes encompass approximately 90 per cent of the world's marine fisheries, which remain a major source of food and a key provider of employment and economic benefits.[33]

'Living resources' in the EEZ refers to non-sedentary species found in the water column superjacent to the seabed, including all fisheries, marine mammals, highly migratory species, shared and straddling stocks, anadromous and catadromous species and seabirds.[34] Sedentary species have been explicitly exempted from the EEZ regime under Article 68 but are subject to the coastal State's sovereign rights and jurisdiction under the continental shelf regime.[35] The different legal basis has certain implications for the scope of rights and obligations possessed by the coastal State.[36] First, Article 68 was included for historical reasons, as sedentary species were protected under the continental shelf regime before the establishment of the EEZ and their protection extends to the extended continental shelf.[37] Second, the exemption was meant to ensure

[30] A preliminary draft of this section was published under the title 'Conservation and Utilization of the Living Resources in the Exclusive Economic Zone – How Far Can We Go?' by Berkeley Law Publications in July 2013, www.law.berkeley.edu/files/Sun-final.pdf.

[31] Shigeru Oda, *International Control of Sea Resources* (2nd ed., Martinus Nijhoff 1989) xvii–xix; Churchill, Lowe and Sander (2022) 255–256.

[32] See examination in Chapter 3, Table 3.1.

[33] Food and Agriculture Organization of the United Nations (FAO), 1995 Code of Conduct for Responsible Fisheries (FAO 1995) Preface, paras 1–2.

[34] UNCLOS Articles 61–68, 77(4); Philippe Sands and Jacqueline Peel, with Adriana Fabra and Ruth MacKenzie, *Principles of International Environmental Law* (4th ed., Cambridge University Press 2018) 506.

[35] UNCLOS Articles 68, 77(4): 'sedentary species' refers to 'organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil'.

[36] James Harrison, 'Article 68', in Proelss (2017) 540.

[37] UNCLOS Article 76(4)–(8); Myron H. Nordquist, Satya N. Nandan and Shabtai Rosenne (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. II (Martinus Nijhoff 1993) 687–688, 897–898; Convention on the Continental Shelf (29 April 1958, in force 10 June 1964) 499 UNTS 311, Article 2(4).

that the coastal State is not subject to the obligation of giving excess of the surplus to other States where it does not have the capacity to harvest the entire allowable catch.[38] Third, the coastal State has no express obligation to conserve and manage sedentary species of the continental shelf in the same way as non-sedentary living resources in the EEZ.[39] However, the coastal State may do so in the exercise of its sovereign rights over the continental shelf and to fulfil its obligations under other international law such as the 1992 Convention on Biological Diversity.[40]

Coastal State sovereign rights relate not only to the management of these species and other natural resources but also to their conservation for economic utilisation.[41] These rights, together with certain duties imposed on the coastal State, are further elaborated in Articles 61–73. The coastal State's sovereign rights encompass two main aspects as listed in Articles 61 and 62 (respectively): conservation and utilisation, with the objective of the conservation measures being to reach the goal of optimum utilisation.[42] In order to do this, the coastal State must take into account the best available scientific evidence and cooperate with competent international organisations as appropriate, whether sub-regional, regional or global.[43] Additionally, States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.[44] This reflects a general principle of international law that States have a legal obligation to promote the conservation and sustainable use of natural resources within the limits of their jurisdiction, including in the EEZ.[45]

[38] UNCLOS Article 77(2).
[39] Churchill, Lowe and Sander (2022) 531–532.
[40] Harrison 'Article 68' (2017) 542–543; Convention on Biological Diversity (5 June 1992, in force 29 December 1993) 1760 UNTS 79, Article 10.
[41] Thomas Dux, *Specially Protected Marine Areas in the Exclusive Economic Zone: The Regime for the Protection of Specific Areas of the EEZ for Environmental Reasons under International Law* (LIT Berlin 2011) 90.
[42] Nordquist, Nandan and Rosenne (1993) 608; M/V 'Virginia G' Case para 212.
[43] UNCLOS Article 61(2). Request for An Advisory Opinion submitted by the Commission of Small Island States on Climate Change and Internaitonal Law, Advisory Opinion of 21 May 2024, ITLOS List of cases: No. 31, para 414 (Climate Change Advisory Opinion).
[44] UNCLOS Article 193; Case Concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment of 20 April 2010, ICJ Reports 2010, p. 14, para 175; Alan Boyle and Catherine Redgwell, *Birnie, Boyle and Redgwell's International Law and the Environment* (4th ed., Oxford University Press 2021) 137.
[45] Rio Declaration on Environment and Development (Rio de Janeiro, June 1992), UN Doc A/CONF.151/26 (Vol. I) (12 August 1992), Principles 4–5, 8; Sands and Peel (2018) 222–223.

It is also acknowledged that, in exercising its sovereign rights over the living resources, the coastal State undertakes a mutual obligation of having 'due regard' to the rights and duties of other States in the EEZ.[46] This general obligation is inserted to balance the rights and interests in the EEZ between the coastal State and other States. It requires that the coastal State must be aware of other States' interests and give them sufficient consideration when planning or conducting any activities that may affect the exercise of the freedom of navigation and overflight and other related freedoms, and refrain from activities that unreasonably impede the exercise of these freedoms.[47] The effects imposed on navigational freedoms by coastal conservation and management measures are examined in more detail below.

4.2.1.1 Protection of Marine Species, Habitats and Ecosystem

Coastal States have, based on their sovereign rights, the authority to determine the extent and the limits of conservation and utilisation measures of the living resources in the EEZ.[48] However, there is a correlative obligation for each coastal State to 'ensure through proper conservation and management measures that the maintenance of the living resources in the [EEZ] is not endangered by over-exploitation'.[49] These measures should be designed to 'maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the economic needs of coastal fishing communities'.[50] It is both a right and an obligation for the coastal State to sustainably manage the natural resources in the EEZ. As subsequent development in the environmental law field has demonstrated, the effective conservation of marine species must also take into account the protection of associated or

[46] UNCLOS Article 56(3).
[47] George K. Walker, 'Defining Terms in the 1982 Law of the Sea Convention IV: The Last Round of Definitions Proposed by the International Law Association (American Branch) Law of the Sea Committee' (2005) 36 Cal West Int'l L J 133, 174-177; Moritaka Hayashi, 'Military and Intelligence Gathering Activities in the EEZ: Definition of Key Terms' (2005) 29 Marine Policy 123, 132–133.
[48] William T. Burke, *The New International Law of Fisheries: UNCLOS 1982 and Beyond* (Oxford University Press 1994) 39; Boyle and Redgwell (2021) 732–733.
[49] UNCLOS Article 61(2). Climate Change Advisory Opinion para 414.
[50] UNCLOS Article 61(3).

dependent species, their associated habitats and interlocking ecosystems, and the impacts of climate change and ocean acidification.[51]

In circumstances where shipping and other collateral activities may cause considerable damage to spawning grounds or nurseries, the coastal State arguably has a wide margin of discretion to restrict navigation for the purpose of conservation, subject to the fulfilment of its due regard obligation.[52] These conservation measures may affect foreign vessels navigating through or within the EEZ under two circumstances. First, the coastal State may prescribe navigational measures, primarily through IMO, to regulate the movement of all foreign vessels in order to protect certain marine species or their habitats. Second, the coastal State may prescribe specific regulations towards foreign fishing vessels to protect such exclusive use. In the case where foreign fishing vessels[53] are given access to fish the surplus of the allowable catch through agreements or other arrangement with the coastal State, they must comply with the conservation measures established in that State's coastal laws and regulations.[54]

Vessels may pose various threats to marine lives and habitats, *inter alia*, pollution including greenhouse gas emissions, aquatic nuisance species transferred through ballast water, and physical damages through grounding and collisions.[55] Measures that aim to reduce such impacts primarily relate to the use of ships' routeing systems developed and monitored under the auspices of IMO.[56] If the coastal State has sufficient reason to believe that the density of traffic is hazardous to the safety of navigation and/or protection of the marine environment in or around a specific area, it may submit a proposal to IMO for approval to adopt

[51] UNCLOS Article 194(5); Sands and Peel (2018) 515; Boyle and Redgwell (2021) 750–752. Climate Change Advisory Opinion para 414.

[52] Dux (2011) 38–40.

[53] Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (24 November 1995, in force 24 April 2003) 2221 UNTS 91, Article 1(a): 'Fishing vessel' means any vessel used or intended for use for the purposes of the commercial exploitation of living marine resources, including mother ships and any other vessels directly engaged in such fishing operations.

[54] UNCLOS Articles 62(2) and (4), 73; Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC), Advisory Opinion of 2 April 2015, ITLOS Reports 2015, p. 4, para 102 (Fisheries Advisory Opinion); Churchill, Lowe and Sander (2022) 543; Sands and Peel (2018) 515.

[55] UNCLOS Article 1(1)(4); IMO Res A.982(24), 1 December 2005, Annex: Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (PSSA), para 2.1 (IMO Revised PSSA Guidelines); Climate Change Advisory Opinion para 179.

[56] IMO, 'Ships' Routeing' www.imo.org/en/OurWork/Safety/Pages/ShipsRouteing.aspx.

ships' routeing systems.[57] These systems may be made voluntary or mandatory for 'all ships, certain categories of ships, or ships carrying certain cargoes' in the designated sea areas.[58] The proposed ships' routeing systems must 'reasonably be expected to significantly prevent or reduce the risk of pollution or other damage to the marine environment of the area concerned'.[59] The precise measures will depend upon the particular circumstances it is intended to alleviate, but may include some or all of the following: traffic separation schemes, two-way routes, recommended tracks, areas to be avoided, roundabouts, precautionary areas and deep-water routes.[60] For instance, in a coral reef area where anchoring is hazardous or could result in unacceptable damage to the marine habitat, the coastal State may establish through IMO a clearly defined no-anchoring area where anchoring is prohibited by all ships or certain classes of ships. In addition, it is very common for a coastal States to establish closed areas during spawning seasons to preserve and improve the spawning of domestic species, and it may be worth considering using similar conservation measures for species found in the EEZ to protect marine habitats.[61]

Further, many coastal States are taking various measures to prevent and deter illegal, unreported and unregulated (IUU) fishing in their EEZs, with some regulating the navigation of foreign fishing vessels in their EEZs.[62] IUU fishing undermines the objective of sustainable use of fisheries, which is considered one of the major threats to coastal State efforts to conserve and manage the living resources in the EEZ and is

[57] International Convention for the Safety of Life at Sea, as amended (1 November 1974, in force 25 May 1980) 1184 UNTS 2, Chapter V, Regulation 10, paras 1–2 (SOLAS); IMO LEG/MISC.8 (2014) 34.

[58] IMO MSC/Circ.1060, 6 January 2003, Annex: Guidance Note on the Preparation of Proposals on Ships' Routing Systems and Ship Reporting Systems for Submission to the Sub-Committee on Safety of Navigation, para. 2.1.

[59] Ibid Annex, para 3.5.2.

[60] IMO Res A.572(14), 20 November 1985, General Provisions on Ships' Routeing, para 2.1.

[61] Douglas M. Johnston, *The International Law of Fisheries: A Framework for Policy-Oriented Inquires* (Yale 1965) 61, 65; UNCLOS Article 62(4)(c); IMO MEPC 43/6/2, 31 March 1999, Identification and Protection of Special Areas and Particularly Sensitive Sea Areas, Relationship between the 1982 United Nations Convention on the Law of the Sea and the IMO Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas, Submitted by the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, para 4; Churchill, Lowe and Sander (2022) 291.

[62] William T. Burke, 'Exclusive Fisheries Zones and Freedom of Navigation' (1982) 20(3) San Diego L Rev 595, 606–622; Fisheries Advisory Opinion para 106.

responsible for the depletion of many fish stocks.[63] It has also been identified as one of the main causes of the overfishing that has 'constrained progress in achieving food security for dependent populations and supporting sustainable livelihoods' and has indirectly threatened international peace and security.[64]

Costa Rica, for example, requires foreign fishing vessels without fishing permits transiting its EEZ to 'communicate entry and departure' to local authorities with information on the characteristics of the vessel, proposed course, place of entry and exit, and time required for passage.[65] Similar legislation was adopted by Canada whereby 'no foreign fishing vessel shall enter Canadian fisheries waters for any purpose unless authorized'.[66] In addition to setting specific regulations for foreign fishing vessels, Maldives extended restrictions to all types of foreign vessels by asserting that 'no foreign vessels shall enter the [EEZ] of Maldives except with prior authorization from the Government of Maldives in accordance with the laws of Maldives'.[67] These unilateral domestic laws create obligations for foreign fishing vessels (all vessels, in the case of Maldives) transiting through the EEZ, which effectively places a condition on the freedom of navigation that seems to be contrary to the freedom of navigation preserved in Article 58(1) of UNCLOS.[68]

Ship reporting systems, which are commonly used for monitoring the movement of foreign vessels, must be adopted and implemented through IMO.[69] The coastal State may propose establishing a ship reporting

[63] FAO, 'Illegal, Unreported and Unregulated Fishing' www.fao.org/iuu-fishing/en/; International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (FAO 2001) para 1.

[64] United Nations General Assembly (UNGA) A/63/63, 10 March 2008, Oceans and the Law of the Sea: Report of the Secretary-General, paras 98–99.

[65] Costa Rica, Law No. 6267/1978, Article 7; Decree No. 9996-S of 16 April 1979, at FAO Corporate Document Repository, 'Table C: Coastal State Requirements for Foreign Fishing' www.fao.org/docrep/V9982E/v9982e10.htm.

[66] Canada, Coastal Fisheries Protection Act, RSC 1985, c C-33, Article 3. According to Article 2, 'Canadian fisheries waters' include 'all waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada'; Canada, Oceans Act, SC 1996, c 31 Article 16: 'The fishing zones of Canada consist of areas of the sea adjacent to the coast of Canada that are prescribed in the regulations'.

[67] Maldives, Maritime Zones of Maldives Act No.6/96, Article 14, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MDV_1996_Act.pdf; Fisheries Act of the Maldives, No. 14/2019, Articles 25–26, https://faolex.fao.org/docs/pdf/mdv195984.pdf.

[68] J. Ashley Roach, *Excessive Maritime Claims* (4th ed., Brill 2021) 463–467.

[69] SOLAS Chapter V, Regulation 11, para 1.

system in a specific area to address issues relating to 'the safety and efficiency of navigation and/or to increase the protection of the marine environment', including marine habitats.[70] Under a duly established ship reporting system, a foreign vessel may be required to provide its identity, position, course and other related information to the shore-based authority through the automatic identification system, long-range identification and tracking system or other applicable ship reporting systems.[71] The information required should be restricted to that essential for the proper operation of the system.[72] IMO has approved mandatory ship reporting systems in areas that partially cover an EEZ of a coastal State for navigation safety and environmental protection purposes.[73] The coastal State could arguably, through IMO, require foreign fishing vessels to provide identification information upon entering or leaving certain areas of its EEZ based on its sovereign rights over living resources, provided that it has given due regard to a foreign vessel's right of free navigation.

There are also safeguards to preserve navigational freedoms when the coastal State attempts to adopt protective measures in the EEZ. For example, when delineating ships' routeing systems, the coastal State must ensure that routes follow existing patterns of traffic flow as closely as possible and should allow optimum use of aids to navigation; when proposing a ship reporting system, the coastal State should limit the requested information to that which is essential to achieving the objectives of the system.[74] These navigation regulations, when duly adopted through IMO and implemented by the coastal State, could be used to support the protection of living resources and the marine environment in the EEZ.[75]

It is worth noting that State practice and a number of judicial decisions have regarded the conservation and management of living resources as one of the major components of the comprehensive approach to preserving and protecting the marine environment.[76] ITLOS stated in the

[70] IMO Res MSC.43 (64), 9 December 1994, Guidelines and Criteria for Ship Reporting Systems, para 2.1.
[71] SOLAS Chapter V, Regulation 19.
[72] IMO MSC/Circ.1060 Annex, para 6.2.2.
[73] IMO Res MSC.126(75), 20 May 2002, Mandatory Ship Reporting Systems (in Greenland waters); IMO Res MSC.190(79), 6 December 2004, Adoption of Mandatory Ship Reporting System in the Western European Particularly Sensitive Sea Area.
[74] IMO MSC/Circ.1060 Annex, paras 3.4, 6.2.
[75] Markus Detjen, 'The Western European PSSA: Testing a Unique International Concept to Protect Imperilled Marine Ecosystems' (2006) 30 Marine Policy 442, 453.
[76] Kwiatkowska (1989) 56–57; Sands and Peel (2018) 558–564.

Southern Bluefin Tuna cases that 'the conservation of the living resources of the sea is an element in the protection and preservation of the marine environment'.[77] This was confirmed in the *Fisheries Advisory Opinion* in which ITLOS further stated that

> the flag State is under an obligation to ensure compliance by vessels flying its flag with the relevant conservation measures concerning living resources enacted by the coastal State for its [EEZ] because, as concluded by the Tribunal, they constitute an integral element in the protection and preservation of the marine environment.[78]

This approach was reconfirmed by the arbitral tribunal in the *South China Sea* case, where it found China breached its environmental obligations under Article 192 of UNCLOS because of its failure to prevent its fishing vessels from taking turtles and giant clams.[79] And additionaly by ITLOS in the *Climate Change Advisory Opinion*, where it observed that 'the conservation of living resources and marine life, which falls within the general obligation to protect and preserve the marine environment, requires measures that may vary over time depending on the activities involved and the threats to the marine environment'.[80] Accordingly, the protection of rare and endangered species, as well as vulnerable marine habitats and areas, became the primary basis for the designation of specially protected marine areas in the EEZ under the environmental protection realm, which will be discussed in Section 4.3.2.2.

4.2.1.2 Regulation of Activities Ancillary to Fishing

The categories of coastal regulations listed in Article 62(4) are illustrative rather than exhaustive, as signified by the term '*inter alia*' in the introduction.[81] The list establishes guidelines for the coastal State to adopt fisheries laws and regulations that are designated to avoid over-exploitation of the

[77] Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures, Order of 27 August 1999, ITLOS Reports 1999, p. 280, para 70.
[78] Fisheries Advisory Opinion para 120.
[79] In the Matter of the South China Sea Arbitration before an Arbitral Tribunal Constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea between the Republic of the Philippines and the People's Republic of China, Award, 12 July 2016, PCA Case No 2013-19, para 960.
[80] Climate Change Advisory Opinion paras 169, 409.
[81] Francisco Orrego Vicuña, *The Exclusive Economic Zone: Regime and Legal Nature under International Law* (Cambridge University Press 1989) 66; Nordquist, Nandan and Rosenne (1993) 637; M/V 'Virginia G' Case para 213.

resources and to meet the coastal State's 'environmental, social and economic goals'.[82] But it does not clearly define the scope of fishing activities that are subject to regulation by the coastal State. In the 1977 Portuguese law, 'fishing means the search for, the catch, the harvesting or the utilisations of any living resources' in the EEZ, as well as activities 'preparatory to fishing' or 'adversely affecting to the exercise of fishing'.[83] This broad interpretation is supported by subsequent State practice and judicial decisions, which shows the tendency of the coastal State to regulate a wide array of activities connected with fishing activities.

In January 1985, Canadian authorities refused to grant a licence for fishing in the Gulf of St Lawrence to the French vessel *La Bretagne*, which was equipped with on-board fish-filleting equipment. French authorities challenged this decision on the basis of a bilateral agreement and submitted the dispute to arbitration.[84] The arbitral tribunal considered the phrase 'fishery regulations' in Canadian law as covering all the rules applicable to fishing activities, taking into consideration future developments, and determined that it refers not only to 'those setting technical standards for the physical conditions in which the fishing is carried on but also those requiring the completion of certain formalities prior to the performance of these activities'.[85] Accordingly, coastal States may adopt and enforce laws to regulate all fishing activities to maintain order on fishing grounds as well as to protect and conserve the living resources, albeit subject to UNCLOS (as adopted) and general international law. First, although the list in Article 62(4) is not exhaustive, it does not authorise coastal States to regulate subjects of a different nature other than those described; for example, 'fishing equipment' should not be interpreted to include processing equipment that is beyond the ordinary meaning of this term.[86] Second, the exercise of coastal States' rights subject to the rule of 'reasonableness' requires that the regulations must be proportional to the aim legally pursued and gives reasonable regard to the rights of other States.[87] Furthermore, such rights are also subject to the rule of 'relativity', whereby the prohibition of an activity could only

[82] UNCLOS Article 61(3); Nordquist, Nandan and Rosenne (1993) 635, 637.
[83] Portugal, Act No. 33/77, 28 May 1977, Regarding the Juridical Status of the Portuguese Territorial Sea and the EEZ, Article 4(3), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/PRT_1977_Act.pdf.
[84] La Bretagne Arbitration (Canada v. France), Summary (1990) 82 Int'l L Reports 591–592.
[85] Ibid 618–620 (paras 37–38).
[86] Ibid 630 (para 52).
[87] Ibid 631 (para 54).

be legislated and enforced if the coastal State can prove that the practice of this activity would inevitably lead to an infringement of the law.[88]

ITLOS had its first opportunity to address the scope of Article 62(4) in the *M/V Saiga* case, where Guinea arrested a vessel for supplying oil to three fishing vessels in the Guinean EEZ as a violation of its customs law.[89] During the prompt release phase, ITLOS stated that

> it has already been indicated that laws or regulations on bunkering of fishing vessels may arguably be classified as laws or regulations on activities within the scope of the exercise by the coastal State of its sovereign rights to explore, exploit, conserve and manage the living resources in the [EEZ].[90]

But it did not come to a clear conclusion. At the merits phase, ITLOS avoided making any findings on this question by examining a broader question of the application of customs laws in the Guinean EEZ.[91] When denying Guinea's argument to apply customs laws in the EEZ, ITLOS seems to have applied the same rule of 'reasonableness' and 'relativity': first, it pointed out that recourse to the principle of 'public interest' to apply customs law in the EEZ would entitle a coastal State to prohibit any activities that it considers as affecting its economic interests and would unreasonably curtail the rights of other States; second, there was no evidence showing that Guinea's 'essential interests were in grave and imminent peril' or that the application of the customs laws was the only means to protect those interests.[92]

In 2011, ITLOS received another case regarding a coastal State's ability to regulate the passage of foreign vessels through its EEZ based on its assertion of natural resource protection measures. The Panamanian-flagged fuel oil tanker *M/V Virginia G* was arrested and detained by the maritime authorities of Guinea-Bissau for supplying fuel to four fishing vessels that had initially been authorised to carry out refueling services in Guinea-Bissau's EEZ through a third local party.[93] ITLOS interpreted Article 62(4) as 'for all activities that may be regulated by a

[88] Ibid 637 (para 63).
[89] M/V 'Saiga' Case (Saint Vincent and the Grenadines v. Guinea), Prompt Release, Application Submitted by Saint Vincent and the Grenadines, 11 November 1997 www.itlos.org/en/main/cases/list-of-cases/case-no-1/.
[90] M/V 'Saiga' Case (Saint Vincent and the Grenadines v. Guinea), Prompt Release, Judgment of 4 December 1997, ITLOS Reports 1997, p. 16, para 63.
[91] M/V 'Saiga' (No. 2) (Saint Vincent and the Grenadines v. Guinea), Judgment of 1 July 1999, ITLOS Reports 1999, p. 10, paras 137–138.
[92] Ibid paras 129–136.
[93] M/V 'Virginia G' Case para 58–63.

coastal State there must be a direct connection to fishing', and it observed that 'such connection to fishing exists for the bunkering of foreign vessels fishing in the [EEZ]'.[94] It went on to declare that

> the regulation by a coastal State of bunkering of foreign vessels fishing in its [EEZ] is among those measures which the coastal State may take in its [EEZ] to conserve and manage its living resources under article 56 of the Convention read together with article 62, paragraph 4, of the Convention. This view is also confirmed by State practice which has developed after the adoption of the Convention.[95]

As mentioned earlier, in the subsequent *Norstar* case, ITLOS held that bunkering on the high seas came within the high seas freedom of navigation, which it noted also applies in the EEZ under Article 58(1) of UNCLOS.[96] This suggested that bunkering of ships other than fishing vessels in the EEZ was not subject to coastal State regulation. ITLOS confirmed this finding shortly afterwards in the *San Padre Pio* case at the provisional measures phase when it observed that Switzerland's 'claims that bunkering activities carried out by the *M/T San Padre Pio* in the EEZ of Nigeria are part of the freedom of navigation and that it has exclusive jurisdiction as flag State with respect to such bunkering activities' appeared to be 'plausible'.[97] ITLOS gave no reasons to support this view other than noting that it took into account the legal arguments of the parties and the evidence available to it. By agreement of the two parties in December 2021, the proceedings of the merits of the *San Padre Pio* case was discontinued and ITLOS did not have the chance to confirm its provisional view on the merits.[98]

In *La Bretagne*, the arbitral tribunal did not accept Canada's claim that it could regulate fish-processing equipment because the prohibition of using on-board filleting equipment was not explicitly included in its national law, and it was not a 'long-standing policy', but not because Canada did not have the right to prescribe such regulations.[99] In *M/V Saiga*, ITLOS rejected the application of customs law in the EEZ but suggested reclassifying the bunkering of fishing vessels as an activity

[94] Ibid para 215.
[95] Ibid para 217.
[96] M/V 'Norstar' Case paras 219–220.
[97] M/T 'San Padre Pio' Case paras 107–108.
[98] Churchill, Lowe and Sander (2022) 272–273; M/T 'San Padre Pio' (No. 2) Case (Switzerland v. Nigeria), Order, 29 December 2021.
[99] La Bretagne Arbitration 622–626 (paras 42–46).

ancillary to fishing.[100] Later in *M/V Virginia G*, ITLOS stated expressly that the coastal State has the right to regulate bunkering of foreign vessels fishing in its EEZ as an activity ancillary to fishing.[101]

There is a tendency for a coastal State to claim jurisdiction over a broad range of activities that may affect its sovereign rights over the living resources in the EEZ. The Canadian Coastal Fisheries Protection Act defines a fishing vessel in a broad scope. It includes the vessel that is used or equipped for fishing; processing or transporting fish; taking, processing or transporting marine plants; provisioning, servicing, repairing or maintaining any vessels of a foreign fishing fleet while at sea; and transhipping fish or marine plants.[102] Whether or not the activity concerned is sufficiently connected to the sovereign rights of the coastal State ought to be decided on a case-by-case basis, taking into account the circumstances under which the activity is conducted and depending on the type of legislation applied by the coastal State.[103] But such laws need to be compatible with UNCLOS and must not unreasonably impede other States' freedoms in the EEZ. Compliance with coastal States' laws and regulations would inevitably increase the burden of foreign vessels traversing these waters; more importantly, violation of these laws could lead to enforcement measures being taken by coastal States.

4.2.2 *Non-Living Resources*

The coastal State's 'sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources' in the EEZ also cover the non-living resources of the seabed and subsoil as well as the superjacent waters.[104] The indication of non-living resources of 'the waters superjacent to the seabed' refers to the various minerals which can be extracted from sea waters.[105] Generally, the reference to 'conserving

[100] M/V 'Saiga' Case para 63.
[101] M/V 'Virginia G' Case para 217.
[102] Canada, Coastal Fisheries Protection Act, Article 2(1).
[103] David Anderson, 'Coastal State Jurisdiction and High Seas Freedoms in the EEZ in the Light of the Saiga Case', in Clive R. Symmons (ed.), *Selected Contemporary Issues in the Law of the Sea* (Martinus Nijhoff 2011) 113.
[104] UNCLOS Article 56(1)(a).
[105] Churchill, Lowe and Sander (2022) 264.

and managing' applies primarily, if not exclusively, to the living resources, and the phrase 'exploring and exploiting' is intended to apply to non-living resources.[106]

In respect of the non-living resources found on the seabed and of its subsoil, the EEZ overlaps in its entirety with the continental shelf regime within the 200 NM limit from the baseline.[107] Coastal States thus enjoy essentially unrestricted rights in the sense that no one has the right to share these resources even if the coastal State does not undertake such exploration and exploitation.[108] Coastal States also have exclusive right to authorise, use and regulate any means to conduct the exploration and exploitation, including drilling for all purposes and tunnelling.[109] The primary facilities from which exploration and exploitation take place are artificial islands, offshore installations and structures, all of which the coastal State has exclusive right to construct and to authorise and regulate.[110]

All States, in exercising their freedoms and performing their duties, must have due regard to the rights and duties of the coastal State and must comply with duly adopted domestic laws and regulations.[111] It would be impossible for coastal States to undertake economic exploration and exploitation of the non-living resources unless other States admit some slight encroachment on high seas freedoms.[112] In exercising its sovereign rights over non-living resources, the coastal State undertakes the same obligation to have due regard to other States' rights and duties and shall not unduly affect their implementation. The use of the infrastructure to support the exploration and exploitation will be the primary concern that may interfere with foreign navigation and overflight, which will be discussed in Section 4.4.

4.2.3 Other Activities for Economic Uses

According to Article 56(1)(a), the coastal State's sovereign rights also extend to 'other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds'. The examples are not exhaustive, as indicated by the phrase

[106] Proelss 'Article 56' (2017) 426; Churchill, Lowe and Sander (2022) 263–264.
[107] UNCLOS Articles 56(3), 77.
[108] UNCLOS Article 77(1).
[109] UNCLOS Articles 81, 85.
[110] Nordquist, Nandan and Rosenne (1993) 928; UNCLOS Articles 60(1)(b)–(c), 80.
[111] UNCLOS Article 58(3).
[112] Churchill, Lowe and Sander (2022) 242.

'such as', and are intended to cover all of the economic activities that may emerge, including the production of solar energy or thermal energy from the ocean, the utilisation of minerals dissolved in marine waters, offshore aquaculture activities, ocean fertilization and other marine geoengineering activities, the exploitation of icebergs as freshwater reservoirs and the desalination of sea water.[113] This provision permits the coastal State to take advantage of technological developments to further its economic interests through any new means to utilise or exploit the natural resources of the EEZ.[114] It also, arguably, gives the coastal State jurisdiction over activities affiliated with such emerging uses. The construction and utilisation of the supporting infrastructure to these economic exploitation and exploration activities must be read in conjunction with the coastal State's jurisdiction over artificial islands, installations and structures that will be discussed in Section 4.4.

Most coastal States have asserted such rights by incorporating Article 56(1) verbatim without specifying these activities.[115] It is not entirely clear from such national legislation and subsequent State practice what activities may be included in 'other activities for the economic exploitation and exploration of the zone'. However, reserving such activities to the coastal State's rights ultimately prevented them from being classified as unattributed rights, and as such facilitated the determination and attribution of other residual rights of the EEZ under Article 59.[116]

The exercise of the sovereign rights over these potential economic activities would be subject to the same rules as other economic uses of the EEZ. On the one hand, the coastal State has both legislative and enforcement jurisdiction over these economic activities. On the other hand, while carrying out these economic activities, coastal States are obliged to have due regard to the freedoms of other States and must refrain from activities that cause unreasonable interference with these freedoms.

[113] Kwiatkowska (1989) 105–106; Dux (2011) 54; Proelss 'Article 56' (2017) 427. GESAMP (2019). 'High level review of a wide range of proposed marine geoengineering techniques' (P. W. Boyd and C. M. G. Vivian, eds.). (IMO/FAO/UNESCO-IOC/UNIDO/WMO/IAEA/UN/UN Environment/UNDP/ISA Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection). Rep. Stud. GESAMP No. 98, 144, 42–77.

[114] Churchill, Lowe and Sander (2022) 266.

[115] UN DOALAS, *The Law of the Sea: National Legislation on the Exclusive Economic Zone* (United Nations, 1993); Robin R. Churchill, 'The Impact of State Practice on the Jurisdictional Framework Contained in the LOS Convention', in Alex G. Oude Elferink (ed.), *Stability and Change in the Law of the Sea: The Role of the LOS Convention* (Martinus Nijhoff 2005) 127–128.

[116] Orrego Vicuña (1989) 72.

4.2.4 *Enforcement Jurisdiction*

Coastal States' enforcement powers[117] came a long way during the negotiation of UNCLOS, as many major long-distance fishing States preferred exclusive flag State enforcement jurisdiction or jurisdiction through regional or international organisations with regard to violations in the EEZ.[118] The International Law Commission (ILC) recognised, when it first introduced the term 'sovereign rights' into the context of the continental shelf in the 1956 Draft Articles, that enforcement powers must be included to guarantee the exercise of such rights.[119] This authorisation is explicitly included in Article 73 of UNCLOS where a foreign vessel is found fishing without a licence, or acting in a way contrary to its licence, or infringing any other applicable laws and regulations in the EEZ, the coastal State may board, inspect, arrest and initiate juridical proceedings as appropriate against the vessel to ensure compliance.[120] The precondition of the enforcement jurisdiction is that the coastal State has established relevant laws and regulations on fishing that are compatible with UNCLOS.[121] Although coastal States are given broad enforcement jurisdiction as 'in the exercise of its sovereign rights' over the living resources, they must act in 'good faith' and have 'due regard to the rights and duties of other States'.[122]

It is noteworthy that the coastal State does not have explicit enforcement jurisdiction for exploration and exploitation of the non-living resources or other economic activities, in contrast to the clear authorisation for living resources provided in Article 73.[123] Nevertheless, the coastal State should have the competence to prevent and punish such violations of foreign vessels based on the extensive scope of its sovereign rights.[124] This competence is further recognised in Article 111 of

[117] Enforcement jurisdiction over IUU fishing and the general right of hot pursuit are also discussed in Chapter 7 in this volume.
[118] Nordquist, Nandan and Rosenne (1993) 786–791; James Harrison, 'Article 73', in Proelss (2017) 557–558.
[119] ILC Draft Articles Article 68 Commentary 2.
[120] UNCLOS Article 73(1); M/V 'Virginia G' Case para 266.
[121] M/V 'Saiga' (No. 2) paras 122, 136.
[122] UNCLOS Articles 56(2), 73(1), 300; M/V 'Virginia G' Case para 347.
[123] Nordquist, Nandan and Rosenne (1993) 791–794; Gemma Andreone, 'The Exclusive Economic Zone', in Donald R. Rothwell, Alex G. Oude Elferink, Karen N. Scott and Tim Stephens (eds.), *The Oxford Handbook of the Law of the Sea* (Oxford University Press 2015) 170; Churchill, Lowe and Sander (2022) 244.
[124] M/V 'Virginia G' Case para 211; Arctic Sunrise Arbitration paras 283–284, 324; Churchill, Lowe and Sander (2022) 263.

UNCLOS where the right of hot pursuit applies to violations of the EEZ or continental shelf laws and regulations.[125] The coastal State would have the right to take 'appropriate' measures to prevent interference with its sovereign rights to non-living resources in the EEZ or on the continental shelf, provided that such measures 'fulfil the tests of reasonableness, necessity and proportionality'.[126] There are coastal States that clearly claim enforcement jurisdiction over violations with regard to the exploration and exploitation of non-living resources in the EEZ or on the continental shelf. Canada, for example, applies federal laws 'on or under any marine installation or structure ... attached or anchored to the continental shelf of Canada in connection with the exploration of that shelf or exploitation of its mineral or other non-living resources'.[127] A Canadian court would have jurisdiction 'in respect of any such matter involving a federal law' that arises in the EEZ, and the court may 'make any order or exercise any power it considers necessary' in respect of such matter.[128] The enforcement officer is authorised to exercise the powers to stop, inspect, search and seize any suspected conveyance, on reasonable grounds, to ensure compliance with applicable Canadian laws.[129]

It is significant that the right of hot pursuit applies to violations in the EEZ.[130] If the coastal State has 'good reason to believe that the ship has violated the laws and regulations' applicable in the EEZ, it may approach the ship and verify its flag and other basic information.[131] Hot pursuit may only be commenced when the foreign ship is in the EEZ and refuses to stop voluntarily after being given a visual or auditory signal to do so.[132] It is not necessary that the order to stop is given when the foreign ship is undertaking the activities that violated the applicable law. As confirmed in the *M/V Saiga*, the fact that the pursuit commenced after the alleged illegal activity took place was not challenged by either the flag State or ITLOS.[133] Hot pursuit must be continuous and

[125] UNCLOS Article 111(2); Myron H. Nordquist, Satya N. Nandan and Shabtai Rosenne (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. III (Martinus Nijhoff 1995) 257.
[126] M/V 'Virginia G' Case paras 284, 326–327; Arctic Sunrise Arbitration para 326; Churchill, Lowe and Sander (2022) 264.
[127] Canada, Oceans Act Article 20(1).
[128] Ibid Article 22(1) and (3).
[129] Ibid Article 39(1).
[130] UNCLOS Articles 58(2), 111(1); Arctic Sunrise Arbitration para 244.
[131] UNCLOS Articles 73(1), 111(1), 214, 216(1), 220(3) and (5)–(6), 226(1).
[132] UNCLOS Article 111(4).
[133] M/V 'Saiga' (No. 2) paras 140, 142, 147.

uninterrupted in order for it to be continued outside the EEZ, and such right ceases when the foreign ship pursued 'enters the territorial sea of its own State or of a third State'.[134] These conditions for the exercise of the right of hot pursuit are 'cumulative; each of them has to be satisfied for the pursuit to be legitimate under the Convention'.[135]

The term 'boarding' implies that coastal authorities may board the vessel and may use force if it is necessary and not in violation of UNCLOS and the Charter of the United Nations.[136] 'Inspection' is normally limited to the examination of various certificates, records or other documents that the vessel is required to carry; further inspection may be undertaken if the circumstances so warrant.[137] The word 'arrest' is used in relation to both the vessel and the crew, signifying the initiation of detention with the purpose of invoking judicial proceedings.[138] These necessary enforcement procedures must be applied on reasonable grounds and be proportional to the circumstances to ensure that the legal rights of the foreign vessel and the fishers are not unduly interfered with.[139]

The coastal State must apply lawful enforcement measures to board and arrest the foreign vessel, particularly in cases where the use of force was involved. First, these 'enforcement activities can be exercised only by duly authorized identifiable officials of a coastal State and . . . their vessels must be clearly marked as being on government service'.[140] Second, enforcement activities should not 'endanger the safety of navigation or otherwise create any hazard to a vessel, or bring a vessel to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk'.[141] Third, although the use of force is not prohibited, it 'must be avoided as far as possible and, where force is unavoidable, it must not go beyond what is reasonable and necessary under the circumstances.

[134] UNCLOS Article 111(1) and (3).
[135] M/V 'Saiga' (No. 2) para 146.
[136] Charter of the United Nations (6 June 1945, in force 24 October 1945) 1 UNTS XVI, Article 2(4); UNCLOS Article 225; Nordquist, Nandan and Rosenne (1993) 794; Harrison 'Article 73' (2017) 559.
[137] UNCLOS Article 226(1); Nordquist, Nandan and Rosenne (1993) 794; Harrison 'Article 73' (2017) 558.
[138] Nordquist, Nandan and Rosenne (1993) 795.
[139] M/V 'Virginia G' Case para 270; Churchill, Lowe and Sander (2022) 546.
[140] M/V 'Virginia G' Case para 342.
[141] UNCLOS Article 225; M/V 'Virginia G' Case para 373.

Considerations of humanity must apply in the law of the sea, as they do in other areas of international law'.[142]

The coastal State's enforcement measures will predictably affect the activities of foreign vessels in the EEZ. In order to minimise the potential impacts and protect the flag State's jurisdiction, UNCLOS has laid down further safeguards for the exercise of coastal State enforcement jurisdiction. Coastal States are obliged to promptly notify the flag State, through appropriate channels, of the arrest or detention of its vessels, of the actions taken and any subsequently imposed penalties.[143] It is worth noting that the coastal State is not required to suspend its proceedings to impose penalties if the flag State takes actions, and its right to institute proceedings is not subject to a prosecution period as in the case of vessel-source pollution in the EEZ, which is discussed in Section 4.3.3.

Moreover, a coastal State must promptly release the arrested fishing vessels and their crews upon the posting of reasonable bond or other security.[144] This obligation includes 'elementary considerations of humanity and due process of law' as well as 'a concern for fairness'.[145] The coastal State should, based on its domestic law, determine the reasonable bond or security that is of a financial nature in light of the assessment of relevant factors.[146] In the case where the flag State challenges the release of the detained vessel and crews by the coastal State, it may bring the dispute under a special compulsory procedure known as prompt release as discussed in Section 4.5.[147] The question of release will be dealt with by a court or tribunal that has jurisdiction 'without prejudice to the merits of any case before the appropriate domestic forum against the vessel, its owner or its crew'.[148]

[142] Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (4 August 1995, in force 11 December 2001) 2167 UNTS 3, Article 22(1)(f) (Fish Stocks Agreement); M/V 'Saiga' (No. 2) paras 155–156; M/V 'Virginia G' Case para 360.

[143] UNCLOS Article 73(4); M/V 'Virginia G' Case para 328.

[144] UNCLOS Article 73(2); The 'Monte Confurco' Case (Seychelles v. France), Prompt Release, Judgment of 18 December 2000, ITLOS Reports 2000, p. 86, para 70.

[145] The 'Juno Trader' Case (Saint Vincent and the Grenadines v. Guinea-Bissau), Prompt Release, Judgment of 18 December 2004, ITLOS Reports 2004, p. 17, para 77.

[146] The 'Volga' Case (Russian Federation v. Australia), Prompt Release, Judgment of 23 December 2002, ITLOS Reports 2002, p. 10, para 77; The 'Hoshinmaru' Case (Japan v. Russian Federation), Prompt Release, Judgment of 6 August 2007, ITLOS Reports 2005–2007, p. 18, para 88.

[147] UNCLOS Article 292(1); Harrison 'Article 73' (2017) 560.

[148] UNCLOS Article 292(3); M/V 'Saiga' Case para 86.

Furthermore, where the violations are established, the coastal State may impose appropriate penalties as applicable in its domestic law based on its sovereign rights in the EEZ.[149] These sanctions are expected to be 'adequate in severity to be effective in securing compliance and to discourage violations wherever they occur and shall deprive offenders of the benefits accruing from their illegal activities'.[150] ITLOS has confirmed that, 'in the light of the practice of coastal States on the sanctioning of violations of fishing laws and regulations', penalties imposed under Article 73(1) may include the confiscation of fishing vessels.[151] However, the imposed penalties 'may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other forms of corporal punishment'.[152] Nevertheless, there are around twenty States that apply imprisonment penalties for violations of their EEZ laws.[153] For example, under Indian law, offences of the EEZ regulations may be punished with imprisonment of up to three years with or without fines.[154] Similar provisions can be found in the EEZ laws of Bangladesh,[155] Barbados,[156] the Philippines[157] and Portugal.[158] These domestic laws have clearly exceeded the enforcement rights permitted under UNCLOS.[159]

[149] M/V 'Virginia G' Case, Dissenting Opinion of Vice-President Hoffmann, Judges Marotta Rangel, Chandrasekhara Rao, Kateka, Gao and Bouguetaia, para 49; Harrison 'Article 73' (2017) 562.

[150] Fish Stocks Agreement Article 19(2).

[151] The 'Tomimaru' Case (Japan v. Russian Federation), Prompt Release, Judgment of 6 August 2007, ITLOS Reports 2005–2007, p. 74, para 72; M/V 'Virginia G' Case para 253.

[152] UNCLOS Article 73(3); M/V 'Virginia G' Case para 305.

[153] Roach (2021) 170.

[154] India, The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, Act No. 80 of 28 May 1976, Article 11, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/IND_1976_Act.pdf.

[155] Bangladesh, Territorial Waters and Maritime Zones Act, No. XXVI of 1974, Article 9(3), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/BGD_1974_Act.pdf.

[156] Barbados, Marine Boundaries and Jurisdiction Act, 1978-3, 25 February 1978, Article 6(3), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/BRB_1978_3.pdf.

[157] Philippines, Presidential Decree No. 1599 of 11 June 1978 Establishing an Exclusive Economic Zone and for other Purposes, Section 5(b), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/PHL_1978_Decree.pdf.

[158] Portugal, Act No. 33/77, Territorial Sea and the EEZ, Article 8(2).

[159] Nordquist, Nandan and Rosenne (1993) 795; Harrison 'Article 73' (2017) 561.

It is a considerable challenge for many coastal States to maintain effective surveillance and enforcement of vast EEZs, especially for developing States and small islands States.[160] Hence, many States have engaged in increasing co-operation through regional or international fishery management organisations or bodies to share information, conduct joint surveillance or undertake reciprocal enforcement activities.[161] In the South Pacific region, for example, seventeen States established the Pacific Islands Forum Fisheries Agency (FFA) in 1979 to provide monitoring, control and surveillance activities, policy and services for members to strengthen national capacity, and regional solidarity to achieve sustainable use of fisheries within their EEZs.[162] The FFA developed a Regional Monitoring, Control and Surveillance Strategy since 2010 and established a Regional Fisheries Surveillance Centre to coordinate the regional efforts to prevent, deter and eliminate IUU fishing in the Pacific with particular emphasis on optimised use of existing and innovative surveillance and enforcement assets from the member States.[163]

The EEZ regime gives coastal States sovereign rights and extensive competence over natural resources. Such powers were deemed necessary to protect the legitimate interests granted to the coastal State, notwithstanding corresponding curtailment of the navigational freedoms of other States. It is inevitable that the freedoms of navigation and overflight will be affected to a certain degree, especially by IMO approved navigational measures and those directly connected with fishing activities. Nevertheless, the coastal State's sovereign rights in the EEZ are confined to the functional 'purpose of exploring and exploiting, conserving and managing the natural resources', which is different from the rigorous term 'sovereignty'.[164] When exercising its rights and performing its duties, the coastal State must 'fulfil in good faith' the mutual obligation

[160] Churchill, Lowe and Sander (2022) 548.
[161] FAO, 'Fisheries and Aquaculture, Regional Fishery Bodies (RFB)' www.fao.org/fishery/en/rfb.
[162] Pacific Islands Forum Fisheries Agency (FFA), 'About the Pacific Islands Forum Fisheries Agency' www.ffa.int/about-us/#.
[163] FFA, Regional Monitoring, Control and Surveillance Strategy 2010–2015 (adopted by FFC74, May 2010), https://macbio-pacific.info/wp-content/uploads/2017/08/RMCSS-adopted-FFC-74-in-2010_0.pdf; FFA, Regional Monitoring, Control and Surveillance Strategy 2018-2023, www.ffa.int/download/regional-monitoring-control-and-surveillance-mcs-strategy-2018-2023/.
[164] UNCLOS Article 56(1); Proelss 'Article 56' (2017) 424.

of 'due regard', and act 'in a manner which would not constitute an abuse of right'.[165] The exercise of the coastal State's sovereign rights must be closely related to the purposes for which the EEZ was established and must not cause unreasonable obstruction of other States' navigational freedoms.

4.3 Jurisdiction to Protect and Preserve the Marine Environment

4.3.1 General Obligation of Environmental Protection

In the wake of increasing concern about the environment, a general obligation of all States, whether coastal or landlocked, to protect and preserve the marine environment has been incorporated in Article 192 of UNCLOS. It is primarily an obligation to diligently prevent and control threats for the irreversible damage that may be caused to the marine environment, echoing the general environmental law principle, namely the precautionary approach.[166] The consensus reached at the Third Conference, the degree of acceptance of UNCLOS and subsequent State practice support the conclusion that the provisions on the protection and preservation of the marine environment represent an agreed codification of existing principles which are now part of customary international law and apply to both Party and non-Party States.[167] UNCLOS remains the only global treaty to address all matters relating to the protection and preservation of the marine environment, which is implemented and complemented by other relevant environmental treaties.[168]

The two main elements of the law relating to the protection of the marine environment are the conservation of marine biodiversity and the control of marine pollution, with the former being addressed mainly through fisheries management and conservation and the latter dominating the major provisions in Part XII of UNCLOS.[169] In the EEZ, this general environmental obligation needs to be read in conjunction with the coastal State's sovereign rights over the living resources and its

[165] UNCLOS Articles 56(3), 300.
[166] UNCLOS Article 194; Rio Declaration on Environment and Development, Principle 15; UNGA A/CONF.151/26 (Vol. I), 12 August 1992, Report of the United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 3–14 June 1992, Annex 2: Agenda 21, Chapter 17, para 17.22(a) (Agenda 21).
[167] Boyle and Redgwell (2021) 510–511.
[168] Churchill, Lowe and Sander (2022) 604–607; Climate Change Advisory Opinion, paras 223, 385.
[169] Churchill, Lowe and Sander (2022) 620–627.

jurisdiction as provided for in the relevant provisions of UNCLOS. As discussed earlier, conservation of the living resources in the EEZ has been given specific content by Article 61, which ties it to measures coastal States take to establish allowable catches, and conservation should not include a general competence for pollution control in the EEZ.[170]

Pollution is defined under UNCLOS as 'the introduction by man, directly or indirectly, of substances or energy into the marine environment' that may result in deleterious effects to marine resources or activities.[171] This definition is extensive enough to cover any human activity that satisfies these criteria, including shipping.[172] Pollution from ships takes the form of both catastrophic events and chronic pollution from regular operational discharges and can include oil and oily mixtures, noxious liquid substances, sewage, garbage, noxious solid substances, anti-fouling systems, harmful aquatic organisms and pathogens, underwater noise, air pollution and greenhouse gas emissions.[173] These substances and energy may cause serious or irreversible degradation of the marine environment. It has been recognised that shipping represents a significant contribution to the cumulative pressures that humans are imposing on the marine environment, which affects the harvest from the sea and the maintenance of biodiversity.[174]

Both the flag State and the nationality State have the primary responsibility to ensure that the ships flying their flags or under their jurisdiction comply with environmental regulations and standards.[175] Within the EEZ, the coastal State may claim concurrent jurisdiction over a foreign vessel or activity as authorised by UNCLOS and other international law.

[170] Horace B. Robertson, 'Navigation in the Exclusive Economic Zone' (1983–1984) 24(4) Va J Int'l L 865, 897.

[171] UNCLOS Article 1(4).

[172] Agenda 21, Chapter 17, para 17.18; Amit A. Pandya and Rupert Herbert-Burns with Junko Kobayashi, *Maritime Commerce and Security: The Indian Ocean* (Stimson Center 2011) 55. Climate Change Advisory Opinion, para 161.

[173] Agenda 21, Chapter 17, para 17.20; UNGA A/70/112, 22 July 2015, Summary of the First Global Integrated Marine Assessment, paras 138–143; IMO Revised PSSA Guidelines para 2.2; Timothy Fileman, Stephen de Mora and Thomas Vance, 'Physical Effects of Ships on the Environment', in Stephen de Mora, Timothy Fileman and Thomas Vance (eds.), *Environmental Impact of Ships* (Cambridge University Press 2020) 216–222. Climate Change Advisory Opinion paras 179.

[174] Alan Simcock and Osman Keh Kamara, 'Chapter 17: Shipping', in United Nations, *The First Global Integrated Marine Assessment: World Ocean Assessment I* (Cambridge University Press 2017).

[175] UNCLOS Articles 94(1), 194(2), 211(2), 217(1).

4.3.2 *Prescriptive Jurisdiction*

According to Article 56, the coastal State's environmental jurisdiction is 'as provided for in the relevant provisions of [UNCLOS]' contained in Part XII.[176] Coastal States shall take 'all measures consistent with [UNCLOS] that are necessary', using 'the best practicable means at their disposal and in accordance with their capabilities' to prevent, reduce and control pollution of the marine environment in the EEZ.[177] While taking these environmental regulation measures, the coastal State 'shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with [UNCLOS]'.[178] These requirements are intended to balance environmental protection needs and navigational interests in the EEZ.[179]

4.3.2.1 Regulation of Ships and Shipping

Under UNCLOS, jurisdiction over the prevention, reduction and control of vessel-source pollution is divided between the flag State, the coastal State and the port State.[180] The extension of coastal State jurisdiction over foreign ships for environmental issues was one of the innovative features of the EEZ regime, which from very early in the negotiations was linked to the idea of internationally accepted rules.[181] This linkage is highlighted through the notion of 'generally accepted international rules and standards' which 'reflected the crux of a delicately weighed balance of power arrived at between coastal states and shipping nations'.[182] Thus, the competence of a coastal State is limited to applying international rules and standards established by the competent international

[176] UNCLOS Article 56(1)(b)(iii).

[177] UNCLOS Article 194(1) and (3)(b); Myron H. Nordquist, Shabtai Rosenne and Alexander Yankov (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. IV (Martinus Nijhoff 1991) 65.

[178] UNCLOS Article 194(4).

[179] Nordquist, Rosenne and Yankov (1991) 200.

[180] UNCLOS Articles 56(1)(b)(iii), 94, 211, 217–218, 220.

[181] James Harrison, *Making the Law of the Sea* (Cambridge University Press 2011) 170; Kristin Bartenstein, 'Article 211', in Proelss (2017) 1434; Churchill, Lowe and Sander (2022) 270.

[182] International Law Association (ILA), 'Report of the Committee on Coastal State Jurisdiction relating to Marine Pollution' (ILA 2000) 45; Erik Franckx, *Vessel-Source Pollution and Coastal State Jurisdiction: The Work of the ILA Committee on Coastal State Jurisdiction Relating to Marine Pollution* (1991–2000) (Kluwer Law International 2001) 11.

organisation, the IMO, or a general international conference over foreign ships.[183] The rules of reference also allows State to implement those subsequently adopted or amended international rules and standards.[184] It should be acknowledged that there are no unified criteria to determine which international rules and standards have reached the status of 'generally accepted'.[185] It could be argued that this reference should not be limited to customary international law or binding agreements, but also include non-binding rules and standards that have been widely followed in State practice.[186] Of particular interest, the resolutions of the IMO Assembly and other main technical bodies are normally adopted by consensus of all 176 IMO Member States and accordingly reflect global agreement.[187] These resolutions often incorporate recommendations on the implementation of technical rules and standards not included in IMO treaties that can be adopted by national legislations to apply to foreign ships.[188] In addition, these resolutions may later be developed into mandatory instruments, either as an amendment to an existing treaty or as an independent treaty.[189]

Essentially, vessel-source pollution is caused by either operational (intentional) discharges or accidental (unintentional) discharges.[190] Measures to prevent, reduce and control vessel-source pollution are consequently divided into two categories: rules and standards relating to the characteristics and management of the vessel to reduce and regulate operational discharges; and regulation of the vessel and naviga-

[183] Nordquist, Rosenne and Yankov (1991) 200–201, 204; IMO LEG/MISC.8 (2014) 7–10.
[184] Climate Change Advisory Opinion paras 130–131.
[185] Bartenstein 'Article 211' (2017) 1434–1437; Sun (2021) 480; Roach (2021) 623–626. Climate Change Advisory Opinion para 280.
[186] Bernard H. Oxman, 'The Duty to Respect Generally Accepted International Standards' (1991) NYU J Int' L & Pol 109, 146–147; ILA, 'Report of the Committee on Coastal State Jurisdiction relating to Marine Pollution' (2000) 37–38. James Harrison, *Saving the Oceans through Law: The International Legal Framework for the Protection of the Marine Environment* (Oxford University Press, 2017), 140–141.
[187] Convention on the International Maritime Organization (6 March 1948, in force 17 March 1958) 289 UNTS 3, Articles 15, 28, 38; IMO, 'Member States, IGOs and NGOs' www.imo.org/en/About/Membership/Pages/Default.aspx.
[188] IMO LEG/MISC.8 (2014) 10.
[189] Zhen Sun, 'Unconventional Lawmaking in the Compliance Mechanism for the International Regulation of Shipping', in Natalie Klein (ed.), *Unconventional Lawmaking in the Law of the Sea* (Oxford University Press 2022) 99.
[190] Boyle and Redgwell (2021) 523–524.

tion to prevent and counter accidental discharges.[191] Recognising safer ships will reduce vessel-source pollution and lead to cleaner seas means that regulations to improve navigational safety positively contribute to the protection of the marine environment.[192] It is further recognised that ships contribute to air pollution and global emissions of carbon dioxide which are subject to regulations developed under the International Convention for the Prevention of Pollution from Ships (MARPOL).[193] The coastal State may regulate pollution of the marine environment from or through the atmosphere, applicable to the air space under its sovereignty and to vessels flying its flag or vessels or aircraft of its registry.[194] Therefore, the coastal State may adopt laws to regulate air pollution from foreign ships by giving effect to relevant international rules and standards, but may not regulate air pollution from foreign aircraft in its EEZ.

It is noteworthy that subsequent State practice also granted the coastal State additional rights to locate, mark and remove shipwrecks found in its EEZ if they pose a hazard to navigation or the marine environment.[195] The Nairobi International Convention on the Removal of Wrecks (RWC) was concluded under the auspice of IMO and applies only to the EEZ, or to an equivalent coastal area of up to 200 NM where no EEZ is claimed.[196] The primary responsibility for removing a wreck rests with the registered owner, who is liable for the costs of locating, marking and removing the wreck and is obliged to maintain compulsory insurance or other financial security for such purposes.[197] The coastal State in whose

[191] UNCLOS Article 194(3)(b); Erik J. Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (Kluwer Law International 1998) 21–25; IMO, 'Marine Environment' www.imo.org/en/OurWork/Environment/Pages/Default.aspx.

[192] *Safer Ships, Cleaner Seas – Report of Lord Donaldson's Inquiry into the Prevention of Pollution from Merchant Shipping, presented to Parliament by the Secretary of State for Transport by Command of Her Majesty, May 1994* (HM Stationery Office 1994).

[193] IMO, 'Climate Action and Clean Air in Shipping' www.imo.org/en/OurWork/Environment/Pages/Decarbonization%20and%20Clean%20air%20in%20shipping.aspx; MARPOL Annex VI: The Prevention of Air Pollution from Ships. Climate Change Advisory Opinion paras 280, 291.

[194] UNCLOS Article 212(1).

[195] Churchill, Lowe and Sander (2022) 275–276; Nairobi International Convention on the Removal of Wrecks (18 May 2007, in force 14 April 2015) 3283 UNTS I-55565, Article 1 (1) (RWC). For shipwrecks of archaeological and historical nature, see Chapter 8 in this volume.

[196] IMO, 'Nairobi International Convention on the Removal of Wrecks' www.imo.org/en/About/Conventions/Pages/Nairobi-International-Convention-on-the-Removal-of-Wrecks.aspx; RWC Article 1(1).

[197] RWC Articles 10–12.

EEZ the wreck is located has been given the status as 'affected State' and a number of associated rights, such as determining whether a wreck poses a hazard, setting a deadline for removing the wreck of concern, and removing the wreck if the registered owner fails to meet that deadline.[198] Flag States to the RWC are deemed to have consented to such actions.[199] The preamble and Article 16 of RWC state that it is to be implemented consistently with UNCLOS and does not prejudice rights and obligations under UNCLOS.

The RWC represents a modest extension to the EEZ rights of coastal States bestowed by UNCLOS by expanding the legal basis to protect navigational safety and to prevent marine environmental harm from a wreck. Given the lack of explicit reference in UNCLOS, the rights granted to the coastal State in the RWC can be seen as a specific agreement in line with Article 59, attributing rights in respect of a matter not addressed in UNCLOS.[200] The coastal State is given the right to locate, mark and remove wrecks to protect its 'related interests' that are directly affected or threatened by a wreck. The 'related interests' are connected to the economic uses of the area, including fisheries activities and offshore infrastructures, and the wellbeing of the area concerned, including 'conservation of marine living resources and of wildlife'.[201] The exercise of coastal State rights is also guided by the principle of necessity and reasonableness, and giving due regard to the rights of other States.[202] The attribution and the exercise of the rights under RWC affirms the two legal doctrines under the EEZ regime of UNCLOS.

There are examples whereby the coastal State goes beyond the existing generally accepted international rules and standards to regulate foreign ships navigating in its EEZ. The conflicting State practice can be observed from the declarations and objections made by States when ratifying the Basel Convention.[203] Colombia, Ecuador, Egypt, India, Mexico, Portugal, Uruguay and Venezuela were of the view that they could require prior notification of all transboundary movements of hazardous wastes across their EEZ, whereas Finland, Germany, Italy, Japan, the Netherlands, Singapore, Sweden, the United Kingdom and the United States were

[198] RWC Articles 1(10), 6, 9(6)–(7).
[199] RWC Article 9(10).
[200] Churchill, Lowe and Sander (2022) 275–276.
[201] RWC Article 1(6).
[202] RWC Articles 7(2), 8(3), 9(1) and (5)–(8).
[203] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (22 March 1989, in force 5 May 1992) 1673 UNTS 57 (Basel Convention).

against such a position.[204] Moreover, Argentina, Brazil, Chile, Kiribati, Nauru, New Zealand and South Africa all have regulated the movement of nuclear ships or nuclear cargos in their EEZs, which was criticised by Japan, the United Kingdom and the United States on various occasions.[205] Ten States in the Pacific region also adopted the Waigani Convention to reduce and eliminate transboundary movements of hazardous and radioactive waste, including in their EEZs.[206] It is difficult to reach a definite conclusion on whether the relevant practice is sufficiently widespread and uniform to have given coastal States the right to regulate foreign ships based on the nature of the ship and its cargo.[207] These State practices have, nevertheless, promoted the development of both binding and non-binding instruments on the transport of dangerous goods and radioactive materials under the auspice of IMO and the International Atomic Energy Agency.[208]

Coastal States have been able to advance their unilateral legislation to the status of international rules and standards through appropriate channels. This process was demonstrated by the IMO's legislative process with regard to double-hull requirement for oil tankers, which was very much dictated by domestic developments in the United States following the *Exxon Valdez* incident of 1989, and in France, Spain and the European Communities following the sinking of the tankers *Erika* and *Prestige* in 1999 and 2002, respectively.[209] In particular, as a result of the breakup of the oil tanker *Prestige* in November 2002, Spain and France unilaterally asserted that they would require information and impose rigorous inspections on single-hull oil tankers in excess of 15 years old passing through their EEZs; if the vessels were found to be unseaworthy, they would be expelled from their EEZs.[210] This action was joined shortly

[204] Roach (2021) 467–471; Basel Convention, 'Declarations and Objections' https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-3&chapter=27&clang=_en.

[205] Jon M. Van Dyke, 'The Disappearing Right to Navigational Freedom in the Exclusive Economic Zone' (2005) 29 Marine Policy 107, 111–112; Roach (2021) 471–478.

[206] Convention to Ban the Importation in Forum Islands Countries of Hazardous Wastes and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (16 September 1995, in force 21 October 2001) Articles 1, 4, 6 (Waigani Convention) www.sprep.org/convention-secretariat/waigani-convention.

[207] Churchill, Lowe and Sander (2022) 278–279.

[208] UNGA A/RES/76/72, 20 December 2021, Oceans and the Law of the Sea, paras 172–175.

[209] Alan Khee-Jin Tan, *Vessel-Source Marine Pollution: The Law and Politics of International Regulation* (Cambridge University Press 2006) 139–155.

[210] Emma Daly, 'After Oil Spill, Spain and France Impose Strict Tanker Inspection', *The New York Times*, 27 November 2002 (online); UNGA A/58/65, 3 March 2003, Oceans and the Law of the Sea, Report of the Secretary-General, para. 57.

after by Portugal and Morocco, who urged the European Union to ban large single-hull tankers carrying heavy-grade oil from entering any European port.[211] These unilateral actions exceeded the coastal States' environmental jurisdiction in their EEZ and generated difficult debates at IMO.[212] However, over time, these unilateral actions effectively contributed to the acceleration of the gradual phasing-out of single-hull tankers within Europe[213] and then worldwide,[214] changing perceptions and the governing standards for the design and construction of oil tankers.

There are a large number of international conventions and instruments concerning vessel-source pollution that could arguably be considered 'generally accepted international rules and standards' and become applicable in the EEZ through domestic legislation.[215] It can be observed that all of the conventions and instruments are consistent with the jurisdiction allocated between the flag State and coastal State without giving additional right to the coastal State, except the RWC.[216] Should the coastal State choose to give effect to these rules and standards

[211] Jon M. Van Dyke, 'Balancing Navigational Freedom with Environmental and Security Concerns' (2004) 15 Colo J Int'l Env L & Pol'y 19, 22–23.

[212] UNCLOS Articles 56(1)(b)(iii), 211(5)–(6); IMO MSC 76/23, 16 December 2002, Report of the Maritime Safety Committee on Its Seventy-Sixth Session, paras 1.13–1.28; Churchill, Lowe and Sander (2022) 645.

[213] Regulations (EC) No 1726/2003 of the European Parliament and of the Council of 22 July 2003 amending Regulation (EC) No 417/2002 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers, OJ L 249/1 (2003).

[214] IMO Res MEPC.111(50), 4 December 2003, Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973.

[215] UN DOALOS, The Law of the Sea: Obligations of State Parties under the United Nations Convention on the Law of the Sea and Complementary Instruments (United Nations 2004); IMO LEG/MISC.8 (2014) 56–61; Gorana Jelic Mrcelic, Nikola Mandic and Ranka Petrinovic, 'International Legislative Framework', in De Mora, Fileman and Vance (2020) 336–344; IMO, 'List of IMO Conventions' www.imo.org/en/About/Conventions/Pages/ListOfConventions.aspx; IMO, 'Status of IMO Treaties: Comprehensive information on the status of multilateral Conventions and instruments in respect of which the International Maritime Organization or its Secretary-General performs depositary or other functions, 24 July 2024' www.imo.org/en/About/Conventions/Pages/StatusOfConventions.aspx; IMO, 'Global Integrated Shipping Information System (GISIS): Non-mandatory Instruments (registration required)' https://gisis.imo.org/Public/INSTR/Default.aspx.

[216] IMO LEG/MISC.8 (2014) 12–13, 59.

through its domestic laws, they could be the legal basis to hold the flag State responsible if a pollution incident does occur in the EEZ.

4.3.2.2 Specially Protected Areas

In addition to giving effect to the implementation of generally accepted international rules and standards, the coastal State may adopt, through appropriate channels, special measures to regulate ships and shipping in a particular area within its EEZ in association with various concepts of specially protected areas. The rationale of designating specially protected areas is that the general standards of protection may be inadequate due to the ecological or biological vulnerability of certain marine areas; therefore, a tailored regime with higher protection may be desirable.[217] The effective use of specially protected areas can contribute to the conservation of biodiversity, the protection of marine habitats and species, and the preservation of the marine environment.[218]

(1) Special Areas under MARPOL If the discharge of certain harmful substances by ships, even when operating in compliance with generally applicable international standards, becomes unacceptable in a certain area, the coastal State may, through IMO, define such area as a Special Area under the MARPOL annexes, and restrict and monitor the discharge more closely.[219] A Special Area may be designated within the EEZ and 'may encompass the maritime zones of several States, or even an entire enclosed or semi-enclosed area'.[220]

The IMO is the only competent organisation to approve the designation of a Special Area under MARPOL.[221] In the proposal for designation, the coastal State must prove that the proposed area satisfies the detailed criteria of oceanographic conditions, ecological conditions and vessel traffic characteristics.[222] The ecological conditions of the proposed area are directly linked to the subjects that fall under the sovereign rights of the coastal State, such as depleted, threatened or endangered marine species, spawning, breeding and nursery areas and critical habitats for

[217] Dux (2011) 19, 35.
[218] Graeme Kelleher, *Guidelines for Marine Protected Areas* (IUCN 1999) xiii, xvii.
[219] Dux (2011) 264–265; IMO Res A.1087(28), 4 December 2013, Guidelines for the Designation of Special Areas under MARPOL, Annex, para 2.1. Special Areas designated under MARPOL Annex VI are known as Emission Control Areas.
[220] IMO Res A.1087(28) Annex, para 2.2.
[221] Ibid para 3.1.
[222] Ibid paras 2.3–2.6.

marine resources, including fish stocks.[223] Other elements, such as threats to amenities, the influence of other sources of pollution and existing management regimes, may also be taken into account.[224]

Under the MARPOL annexes, there are four types of Special Areas addressing pollution from oil (ten designated Special Areas), noxious liquid substances (one designated Special Area), sewage (one designated Special Area) and garbage (eight designated Special Areas) and seven designated Emission Control Areas dealing with prevention of air pollution.[225] Many of these designated areas cover marine areas under the EEZ claims of coastal States in the Mediterranean Sea, the Baltic Sea, the North Sea, the Arctic waters, North West European Waters, the Wider Caribbean region, including the Gulf of Mexico and the Caribbean Sea, and North America.[226]

The more restrictive discharge requirements of these Special Areas may 'only become effective when adequate reception facilities are provided for ships in accordance with the provisions of MARPOL 73/78'.[227] Ships navigating in an enforced Special Area must obey such discharge restrictions.

(2) Particularly Sensitive Sea Areas If the 'recognized ecological, socio-economic, or scientific attributes' of an area are such that it 'may be vulnerable to damage by international shipping activities', coastal States may designate it through IMO as a 'Particularly Sensitive Sea Area (PSSA)', where associated protective measures could be adopted to 'prevent, reduce, or eliminate the threat or identified vulnerability'.[228] A PSSA can be designated in the EEZ 'with the view to the adoption of international protective measures regarding pollution and other damage caused by ships'.[229]

Coastal States, however, do not have unilateral legislative jurisdiction in the PSSA. Any proposed protective measures must be 'already

[223] Ibid para 2.5.
[224] Ibid paras 2.8–2.10.
[225] IMO, 'Special Areas under MARPOL' www.imo.org/en/OurWork/Environment/Pages/Special-Areas-Marpol.aspx. In December 2022, MEPC approved the proposal to designate the Mediterranean Sea Emission Control Area. See MEPC 79/15, 8 February 2023, Report of the Marine Environment Protection Committee on its Seventy-Ninth Session, para 3.32, Annex 3. In April 2024, MEPC approved the proposals to designate two Emission Contral Areas for the Canadian Arctic waters and Norwegian Sea covering EEZ of both States. See MEPC 81/16, 8 April 2024, Report of the Marine Environment Protection Committee on its Eighty-First Session, para 11.13.2.
[226] Ibid.
[227] IMO Res A.1087(28) Annex, para 2.7.
[228] IMO Revised PSSA Guidelines para 1.2.
[229] Ibid para 4.3.

available under an existing IMO instrument', or could be developed within the competence of IMO or pursuant to UNCLOS Article 211(6) concerning special areas.[230] Measures for the designated PSSAs must be adequate and clearly linked with the identified vulnerability of the area, which may include the designation of Special Areas under MARPOL, ships' routeing and reporting systems, areas to be avoided, pilotage schemes and other vessel traffic management systems.[231]

There are currently eighteen designated PSSAs worldwide, with many covering marine areas under the EEZ claims of coastal States.[232] For instance, the entire western coasts of the United Kingdom, Ireland, Belgium, France, Spain and Portugal, from the Shetland Islands in the North to Cape S. Vicente in the South, covering large areas of the territorial seas and the EEZs, were designated as a single PSSA in 2004.[233] In addition to the existing protective measures in this area, including various deep-water routes, areas to be avoided, traffic separation schemes and ships' routeing measures, a mandatory ship reporting system was adopted for 'every kind of oil tanker of more than 600 tonnes deadweight' carrying heavy crude oil, heavy fuel oils, bitumen and tar and their emulsions navigating in this PSSA.[234]

(3) Special Areas under Article 211(6) UNCLOS recognises the coastal State's right to establish special areas in the EEZ for the purpose of preventing and combatting vessel-source pollution. Where the generally accepted international rules and standards on vessel-source pollution are inadequate to meet the special circumstances, the coastal State may, through IMO, adopt special mandatory measures as 'required for recognized technical reasons in relation to its oceanographical and ecological conditions, as well as its utilisation or the protection of its resources and the particular character of its traffic' to a particular, clearly defined area of its EEZ.[235]

These additional protective measures seem to have considerable potential to enhance the level of stringency for regulating vessel-source

[230] Ibid para 7.5.2.3.
[231] Ibid paras 6.1, 7.5.2.1, 7.5.2.4.
[232] IMO, 'Particularly Sensitive Sea Areas' www.imo.org/en/OurWork/Environment/Pages/PSSAs.aspx.
[233] IMO MEPC.121(52), 15 October 2004, Designation of the Western European Waters as a Particularly Sensitive Sea Area, Annex 1: Description of the PSSA.
[234] IMO MSC.190(79).
[235] UNCLOS Article 211(6)(a).

pollution in comparison to the general international rules and standards applicable in the EEZ. Moreover, Article 211(6) provides the necessary prescriptive power for the coastal State to fulfil its general obligation to take measures 'necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life'.[236] However, as at 2024, no State has established a special area in the EEZ under Article 211(6).[237]

One reason for the limited use of Article 211(6) may be that some States consider this provision to not give the coastal State sufficient independence because of the lengthy requirement of obtaining approval from IMO.[238] At the Fourth Session of the Third Conference in 1976, India made a proposal to give coastal States the independent right to establish designated areas in the EEZ 'in which the coastal States may prohibit or regulate the entry and passage of foreign ships . . . and take such other measures as it may deem necessary or appropriate for the purpose of . . . protecting the marine environment' along with other purposes.[239] After this proposal had been rejected, India proclaimed such rights in its domestic law.[240] Similar legislation has been adopted by Bangladesh,[241] Guyana,[242] Nigeria,[243] Pakistan[244] and Sri Lanka.[245] These claims have given the coastal State wide

[236] UNCLOS Article 194(5).

[237] Churchill (2005) 130; Dux (2011) 209; Bartenstein 'Article 211' (2017) 1438; Nicola R Wheen, 'Marine Protected Areas in the Exclusive Economic Zone: UNCLOS or the TPPA's Looming Presence (2016) 14(2) Otago L Rev 351, 354–358.

[238] IMO MEPC 43/6/2 paras 18–22; Bartenstein 'Article 211' (2017) 1439–1442.

[239] 'Informal Proposal of India of 7 April 1976', in Renate Platzöder, Third United Nations Conference on the Law of the Sea: Documents, Vol. IV (Oceana Publications 1983) 294.

[240] India, The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, Article 7(6).

[241] Bangladesh, Territorial Waters and Maritime Zones Act, No. XXVI of 1974, Article 6; Bangladesh specifies its right to establish conservation zones in the EEZ for the maintenance of the productivity of the living resources of the sea, where it may take such conservation measures so adopted as it may deem appropriate for the purpose, including measures to protect the living resources of the sea from indiscriminate exploitation, depletion or destruction.

[242] Guyana, Maritime Boundaries Act, 1977, Act No.10 of 30 June 1977, Articles 12, 18, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/GUY_1977_Act.pdf.

[243] Nigeria, Exclusive Economic Zone Decree No.28 of 5 October 1978, Article 3(1) and (4),where associated protective measures could be adopte www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/NGA_1978_Decree.pdf.

[244] Pakistan, Territorial Waters and Maritime Zones Act, 1976, Article 6(4), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/PAK_1976_Act.pdf.

[245] Sri Lanka, Maritime Zones Law No.22 of 1976, Article 7, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/LKA_1976_Law.pdf.

discretionary power over the designated areas where navigational rights may be threatened. However, the comprehensive authority claimed by these States has drawn criticism to the creeping jurisdiction within the EEZ regime and has put their legitimacy into question.[246]

Another reason for the limited use of Article 211(6) would be that subsequent State practice has shown a preference to establish other types of specially protected areas. The most commonly used ones are Special Areas under MARPOL and PSSAs, which seem to have served the purpose of protecting special oceanographic and ecological conditions of areas within the EEZ.[247]

(4) Ice-Covered Areas Another UNCLOS-authorised special regime for environmental protection purposes in the EEZ is the coastal State's unilateral prescriptive jurisdiction in ice-covered areas.[248] It is recognised that the 'particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance', which makes such areas even more vulnerable to vessel-source pollution.[249]

In contrast with the general environmental jurisdiction and the special areas under Article 211(6), under Article 234 the coastal State has the right to unilaterally prescribe laws and regulations for ice-covered areas, with no restrictions to implement international rules and standards, nor do they need approval of IMO. Consequently, the coastal State has the competence to determine what type of standard vessels may enter and which sea lanes they must follow in its ice-covered EEZ. One of the uncertain elements of this special authorisation is that there is no general agreement on the definition of 'the presence of ice covering such areas for

[246] William T. Burke, 'National Legislation on Ocean Authority Zones and the Contemporary Law of the Sea' (1981) 9(3-4) Ocean Dev Int'l L 289, 295–296; Fabio Spadi, 'Navigation in Marine Protected Areas: National and International Law' (2000) 31 (3) Ocean Dev Int'l L 285, 294.

[247] IMO MEPC 43/6/2 paras 26–38; Harrison (2011) 187–189; Robin Churchill, 'Under-Utilized Coastal State Jurisdiction: Causes and Consequences', in Henrik Ringbom (ed.), *Jurisdiction over Ships: Post-UNCLOS Developments in the Law of the Sea* (Brill 2015) 295–296.

[248] Churchill, Lowe and Sander (2022) 646.

[249] UNCLOS Article 234.

most of the year', which is increasingly challenging due to the impact of climate change and the reduction of ice cover in the polar regions.[250]

This special authorisation to the coastal State, however, does not alter the fact that the ice-covered areas remain subject to the general EEZ legal regime established by UNCLOS.[251] And there are safeguards put in place to balance the environmental interests of coastal State in these areas with the navigational interests of all States.[252] In such areas, the coastal State is obliged to ensure that these measures are 'non-discriminatory' and 'based on the best available scientific evidence', and that they 'have due regard to navigation'.[253]

As the negotiating history indicates, Article 234 was negotiated directly among the Arctic littoral States – Canada, the Soviet Union (USSR) and the United States – and was intended to apply primarily to the Arctic.[254] Canada, for example, adopted the Arctic Waters Pollution Prevention Act and Arctic Shipping Pollution Prevention Regulations, among others, to ensure that navigation in Arctic waters is conducted in a way to preserve and protect the natural resources of the Canadian Arctic.[255] The special regulations include the establishment of shipping safety control zones where special construction, design, equipment and manning (CDEM) standards and requirements apply, and the use of ice navigators and Arctic Pollution Prevention Certificates are mandatory.[256]

The regulations for navigation in ice-covered areas have been unified through the international rules and standards developed by IMO, particularly the mandatory Polar Code that applies to both the Arctic and the Antarctic.[257] The Polar Code covers the full range of CDEM,

[250] Viatcheslav Gavrilov, Roman Dremliuga and Rustambek Nurimbetov, 'Article 234 of the 1982 United Nations Convention on the Law of the Sea and Reduction of Ice Cover in the Arctic Ocean' (2019) 106 Marine Policy 103518.

[251] Christopher C. Joyner, 'Ice-Covered Regions in International Law' (1991) 31 Nat Res J 213, 217.

[252] Nordquist, Rosenne and Yankov (1991) 392–393; Erik Franckx and Laura Boone, 'Article 234', in Proelss (2017) 1569.

[253] UNCLOS Article 234; IMO MEPC 43/6/2 para 14.

[254] Nordquist, Rosenne and Yankov (1991) 393; Franckx and Boone (2017) 1569–1570.

[255] Canada, Arctic Waters Pollution Prevention Act, RSC 1985, c A-12 (AWPPA); Canada, Arctic Shipping Pollution Prevention Regulations, CRC, c 353 (ASPPR) [Repealed, SOR/2017-286, s 34].

[256] Canada, AWPPA ss 11–12; Canada, ASPPR ss 4–6, 12–13, 26.

[257] IMO, 'International Code for Ships Operating in Polar Waters (Polar Code)' www.imo.org/en/OurWork/Safety/Pages/polar-code.aspx.

operational, training, search and rescue, and environmental protection matters relevant to ships operating in the inhospitable polar waters.[258] The Polar Code has been made mandatory through amendments to MARPOL and other relevant conventions.[259] Despite being without the official title, the Polar Code effectively designated Arctic Waters as a Special Area under MARPOL with special mandatory measures for the prevention of pollution.[260] Another contribution of the Polar Code is a generally agreed geographic scope of Arctic Waters, in contrast to the different interpretations of 'within the limits' of the EEZ and covered by ice 'most of the year' under Article 234.[261] With the entry into force of the Polar Code in 2017, the three major coastal States in the Arctic – Canada, Russia and the United States – all amended their domestic legislations to enhance their compatibility with these international rules and regulations.[262]

In sum, these specially protected areas, once duly designated, must be respected by all applicable vessels navigating through or within these areas. The rationale for giving such competence is to protect the coastal State's special interests in the EEZ and to assist it in fulfilling its obligation to protect and preserve the marine environment. However, both the designation of the area and the adoption of special protective measures, though initiated by the coastal State, need to be approved by IMO except for ice-covered areas. These procedural requirements confirm the superior status of the generally accepted international rules and standards in relation to environmental protection in the EEZ.

[258] IMO Res MEPC.264(68), 15 May 2015, International Code for Ships Operating in Polar Waters (Polar Code).

[259] IMO Res MEPC.265(68), 15 May 2015, Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, Amendments to MARPOL Annexes I, II, IV and V (to make use of environment-related provisions of the Polar Code mandatory).

[260] Roach (2021) 586–587.

[261] IMO Res MEPC.265(68), MARPOL Annex I, reg 46.2; Annex II, reg 21.2; Annex IV, reg 17.3; Annex V, reg 13.2; Franckx and Boone (2017) 1575–1578.

[262] Canada, Arctic Shipping Safety and Pollution Prevention Regulations, SOR/2017-286; Jan Jakub Solski, 'The Northern Sea Route in the 2010s: Development and Implementation of Relevant Law' (2020) 11 Arctic Rev on L & Pol 383, 390; Drummond Fraser, 'A Change in the Ice Regime: Polar Code Implementation in Canada', in Aldo Chircop, Floris Goerlandt, Claudio Aporta and Ronald Pelot (eds.), *Governance of Arctic Shipping: Rethinking Risk, Human Impacts and Regulation* (Springer 2020) 296–297; Roach (2021) 589–599; Sian Prior, 'Review of Perceived Gaps and Challenges in the Implementation of the Polar Code' (WWF's Arctic Programme 2022) https://apiwwfarcticse.cdn.triggerfish.cloud/uploads/2022/04/12144330/22-4372_polar_code_220408_links-3.pdf.

4.3.2.3 Pollution from Seabed Activities and by Dumping

The coastal State's jurisdiction to protect and preserve the marine environment extends to two further activities, seabed activities including the use of artificial islands, installations and structures subject to national jurisdiction, and dumping. The coastal State has a broader scope of prescriptive jurisdiction over these two activities compared to its jurisdiction over vessel-source pollution.

Most, if not all, seabed activities including the use of artificial islands, installations and structures are connected with the exploration of the seabed and exploitation of its natural resources that are subject to the sovereign right of the coastal State.[263] Within the EEZ, the most common activities are connected with the exploration and exploitation of oil and gas, which may give rise to both intentional and accidental pollution.[264] The coastal State also has jurisdiction to prevent, reduce and control pollution from pipelines that are not associated with an activity under its jurisdiction.[265] The coastal State is obliged to take all necessary measures to prevent, reduce and control pollution from the offshore activities subject to its jurisdiction with the constraint that such laws, regulations and measures must be 'no less effective than international rules, standards and recommended practices and procedures'.[266] As at 2024, States have not developed any binding international agreement to regulate pollution from these offshore activities.

Dumping within the EEZ is subject to the prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration with other relevant States.[267] The laws, regulations and measures adopted by the coastal State must be 'no less effective in preventing, reducing and controlling such pollution than the global rules and standards'.[268] The 1972 London Convention and 1996 London Protocol, which have been accepted by 87 and 53 contracting parties, respectively, are the only global treaties regulating dumping at sea.[269]

[263] UNCLOS Articles 56(1), 77(1).
[264] Churchill, Lowe and Sander (2022) 682.
[265] UNCLOS Article 79(2). For activities related to the laying of submarine pipelines, see Chapter 5 in this volume.
[266] UNCLOS Article 208(1)–(3).
[267] UNCLOS Article 210(5).
[268] UNCLOS Article 210(6).
[269] Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (29 December 1972, in force 30 August 1975) 1046 UNTS 120 (London Convention); 1996 Protocol to the London Convention (7 November 1996, in force

Any foreign ships or aircraft that have obtained approval from the coastal State to engage in seabed activities or dumping in its EEZ are subject to the coastal State's environmental regulations. Compared with the coastal State's jurisdiction over vessel-source pollution, the reference to 'international rules' and 'global rules and standards' is not subject to the requirement that they have been 'generally accepted'. This arguably widens the scope of the applicable global rules and standards. Nonetheless, the coastal State's jurisdiction to regulate pollution from seabed activities and dumping is less likely to directly affect the freedom of navigation and overflight in the EEZ. In the event of an accidental pollution incident, such as the 2009 Montara oil spill and the 2010 Deepwater Horizon accident, ships might need to alter their navigation route to avoid an area.[270]

4.3.3 *Enforcement Jurisdiction*

It should be acknowledged that the enforcement provision in Article 73 of UNCLOS refers only to the exercise of coastal State's 'sovereign rights to explore, exploit, conserve and manage the living resources'. The coastal State's explicit enforcement jurisdiction[271] over the protection and preservation of the marine environment is provided in Part XII. Such jurisdiction is framed around the primary subject, namely ships and aircraft, including those flying foreign flags.

It is significant that coastal States are given enforcement jurisdiction over vessel-source pollution in the EEZ. This represents an attempt to respond to the ineffectiveness of a regime based on exclusive flag State enforcement over such an issue.[272] Following the limited scope of the prescriptive jurisdiction, the coastal State may only enforce those environmental laws 'conforming to and giving effect to generally accepted

24 March 2006) (London Protocol); IMO, 'Convention on the Prevention of Polllution by Dumping of Wastes and Other Matter' www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx.

[270] Australian Government, Department of Climate Change, Energy, the Environment and Water, 'Montara Oil Spill' www.dcceew.gov.au/environment/marine/marine-pollution/montara-oil-spill; Julien Rochette, Matthieu Wemaëre, Lucien Chabason and Sarah Callet, Seeing beyond the Horizon for Deepwater Oil and Gas: Strengthening the International Regulation of Offshore Exploration and Exploitation (IDDRI Studies N° 01/14 2014).

[271] Activities that intentionally cause severe damage to the marine environment has been considered as threat to maritime security, see Chapter 7 in this volume.

[272] Nordquist, Rosenne and Yankov (1991) 282.

international rules and standards' established through IMO or general diplomatic conference.[273] Coastal States are given a graded enforcement competence depending on the amount of the discharge and the perceived or anticipated severity of the damage to the marine environment. As clearly stated in Article 111, the right of hot pursuit applies to violations of environmental laws and regulations in the EEZ.[274]

If the coastal State has 'clear grounds for believing' that the vessel has committed a violation of applicable laws and regulations in its EEZ, the first step in exercising enforcement jurisdiction is to require the suspected foreign vessel navigating in the EEZ or the territorial sea to give information about its identity and other relevant information.[275] Second, if the vessel has failed to provide such information and the coastal State has 'clear grounds for believing' that there is danger of such violation 'resulting in a substantial discharge causing or threatening significant pollution of the marine environment', it may conduct physical inspection of the vessel for matters relating to the violation.[276] Third, if the inspection leads to 'clear objective evidence' that the violation will result in 'a discharge causing major damage or threat of major damage to the coastline or related interests of the coastal State, or to any resources of its territorial sea or [EEZ]', the coastal State may, 'provided that the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws'.[277] These enforcement measures apply to violations of 'applicable international rules and standards for the prevention, reduction and control of pollution from vessels or laws and regulations of that State conforming and giving effect to such rules and standards'.[278] The word 'or' seems to indicate that the coastal State could exercise enforcement jurisdiction over violations of applicable international rules and standards even if it has not adopted domestic laws to implement them. These would include violations of CDEM standards, discharge and emission control, ships' routeing systems, other operational practices, as well as protective measures applicable to specially protected areas. The three progressive steps of enforcement measures by the coastal State, each qualified by an increased level of threat to the

[273] UNCLOS Article 211(5).
[274] UNCLOS Article 111(2).
[275] UNCLOS Article 220(3).
[276] UNCLOS Article 220(5).
[277] UNCLOS Article 220(6).
[278] UNCLOS Article 220(3).

marine environment, will have an increasing impact on the freedom of navigation if the foreign vessel has committed a violation in the EEZ.

It is worth noting that within ice-covered areas the coastal State is given a wide margin of discretion of enforcement jurisdiction, in contrast to its limited competence with regard to specially protected areas established under UNCLOS Article 211(6), MARPOL or the PSSA.[279] As indicated in the Canadian Arctic Waters Pollution Prevention Act, a pollution prevention officer may 'board any ship that is within a shipping safety control zone and conduct such inspections thereof as will enable the officer to determine whether the ship complies with standards prescribed by any regulations' that are applicable in such a zone and may order the ship to proceed outside the zone on reasonable grounds.[280] Violations under the Act are punishable offences, and the suspected person and ship are liable to pay a fine on summary conviction.[281] However, this broader competence needs to be exercised in accordance with the coastal State's due regard obligation and the other general requirements applied in the process of enforcement activities, such as acting in a non-discriminatory, reasonable, proportionate and non-abusive manner.[282] For example, the coastal State may only take actions based on clear, or at least reasonable, grounds for believing that a foreign vessel has acted in contravention of its applicable laws or regulations and must avoid causing unnecessary interference with the vessel.

In addition to their general enforcement jurisdiction, coastal States also have the right to take and enforce proportionate measures to avoid pollution arising from accidental discharge due to maritime casualties in the EEZ.[283] The supertanker *Torrey Canyon*, after running aground on rocks outside the territorial sea of the United Kingdom in 1967, caused devastating environmental effects and was eventually bombed by the Royal Navy to avoid further damage.[284] At that time, the United Kingdom had no right to intervene with foreign vessels on the high seas, but it claimed to act according to the right of self-protection or self-help

[279] UNCLOS Articles 220(8), 234.
[280] Canada, AWPPA s 15(4).
[281] Ibid ss 18–19.
[282] UNCLOS Articles 226, 300.
[283] UNCLOS Article 221. 'Maritime casualty' means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.
[284] Marine Management Organisation, 'Torrey Canyon 1967' https://webarchive.nationalarchives.gov.uk/ukgwa/20140305104626/http://www.marinemanagement.org.uk/protecting/pollution/incidents_torreycanyon.htm (archived content).

under general law, whereby a State, when one of its vital interests is affected or is likely to be affected by certain events, can respond with extreme measures.[285] This incident inspired the adoption of the 1969 Intervention Convention, which permitted the coastal State to take actions against foreign vessels on the high seas as 'may be necessary to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil or other substances or the threat thereof, following upon a maritime casualty'.[286] This practice has been incorporated into Article 221 of UNCLOS, which permits the coastal State, subject to other rules of international law, to 'take and enforce measures' in the EEZ 'proportionate to the actual or threatened damage' to avoid pollution or threat of pollution arising from maritime causalities.[287]

UNCLOS also lays down detailed procedural and other safeguards to ensure that the freedom of navigation in the EEZ is not unduly restricted from enforcement jurisdiction by the coastal State.[288] There are general obligations of coastal States to take measures to facilitate proceedings, to exercise their enforcement powers through qualified government entities or officials, to avoid endangering the safety of navigation or human lives, to refrain from discrimination against foreign vessels, to duly notify the flag State and other States concerned, to limit itself to monetary penalties and to be liable for damages arising from improper enforcement measures.[289]

In addition, there are essential safeguards that reflect the dominant interests of the freedom of navigation over the environmental jurisdiction of the coastal State. Article 226 spells out the main procedures for investigating foreign vessels to minimise unnecessary physical inspection.[290] The initial physical inspection provided in Article 220(3) 'shall be limited to an examination of such certificates, records or other documents as the vessel is required to carry' by international law.[291] Further inspection is only permitted when 'there are clear grounds for believing' that these documents are misleading or when they are inadequate or

[285] Tan (2006) 70; Nordquist, Rosenne and Yankov (1991) 305; James Crawford, *Brownlie's Principles of Public International Law* (9th ed., Oxford University Press 2019) 446, 463–464.
[286] International Convention relating to Intervention on the High Seas in cases of Oil Pollution Casualties (29 November 1969, in force 6 May 1975) 970 UNTS 211 (Intervention Convention). Nordquist, Rosenne and Yankov (1991) 305–306.
[287] UNCLOS Article 221(1).
[288] Nordquist, Rosenne and Yankov (1991) 321.
[289] UNCLOS Articles 223–225, 227, 230–232.
[290] Vasco Becker-Weinberg, 'Article 226', in Proelss (2017) 1539.
[291] UNCLOS Article 226(1)(a).

invalid.[292] Where the violation is confirmed and the vessel is accordingly detained, coastal States are obliged to release it promptly upon the posting of a bond or other financial security.[293] However, if the release of the vessel may pose an unreasonable threat of damage to the marine environment, the coastal State may refuse or make its release conditional upon appropriate repair.[294] Additionally, States are required to cooperate to develop detailed investigation procedures to avoid unnecessary inspection of vessels at sea, which is intended to limit the power of coastal States to apply domestic laws.[295]

Furthermore, Article 228 implies that the disciplinary action imposed by a coastal State in response to a violation relating to vessel-source pollution in its EEZ can be overridden by instituting a flag State proceeding.[296] The flag State has the right to request such suspension within six months of the date on which the coastal State instituted the proceedings, and is obliged to disclose its proceedings to the coastal State in due course.[297] However, if the violation has caused 'major damage to the coastal State' or the flag State has 'repeatedly disregarded' its enforcement obligation, the privilege of the flag State does not stand.[298] The reference to 'major damage' echoes Article 220(6) but has not been elaborated, and it is also not clear what actions would constitute 'repeatedly disregarded' behaviour, which leaves ample room for differing interpretations.[299] The coastal State is barred from instituting proceedings to impose penalties on foreign vessel if the flag State has taken corresponding charges, or after three years since the violation was committed.[300] Article 228 indicates the clear intention to give priority to flag State jurisdiction over vessel-source pollution.[301]

It is recognised that the increasing volume of shipping traffic poses a serious threat to the coastal marine environment and may cause irreversible damage to marine habitats and fragile ecosystems. Consequently, there is growing awareness of the need to prevent, reduce and control

[292] UNCLOS Article 226(1)(a)(i)–(iii).
[293] UNCLOS Article 226(1)(b).
[294] UNCLOS Articles 219, 226(1)(c).
[295] UNCLOS Article 226(2); Nordquist, Rosenne and Yankov (1991) 344.
[296] UNCLOS Article 228(1).
[297] Ibid.
[298] Ibid.
[299] Nordquist, Rosenne and Yankov (1991) 358–359; Jean-Pierre Cot, 'Pollution in the EEZ' (2010) 104 Am J Int'l L 265, 266, 270.
[300] UNCLOS Article 228(1).
[301] Nordquist, Rosenne and Yankov (1991) 358; Vasco Becker-Weinberg, 'Article 228', in Proelss (2017) 1548.

vessel-source pollution.[302] UNCLOS has, in fact, altered the exclusive jurisdiction of flag States in respect of vessel-source pollution, but the concurrent jurisdiction granted to the coastal State is onerous and retrospective and does not substantially encroach upon international navigation.[303] It has been pointed out that this is the most complex modification to the regime governing the coastal State and other States in the exercise of their rights and jurisdiction.[304] Freedom of navigation is further protected by ensuring uniformity of applicable international rules and standards, which are the normal limit of coastal State competence.[305] In addition, State practice, although limited, indicates that most coastal States have only made a general claim to environmental jurisdiction in the EEZ and few of them have enacted specific domestic laws, let alone undertaken enforcement actions.[306] These situations perhaps reflect the predominance of internationalism over unilateralism and navigational interests over coastal States' environmental concerns in the EEZ. Nevertheless, the marginal coastal State jurisdiction provides extra protection to its coastal marine environment and may pressure flag States to enhance compliance by their vessels with applicable international rules and standards. As IMO has been pushed by States to adopt initiatives to address vessel-source pollution, coastal States' prescriptive jurisdiction should gradually expand in the EEZ through the implementation of international rules and standards.[307]

4.4 Rights and Jurisdiction with Regard to Artificial Islands, Installations and Structures

4.4.1 General Scope of Coastal State Rights

Similar to the regime of protection and preservation of the marine environment, coastal States only have 'jurisdiction' to establish and use

[302] Lindy S. Johnson, *Coastal State Regulation of International Shipping* (Oceana Publications 2004) 17–19.

[303] Bartenstein 'Article 211' (2017) 1434; Yaodong Yu, Yue Zhao and Yen-Chiang Chang, 'Challenges to the Primary Jurisdiction of Flag States Over Ships' (2018) 49(1) Ocean Dev & Int'l L 85, 93–95.

[304] Orrego Vicuña (1989) 84.

[305] UNCLOS Articles 56(1)(b)(iii), 211(5), 220(3).

[306] Molenaar (1998) 398–399; Shotoro Hamamoto, 'Article 220', in Proelss (2017) 1511–1512.

[307] Tim Stephens and Donald R. Rothwell, 'The LOSC Framework for Maritime Jurisdiction and Enforcement 30 Years On' (2012) 27 Int'l J Marine & Coastal L 701, 705.

artificial islands, installations and structures in the EEZ, which is a narrower concept than 'sovereign rights'.[308] The exercise of such jurisdiction is elaborated in Article 60, which addresses it in two formulations. In the first place, coastal States have the 'exclusive right to construct and to authorize and regulate the construction, operation and use of artificial islands' and of 'installations and structures for the purposes provided for in Article 56 and other economic purposes' or those 'which may interfere with the exercise of the rights of the coastal State in the zone'.[309] In the second place, coastal States have 'exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations'.[310] Moreover, the coastal State has jurisdiction over marine scientific research in the EEZ, thus the deployment and use of any type of scientific research installation or equipment are subject to the coastal State's jurisdiction.[311] Furthermore, as discussed earlier, the coastal State has the jurisdiction to prevent, reduce and control pollution from seabed activities including the use of artificial islands, installations and structures under their jurisdiction.[312] These rights and jurisdiction apply *mutatis mutandis* to the artificial islands, installations and structures built in and upon the continental shelf.[313]

The three categories of infrastructures are broad enough to cover broadcasting facilities, deep-water ports, offshore airports, offshore surveillance structures, seabed drilling platforms and other exploitation facilities, scientific research installations and even almost self-contained industrial towns.[314] Article 60 distinguishes artificial islands from installations and structures, with the former falling under the exclusive right and jurisdiction of the coastal State while the latter are subject to certain qualifications. However, UNCLOS does not provide any definition of the three terms, which renders the distinction difficult to determine, as an installation or structure could eventually be assimilated into an artificial island.[315] Except for the common feature of having to be human-made

[308] UNCLOS Article 56(1)(a) and (b)(i); Proelss 'Article 56' (2017) 424–425, 429.
[309] UNCLOS Article 60(1).
[310] UNCLOS Article 60(2).
[311] UNCLOS Articles 56(1)(b)(ii), 246(1), 258.
[312] UNCLOS Articles 208, 214; Nordquist, Nandan and Rosenne (1993) 588.
[313] UNCLOS Article 80.
[314] Kwiatkowska (1989) 104; Kent M. Keith, 'Floating Cities: A New Challenge for Transnational Law' (1977) 1 Marine Policy 190, 201–204.
[315] Churchill, Lowe and Sander (2022) 267–268.

objects, it seems that the main criteria for differentiation the three terms are size and permanency, and possibly the method of construction.[316]

One consequence of the lack of definitions is that the legal status of floating platforms and other structures in the EEZ, which can move by their own power but will become stable once they reach the operation site, is not entirely clear.[317] At the early stage of the negotiations, Belgium and the United States proposed to exclude floating artificial islands from coastal States jurisdiction because they were 'theoretically mobile' and could be 'treated as vessels'.[318] This proposal was rejected, as both scientific evidence and State practice support the conclusion that floating structures operate in different ways from ships.[319] However, the definition of ships adopted in some IMO instruments includes floating platforms except when they are on location engaged in seabed activities.[320] Under Canadian law, at least some floating structures are included in the definition of 'marine installation or structure'.[321] Based on the fact that they are mainly used for economic purposes or scientific research in the EEZ, it is plausible to treat floating structures as artificial islands, installations or structures under Article 60, especially when they become stationary and operate in one particular area.[322]

Although Article 60 limits coastal States' rights with regard to specific installations and structures, it leaves coastal States with broad discretion to decide the scope of their jurisdiction. When referring to 'other economic purposes', in addition to those provided in Article 56, which

[316] UN DOALOS, *The Law of the Sea: Baselines* (United Nations 1989), Appendix I: Consolidated Glossary of Technical Terms used in the United Nations Convention on the Law of the Sea, 56; Alex G. Oude Elferink, 'Artificial Islands, Installations and Structures', last updated September 2013 *Max Planck Encyclopedia of Public International Law: South China Sea Arbitration* (2016) paras 996–1009, 1036–1037.

[317] Kwiatkowska (1989) 108; Churchill, Lowe and Sander (2022) 266.

[318] Shigeru Oda, *The Law of the Sea in Our Time II: The United Nations Seabed Committee, 1968–1973* (Sijthoff Leyden 1977) 359.

[319] Kwiatkowska (1989) 108; Hayley Farr, et al., 'Potential Environmental Effects of Deepwater Floating Offshore Wind Energy Facilities' (2021) 207 Ocean and Coastal Management 105611.

[320] MARPOL Article 2(4); BWM Convention Article 1(12).

[321] Canada, Oceans Act, Article 2: 'marine installation or structure' includes (a) any ship and any anchor, anchor cable or rig pad used in connection therewith, (b) any offshore drilling unit, production platform, subsea installation, pumping station, living accommodation, storage structure, loading or landing platform, dredge, floating crane, pipelaying or other barge or pipeline and any anchor, anchor cable or rig pad used in connection therewith, and (c) any other work or work within a class of works prescribed pursuant to paragraph 26(1)(a).

[322] Kwiatkowska (1989) 108–109; Alexander Proelss, 'Article 60', in Proelss (2017) 470.

already includes 'other activities for the economic exploitation and exploration', Article 60 indicates that it is 'a matter that can also influence the assignment of residual rights' under Article 59.[323] It has been argued that the exclusion of installations and structures for non-economic purpose from coastal States' exclusive rights represents a successful effort to exempt installations and structures used for military purposes.[324] However, the coastal State may still argue that such installations or structures 'may interfere [with] the exercise of' its rights on a case-by-case basis. This again will affect the interpretation and application of Article 59, as it gives a clear preference for the coastal State to decide which non-economic installations and structures will be subject to its jurisdiction.[325] Therefore, most installations and structures that may possibly be erected within the EEZ, including those used for scientific research projects, are subject to the coastal State's exclusive authority.[326]

Coastal States can exercise 'exclusive jurisdiction' over such artificial islands, installations and structures 'with regard to customs, fiscal, health, safety and immigration laws and regulations'.[327] Consequently, no vessels may load or unload any commodity, currency or person onto these infrastructures without coastal State authorisation. It would thus follow that coastal States should have criminal jurisdiction with regard to offences committed on or against such artificial islands, installations and structures.[328] According to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (SUA Platforms Protocol), coastal States may criminalise offences of unlawful seizures or exercises of control over a fixed platform, or performance of violence against a person on board, or any other activities that may endanger its safety.[329] The exclusive jurisdiction is particularly important considering the growing size and capacities of such infrastructure used within the EEZ.

Many States have claimed exclusive right and jurisdiction over artificial islands, installations and structures in the EEZ by incorporating the

[323] UNCLOS Articles 56 (1)(a), 60(1)(b); Orrego Vicuña (1989) 74.
[324] Nordquist, Nandan and Rosenne (1993) 584–585; Proelss 'Article 60' (2017) 471. For military installations, structures and other devices, see Chapter 6 in this volume.
[325] Proelss 'Article 60' (2017) 472.
[326] UNCLOS Article 246(5)(c).
[327] UNCLOS Article 60(2).
[328] Nordquist, Nandan and Rosenne (1993) 585; Proelss 'Article 60' (2017) 473.
[329] Protocol of 2005 to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (14 October 2005, in force 28 July 2010) 1678 UNTS 304, Articles 2–3.

general scope of Article 56 into their domestic laws, with few of them including the detailed rules of Article 60.[330] It is noteworthy that Brazil,[331] Cambodia,[332] Guyana,[333] India,[334] Indonesia,[335] Myanmar,[336] Pakistan[337] and Sri Lanka[338] have specified that their rights and jurisdiction extend to artificial islands, installations and structures for any purposes. It is also interesting to note that Honduras,[339] Maldives,[340] Mauritius,[341] the Seychelles[342] and Vanuatu[343] have retreated from their excessive claims and have amended their domestic laws to be consistent with UNCLOS.

[330] Kwiatkowska (1989) 113–115; Robert W. Smith, *Exclusive Economic Zone Claims: An Analysis and Primary Documents* (Martinus Nijhoff 1986) 35–37; UN DOALOS, *The Law of the Sea: National Legislation on the Exclusive Economic Zone*; Sophia Kopela, 'The "Territorialisation" of the Exclusive Economic Zone: Implications for Maritime Jurisdiction' (2009) 6–7, in 20th Anniversary Conference of the International Boundary Research Unit on 'The State of Sovereignty'; 1–3 April 2009, Durham, UK. (Unpublished).

[331] Brazil, Law No.8.617 of 4 January 1993, on the Territorial Sea, the Contiguous Zone, the Exclusive Economic Zone and the Continental Shelf, Article 8, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/BRA_1993_8617.pdf.

[332] Cambodia, Decree of the Council of State of 13 July 1982, Article 6, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/KHM_1982_Decree.pdf.

[333] Guyana, Maritime Boundaries Act No. 10 of 30 June 1977, Articles 16(b), 17.

[334] India, The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, Article 7(4)(b).

[335] Indonesia, Act No. 5 of 1983 on the Indonesian Exclusive Economic Zone, Article 6, www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/IDN_1983_Act.pdf.

[336] Myanmar, Territorial Sea and Maritime Zones Law, 1977, Article 18(b), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/MMR_1977_Law.pdf.

[337] Pakistan, Territorial Waters and Maritime Zones Act, 1976, Article 6(2)(b).

[338] Sri Lanka, Maritime Zones Law No. 22 of 1976, Article 5(3)(c).

[339] Honduras, Decree No. 921 of 13 June 1980 on the Utilization of Marine Natural Resources, Article 1(b); Maritime Areas of Honduras Act – Legislative Decree 172-99, 30 October 1999, Article 7(3)(a), www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/HND.htm.

[340] Maldives, Law No. 30/76 Relating to the EEZ, Article 2; Maritime Zones of Maldives Act No. 6/96, Article 9, www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/MDV.htm.

[341] Mauritius, Maritime Zones Act No. 13 of 1977, Article 7(b); Maritime Zone Act 2005, Articles 15(1)(b)(i), 17(d). However, Article 16(2) also emphasises that 'the law of Mauritius shall apply to artificial islands, installations and structures in the EEZ as if they were in the territorial sea', www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/MUS.htm.

[342] Seychelles, Maritime Zones Act 1977, Article 7(1)(b); Maritime Zones Act 1999, Article 10 (b)–(d), www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/SYC.htm.

[343] Vanuatu, Maritime Zones Act No. 23 of 1981, Article 10(b), UN DOALOS, National Legislation on the EEZ, 393; Maritime Zones Act No. 6 of 2010, Article 10(2)(a), www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/vut_2010_Act06.pdf.

4.4.2 *Safety Zones*

In order to protect the safety of both navigation and the artificial islands, installations and structures, where necessary, the coastal State may establish reasonable safety zones around such infrastructure and take appropriate measures.[344] Coastal States have the independent right to establish these safety zones in contrast to other specially protected areas in the EEZ that have to be approved by IMO. This leaves coastal States broad discretionary power to decide when it is necessary to establish, and how to justify the reasonableness, of the safety zones.

The coastal State's rights are, nevertheless, subject to a number of constraints. Coastal States must determine the breadth of safety zones 'taking into account applicable international standards'.[345] 'Taking into account' is a rather vague requirement and much less demanding than 'conforming to and giving effect to generally accepted international rules and standards' used to limit the coastal State's jurisdiction over vessel-source pollution.[346] The designation of safety zones must be 'reasonably related to the nature and function of the artificial islands, installations or structures', and the breadth 'shall not exceed a distance of 500 meters around them, . . . except as authorised by generally accepted international standards or as recommended by the competent international organization'.[347] Where the installations are used for scientific research, the breadth must not exceed a distance of 500 metres with no exceptions.[348]

Coastal States may 'take appropriate measures' to ensure safety of both navigation and the infrastructure within the safety zones 'in the nature of the enactment of laws or regulations, and of the enforcement of such laws and regulations'.[349] Although UNCLOS does not indicate which measures may be considered appropriate, it requires all ships to 'comply with generally accepted international standards regarding navigation in the vicinity of artificial islands, installations and structures and safety zones'.[350] This seems to limit these 'appropriate measures' to those adopted by IMO or other international conferences regarding the safety of navigation. These measures may include ships' routeing systems, ship

[344] UNCLOS Article 60(4).
[345] UNCLOS Article 60(5).
[346] UNCLOS Article 211(5).
[347] UNCLOS Article 60(5); Proelss 'Article 60' (2017) 477.
[348] UNCLOS Article 260.
[349] UNCLOS Article 60(4); Arctic Sunrise Arbitration para 211.
[350] UNCLOS Article 60(6).

reporting systems, vessel traffic services, navigational aids, automatic identification systems, long-range identification and tracking system, pilotage and other operational measures for shipping.[351] Foreign vessels are required to respect the applicable measures, to navigate with caution and, where appropriate, to take precautionary actions when approaching such infrastructure or safety zones.[352] It is not completely clear, however, whether the coastal State may extend its entire jurisdiction applicable to the safety zones to include customs, fiscal, health, immigration and environmental regulations.[353]

4.4.3 Safeguards

UNCLOS confers extensive authority on coastal States to establish and use artificial islands, installations and structures and safety zones for economic purposes. Given that the existence of these offshore infrastructures will have an impact on the navigational freedoms, it is important that coastal States exercise such rights and jurisdiction in a non-abusive manner and have due regard to other States' rights and freedoms.[354] These general obligations are strengthened by detailed procedural requirements and safeguards, particularly with respect to the preservation of the freedom of navigation. As State practice stands, the height of most offshore infrastructures do not pose a major threat to the freedom of overflight.

First of all, coastal States must give 'due notice' of the construction of any artificial islands, installations and structures.[355] The 'due notice' is only relevant to the 'construction' of the infrastructure and serves to notify other States of the intention of the coastal State to begin the construction process.[356] The notice should be given in the format of notices to mariners, radio warnings and markings on all appropriate navigational charts.[357] It is not clear how far in advance the coastal State should give such notice, but it should be before the actual

[351] SOLAS, Chapter V: 'Safety of Navigation'; IMO, 'Safety of Navigation' www.imo.org/en/OurWork/Safety/Pages/NavigationDefault.aspx.
[352] IMO Res A.671(16), 19 October 1989, Safety Zones and Safety of Navigation around Offshore Installations and Structures, Annex, Article 2.
[353] Proelss 'Article 60' (2017) 476–477.
[354] Nordquist, Nandan and Rosenne (1993) 587; UNCLOS Articles 56(2), 60(4), 300.
[355] UNCLOS Article 60(3).
[356] Proelss 'Article 60' (2017) 473.
[357] IMO Res A.671(16) Annex, Articles 1(1), 4(2), 5.

construction take place. The coastal State is also not under an obligation to consult with other States regarding the impending location or construction of such infrastructure.

Secondly, the construction of such infrastructure and the establishment of the safety zones around them 'may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation'.[358] However, the tentative word 'may' indicates that, where necessary, a coastal State could still establish such infrastructure and the safety zones around them, even if interference is caused. Moreover, the rigid requirements of 'recognized' and 'essential' imply that when normal sea lanes are not recognised as essential to international navigation, or even when there are alternative sea lanes which can be used, interference is permissible. This interpretation of the limited effect of such a requirement is reaffirmed by the more stringent language used in relation to scientific research installations in the EEZ, where they 'shall not constitute an obstacle to established international shipping routes'.[359] In practice, in order to avoid potential interruption to navigation, IMO calls on coastal States to study the pattern of shipping traffic through the intended exploration areas to avoid serious obstruction of sea approaches or shipping routes.[360]

Thirdly, coastal States must maintain 'permanent means for giving warning of their presence'.[361] Installations or equipment used for scientific research in the EEZ must have 'adequate internationally agreed warning signals to ensure safety at sea'.[362] The permanent means are generally implemented by using navigational marks and lights.

Lastly, any abandoned or disused installations or structures

> shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States.[363]

This obligation is different from the strict rule contained in the 1958 Convention on the Continental Shelf whereby 'any installations

[358] UNCLOS Article 60(7).
[359] UNCLOS Article 261.
[360] IMO Res A.671(16) Preamble, para 1(a); Proelss 'Article 60' (2017) 478–479.
[361] UNCLOS Article 60(3).
[362] UNCLOS Article 262.
[363] UNCLOS Article 60(3).

which are abandoned or disused must be entirely removed'.[364] UNCLOS altered the complete removal requirement and left it to the coastal State (with generally accepted international standards in mind) to determine the extent of the removal of installations and structures in specific circumstances. As the competent international organisation, IMO has adopted guidelines to address these issues.[365]

The removal of abandoned or disused installations and structures must be based on consideration of 'any potential effect on safety of surface or subsurface navigation or of other uses of the sea', any potential effect on the marine environment, and any other advantages or disadvantages that may be caused by such removal.[366] If the structure is located in an area where higher traffic volume is anticipated in the future, or in the proximity of designated or customary sea lanes or port access routes, complete removal would be expected.[367] If it is located in 'approaches to or in straits used for international navigation or routes used for international navigation through archipelagic waters, in customary deep-draught sea lanes, or in, or immediately adjacent to, routeing systems', then it should be entirely removed with no exceptions.[368] Also, if the structure is 'standing in less than 75m (or 100m if it was emplaced on the sea-bed on or after 1 January 1998) of water and weighing less than 4,000 tonnes in air, excluding the deck and superstructure, should be entirely removed', but it is subject to certain exceptions.[369] Such removal, entirely or partially, should be undertaken in the manner so as not to cause 'significant adverse effects upon navigation or the marine environment'.[370]

If an abandoned or disused installation or structure has not been entirely removed, a coastal State must give the depth, position and dimensions through appropriate publicity and clearly indicate such on nautical charts.[371] Coastal States are also required to monitor 'the accumulation and deterioration of material left on the sea-bed to ensure there

[364] Convention on the Continental Shelf Article 5(5).
[365] IMO Res A.672(16), 19 October 1989, Annex: Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone.
[366] Ibid Annex, Article 2.1.
[367] Ibid Annex, Article 2.2.
[368] Ibid Annex, Article 3.7.
[369] Ibid Annex, Articles 3.1–3.2, 3.4.
[370] Ibid Annex, Article 3.3.
[371] UNCLOS Article 60(3).

is no subsequent adverse impact on navigation, other uses of the sea or the marine environment'.[372]

4.4.4 *Enforcement Jurisdiction*

The counterpart of coastal State's exclusive right and jurisdiction over artificial islands, specific installations and structures is that other States have the mutual obligation of having due regard to the rights and duties of the coastal State and must comply with duly adopted domestic legislation.[373] The coastal State's enforcement jurisdiction is trigged when the requirements of hot pursuit are satisfied.[374] The coastal State's jurisdiction to enforce its legislation to implement the SUA Platforms Protocol follows the general enforcement jurisdiction contained in UNCLOS.

Compared with the three progressive steps of enforcement procedures over vessel-source pollution, it is not entirely clear what powers and competence coastal States may exercise following the hot pursuit. It could be argued that the coastal State may undertake boarding, inspection and detention of the suspected foreign vessel following a similar approach to that used for vessel-source pollution if justified by the circumstances.[375] Since these alleged violations mainly relate to the safety of navigation, the flag State's exclusive jurisdiction prevails over that of the coastal State, unless severe damage is caused to the infrastructure. IMO recommends that coastal States should first take actions to notify and provide evidence to the flag State of the infringement, and it is the latter's responsibility to take appropriate measures to ensure that suitable procedures are brought against the reported vessel.[376] This recommendation reflects the strong intention of preserving exclusive flag State jurisdiction over vessels with regard to infringement of safety zones in the EEZ.

In the *Arctic Sunrise Arbitration*, the tribunal considered that the coastal State may justify 'some form of preventive action against a vessel' if the circumstances 'give rise to a reasonable belief that the vessel may be involved in a terrorist attack on an installation or structure of the coastal State'.[377] If the coastal State has 'reasonable grounds to suspect' the vessel

[372] IMO Res A.672(16) Annex, Article 2.4.
[373] UNCLOS Articles 56(1)(b)(i), 58(3), 60(1)–(2).
[374] UNCLOS Article 111(1)–(2); Arctic Sunrise Arbitration para 244.
[375] UNCLOS Articles 73, 220, 228.
[376] IMO Res A.671(16) Annex, Article 3.
[377] Arctic Sunrise Arbitration para 314.

within the safety zone is engaged in terrorist offences against offshore infrastructure, it may take measures to board, seize and detain the vessel.[378]

The establishment and use of artificial islands, installations and structures, and the safety zones around them, will inevitably impede the freedom of navigation to some degree.[379] The framework proposed by Article 60 attempts to create a balance between the interests of the coastal State and other States. While interference with navigation is predictable, it is to be minimised and must be eliminated once such infrastructure or safety zones no longer serve the primary purpose for which they were originally established.[380]

4.5 Resolving Disputes Concerning the Navigational Freedoms

The dispute settlement mechanism contained in Part XV of UNCLOS provides further assurance that the delicate equilibrium of rights and duties established between the coastal State and other States will be respected in practice. Like all disputes concerning the interpretation and application of UNCLOS, State parties must settle their disputes concerning the navigational freedoms by any peaceful means chosen by them.[381] Where no settlement has been reached by the peaceful means of their choice, any party may submit such dispute to the court or tribunal having jurisdiction under UNCLOS Part XV, which are known as compulsory dispute settlement procedures.[382] In addition, an UNCLOS court or tribunal may also have jurisdiction over any disputes concerning the interpretation and application of other relevant international agreements related to the purposes of UNCLOS.[383] For example, both the London Protocol and RWC confer the UNCLOS court and tribunal jurisdiction over disputes regarding their interpretation and application.[384]

There are also special procedures and limitations applicable to disputes concerning the navigational freedoms in the EEZ. Article 297 introduces certain automatic limitations to the application of the compulsory dispute settlement procedures to disputes relating to the uses of the EEZ

[378] Arctic Sunrise Arbitration para 278.
[379] Churchill, Lowe and Sander (2022) 243, 268–269, 278.
[380] UNCLOS Article 60(3).
[381] UNCLOS Articles 279–280.
[382] UNCLOS Articles 281, 286–287.
[383] UNCLOS Article 288(2).
[384] London Protocol, Article 16; RWC Article 15.

that resemble the balance between the coastal State and other States.[385] Article 297 starts with an assertion of jurisdiction phrased in affirmative terms to include disputes that are subject to the compulsory dispute settlement procedures, and then exempts certain categories of disputes that touch upon important interests of the coastal State.

On the affirmed jurisdiction, it has been explicitly stated that disputes concerning the interpretation or application of provisions relating the navigational freedoms are subject to the compulsory dispute settlement procedures of Part XV.[386] This includes both when the coastal State allegedly has acted in contravention of the relevant provisions and when other States allegedly have acted in contravention of the relevant provisions of UNCLOS and duly adopted national laws and regulations.[387] In both *M/V Saiga (No.2)* and the *Arctic Sunrise Arbitration*, the applicants relied on Article 297(1) on matters relating to the freedom of navigation in the EEZ.[388]

In addition, the compulsory jurisdiction extends to disputes relating to when the coastal State allegedly acted in contravention of specified international rules and standards for the protection and preservation of the marine environment that are applicable to it.[389] This ensures that other States may challenge the coastal State's exercise of its environmental jurisdiction within the EEZ, including disputes relating to the contravention of rules and standards found in IMO instruments such as MARPOL or the London Convention.[390] In the *Chagos Marine Protected Area Arbitration*, the arbitral tribunal accepted jurisdiction based on the argument that the dispute in respect of the marine protected area (MPA) established by the United Kingdom relates to the preservation of the marine environment that falls under Article 297(1)(c).[391]

[385] Andrew Serdy, 'Article 297', in Proelss (2017) 1908–1909; Myron H. Nordquist, Shabtai Rosenne and Louis B Sohn (eds.), *United Nations Convention on the Law of the Sea 1982: A Commentary*, Vol. V (Martinus Nijhoff 1989) 105–106.

[386] UNCLOS Article 297(1)(a)–(b).

[387] Serdy 'Article 297' (2017) 1914–1916.

[388] M/V 'Saiga' (No. 2) (Saint Vincent and the Grenadines v. Guinea), Provisional Measures, Order of 11 March 1998, ITLOS Reports 1998, p. 24, para 30; In the Matter of the Arctic Sunrise Arbitration before an Arbitral Tribunal Constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea between the Kingdom of the Netherlands and the Russian Federation, Award on Jurisdiction, 26 November 2014, PCA Case No. 2014-02, paras 52, 61.

[389] UNCLOS Article 297(1)(c).

[390] Chagos MPA Arbitration, paras 321–322; Serdy 'Article 297' (2017) 1916.

[391] Chagos MPA Arbitration para 319.

It should be acknowledged that the list contained in Article 297(1) does not restrict an ITLOS court or tribunal from considering disputes concerning the exercise of sovereign rights and jurisdiction in other cases.[392] It would have rendered the following limitations to jurisdiction redundant if the ITLOS court or tribunal could only consider three types of cases relating to the exercise of sovereign rights and jurisdiction. Where a dispute concerns the interpretation or application of relevant provisions of the EEZ, and provided that the dispute is not subject to the express limitations set out in Article 297(2) and (3), jurisdiction for compulsory dispute settlement flows from the general provisions of Article 288(1).[393]

On the relevant limitations to jurisdiction, Article 297(3)(a) first confirms that disputes concerning the interpretation and application of the provisions with regard to fisheries shall be subject to compulsory dispute settlement procedures, then exempts certain categories of disputes in the EEZ. Coastal States are not obliged to accept the submission to such settlement procedures for disputes

> relating to its sovereign rights with respect to the living resources in the [EEZ] or their exercise, including its discretionary powers for determining the allowable catch, its harvesting capacity, the allocation of surpluses to other States and the terms and conditions established in its conservation and management laws and regulations.[394]

These disputes may be submitted to conciliation at the request of any party to the dispute if no settlement has been reached through other peaceful means chosen by the parties.[395] Article 298(1)(b) further permits the coastal State to opt out of the compulsory dispute settlement procedures with respect to 'disputes concerning law enforcement activities in regard to the exercise of sovereign rights or jurisdiction excluded from the jurisdiction of a court or tribunal' under Article 297(3). However, the coastal State's enforcement jurisdiction of its sovereign rights with respect to other economic activities and non-living resources falls outside the limitations of Article 297(3)(a) and therefore is subject to the compulsory dispute settlement procedures.[396]

[392] Ibid para 317.
[393] Ibid para 317.
[394] UNCLOS Article 297(3)(a).
[395] UNCLOS Article 297(3)(b).
[396] Arbitral Tribunal Constituted Pursuant to Article 287, and in Accordance with Annex VII, of the United Nations Convention on the Law of the Sea in the Matter of an

The effect of Articles 297(3)(a) and 298(1)(b), is not, however, to exclude all disputes relating to fisheries in the EEZ from the compulsory mechanism.[397] Disputes relating to fisheries that are not connected to sovereign rights granted to coastal States or their exercise are not exempted. For example, a dispute concerning the legality of imprisonment penalty for violations of fisheries laws in the EEZ could not be automatically excluded from the compulsory dispute settlement procedures.[398] When the implementation of conservation measures of the living resources unduly impair navigational freedoms, other States may also challenge the coastal State's actions.

In practice, a dispute often involves multiple elements of the rights and duties of the State parties involved. Therefore, how to characterise a dispute could play a crucial role in the application of the compulsory dispute settlement procedures. The *Chagos Marine Protected Area Arbitration* between Mauritius and the United Kingdom illustrates this point whereby the arbitral tribunal examined the 'far from clear' relationship between Article 297 paragraph 1 on the affirmation of jurisdiction and paragraph 3 on the limitations to jurisdiction.[399] The dispute relating to the establishment of a MPA around the Chagos Archipelago by the United Kingdom could cover both the marine environment and the coastal State's sovereign rights over the living resources and their exercise in the EEZ. After an examination of the scope of the MPA and the rights invoked by Mauritius, the arbitral tribunal came to the conclusion that the MPA reflected 'environmental concerns that extend well beyond the management of fisheries' and that the submission of Mauritius could not 'be excluded entirely by the exception from jurisdiction set out in Article 297(3)(a)'.[400] The arbitral tribunal considered that the dispute 'relates to the preservation of the marine environment and that Mauritius has alleged a violation of international rules and standards in this area', therefore the dispute is subject to the compulsory dispute settlement procedures asserted under Article 297(1)(c).[401]

Arbitration between Guyana and Suriname (Guyana v. Suriname), Award, 17 September 2007, PCA Case No. 2004-04, paras 413–416.

397 Nordquist, Rosenne and Sohn (1989) 105, 137.

398 UNCLOS Article 73(3); Serdy 'Article 297' (2017) 1909; P. Chandrasekhara Rao and Philippe Gautier, *The International Tribunal for the Law of the Sea: Law, Practice and Procedure* (Edward Elgar 2018) 95.

399 Chagos MPA Arbitration para 314; Chandrasekhara Rao and Gautier (2018) 95–96.

400 Chagos MPA Arbitration para 304.

401 Ibid para 319.

The application of Article 297 is subject to an additional safeguard, contained in Article 294, which restricts an UNCLOS court or tribunal from considering relevant disputes under certain circumstances. Article 294 permits a party to seek a preliminary determination, or by initiative of the court or tribunal to determine, in advance of other stages in the procedure concerning a dispute referred to in Article 297, as to 'whether the claim constitutes an abuse of legal process or whether *prima facie* it is well founded'.[402] If the claim constitutes an abuse of legal process or is *prima facie* unfounded, the court or tribunal should take no further action in the case.[403] The preliminary proceedings under Article 294 are independent from the general right of any party to a dispute to make preliminary objections to the jurisdiction of an UNCLOS court or tribunal.[404] Under the Rules of ITLOS, there are two provisions designed to implement these two specific procedures, namely preliminary proceedings and preliminary objections.[405] Objections to the jurisdiction of ITLOS based on Article 297 may also be dealt with under the more general procedure contained in preliminary objections which covers '[a]ny objection to the jurisdiction of the Tribunal or to the admissibility of the application'.[406]

In addition to the affirmed jurisdiction in Article 297, Arctic 292 establishes that the prompt release requirement is subject to a special compulsory dispute settlement procedure.[407] Where it is alleged that the coastal State has not complied with the relevant provisions for 'the prompt release of the vessel or its crew upon the posting of a reasonable bond or other financial security, the question of release from detention' may be submitted to ITLOS unless the parties have agreed otherwise.[408] Therefore, the right to bring a dispute before a court or tribunal about the detention of a foreign vessel is restricted to the cases expressly provided for in UNCLOS with respect to the enforcement of the living resources and environmental regulations.[409] The application for release

[402] UNCLOS Article 294(1); Churchill, Lowe and Sander (2022) 866–867.
[403] UNCLOS Article 294(1).
[404] UNCLOS Article 294(3); Pablo Ferrara, 'Article 294', in Proelss (2017) 1899.
[405] Rules of the Tribunal (ITLOS/8), adopted 28 October 1997, as amended, Articles 96, 97.
[406] Chandrasekhara Rao and Gautier (2018) 96, 233.
[407] Rainer Lagoni, 'The Prompt Release of Vessels and Crews Before the International Tribunal for the Law of the Sea: A Preparatory Report' (1996) 11(2) Int'l J Marine & Coastal L 147, 147; Tullio Treves, 'Article 292', in Proelss (2017) 1882.
[408] UNCLOS Article 292(1).
[409] UNCLOS Articles 73(2), 226(1)(b)–(c), 292(1); Nordquist, Rosenne and Sohn (1989) 69; Treves 'Article 292' (2017) 1885–1886.

may be made only by or on behalf of the flag State invoking its independent rights under UNCLOS, and the court or tribunal shall deal only with the question of release without prejudice to the merits of any case before the relevant domestic forum.[410] These obligations and proceedings are included to balance the interests of the detaining coastal State against that of the flag State in order to avoid an excessive detention of its vessels.[411] Up until 2024, 10 out of 30 contentious cases brought to ITLOS since it was established in 1996 were related to prompt release.[412] These cases have assisted in establishing the procedures and requirements of prompt release, particularly the criteria for assessing the reasonableness of bonds or other financial security, and providing judicial remedies for flag States to avoid unreasonable detention of their vessels.[413]

In sum, disputes concerning the basic navigational freedoms and the protection of the marine environment in the EEZ retain the complete protection of the compulsory dispute settlement procedures provided in Part XV. The main limitations to compulsory jurisdiction are disputes concerning the sovereign right and discretion of the coastal State over living resources and their exercise, which generally do not have a direct bearing on the exercise of the navigational freedoms.

4.6 Modified Freedoms in the Exclusive Economic Zone

Navigational freedoms have been a central concept of the law of the sea for hundreds of years, albeit increasing restrictions have more recently been imposed on them with the expansion of coastal State's rights.[414] The survey in this chapter illustrates that it is unavoidable that navigational freedoms be curtailed to some degree so as to accommodate coastal

[410] UNCLOS Article 292(2)–(3); Nordquist, Rosenne and Sohn (1989) 70–71; The 'Camouco' Case (Panama v. France), Prompt Release, Judgment of 7 February 2000, ITLOS Reports 2000, p. 10, para 58.

[411] 'Monte Confurco' Case paras 71–72; Donald R. Rothwell and Tim Stephens, 'Illegal Southern Ocean Fishing and Prompt Release: Balancing Coastal and Flag State Rights and Interests' (2004) 53(1) Int'l & Compar LQ 171, 183; 'Tomimaru' Case para 74; Churchill, Lowe and Sander (2022) 546–547.

[412] ITLOS, 'Contentious Cases' www.itlos.org/en/main/cases/contentious-cases/.

[413] M/V 'Saiga' Case para 82; 'Camouco' Case para 67; 'Monte Confurco' Case para 76; 'Volga' Case para 77; 'Juno Trader' Case para 85; 'Hoshinmaru' Case para 88.

[414] Maria Gavouneli, *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhoff 2007) 1–2.

States' sovereign rights and jurisdiction in the EEZ as compared to the traditional high seas freedoms.[415]

As far as the economic utilisation of the zone is concerned, particularly with respect to the living resources, the balance of the EEZ generally supports accepting a 'shift of emphasis in favour of the coastal State'.[416] State practice has also developed to allow coastal State to regulate navigation through their EEZs under certain circumstances based on their interactions with the exercise of the coastal State's sovereign rights and jurisdiction.[417] This is particularly noticeable with respect to activities that can be considered as ancillary to fishing and navigational regulations developed under the auspice of IMO to protect living resources or the marine environment.

Important safeguards have been introduced to protect the international community's interest to continue using the EEZ for navigation and overflight. This is highlighted through the limitations to coastal State jurisdiction over foreign vessels, including due process at IMO, generally accepted international rules and standards, the due regard obligation, non-abuse of rights, restricted enforcement powers and other safeguards. Moreover, disputes concerning the exercise of navigational freedoms are subject to compulsory dispute settlement procedures, where both the coastal State and other States may submit their allegation to an UNCLOS court or tribunal.

The international law of the sea is in a period of reassessment and transition with regard to how to maintain a balance between protecting the essential navigational freedoms and the expansion of the rights of coastal States.[418] The fact that the coastal State is given expanded concurrent jurisdiction in relation to foreign vessels means that certain restraints on the navigational freedoms are acceptable, but such development is not enough to entirely alter the jurisdictional framework of the EEZ established under UNCLOS.[419] The less than definitive language of

[415] J. C. Phillips, 'The Exclusive Economic Zone as a Concept in International Law' (1977) 26 Int'l & Compar LQ 585, 589–590; Yoshifumi Tanaka, *The International Law of the Sea* (3rd ed., Cambridge University Press 2019) 159.

[416] David J Attard, *The Exclusive Economic Zone in International Law* (Clarendon Press 1987) 75; Alexander Proelss, 'The Law on the Exclusive Economic Zone in Perspective: Legal Status and Resolution of User Conflicts Revisited' (2012) 26 Ocean YB 87, 92–97; Tullio Scovazzi, '"Due Regard" Obligations, with Particular Emphasis of Fisheries in the Exclusive Economic Zone' (2019) 34 Int'l J Marine & Coastal L 56, 69.

[417] Van Dyke (2005) 121; Boyle and Redgwell (2021) 506, 544–545.

[418] Stephens and Rothwell (2012) 708–709.

[419] Churchill, Lowe and Sander (2022) 278.

Part V, on the positive side, has given both sides sufficient flexibility to find a dynamic balance.

It is important to acknowledge that the tension between navigational freedoms and coastal interests will continues to exist within the framework of this *sui generis* regime, with occasional developments trending to advantage either the coastal State or other States. In most cases, the tension can be managed if both sides respect the attribution of rights and duties, and exercise their due regard obligations diligently. It is also important that disputes relating to the basic navigational freedoms are subject to the compulsory dispute settlement procedures. Among other implications, the juridical process could contribute to legal certainty on some crucial provisions to prevent potential conflicts. This is illustrated by the contribution made by ITLOS in making a firm statement that, while the coastal State has the right to regulate bunkering of fishing vessels in its EEZ, the bunkering of non-fishing vessels falls within the freedom of navigation.[420]

[420] M/V 'Virginia G' Case para 217; M/V 'Norstar' Case paras 219–220; M/T 'San Padre Pio' Case paras 107–108.