



NAVIGATING THE WATERS: SYNERGIES AND CHALLENGES AT THE INTERSECTION OF ENVIRONMENTAL LAW AND ADMIRALTY LAW

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ABSTRACT

This paper examines the intersection of maritime law and environmental protection, highlighting their convergent interests and inherent tensions. While both fields aim for sustainable maritime operations, their differing histories and jurisdictions often lead to divergent approaches to liability and pollution prevention. A significant challenge lies in achieving uniform enforcement across international and domestic systems, especially regarding transboundary degradation from shipping. Inconsistent standards for causation and damages often hinder remediation and equitable compensation, necessitating integrated legal frameworks. Furthermore, contemporary environmental mandates frequently conflict with traditional doctrines like flag state autonomy and limited shipowner liability. By analysing key conventions such as MARPOL and UNCLOS alongside judicial precedents, this study identifies persistent disputes and opportunities for synergy, including enhanced port state control. Ultimately, the article advocates for a synthesised legal strategy that balances maritime commerce with environmental imperatives to strengthen global ocean governance.

KEYWORDS: Admiralty Law, Jurisdiction, Principles

1. INTRODUCTION

Environmental law and admiralty law exhibit increasing convergence as maritime activities engender multifaceted environmental, economic, and regulatory challenges. While admiralty law traditionally facilitates navigation, commerce, and the resolution of maritime disputes, environmental law serves to protect marine ecosystems from pollution, biodiversity loss, and the impacts of climate change.¹ Their intersection presents opportunities for integrated governance while simultaneously exposing tensions between commercial freedoms and environmental imperatives.² This article examines the evolving synergies and conflicts shaping contemporary maritime governance, assessing the extent to which legal frameworks can reconcile sustainable ocean utilisation with the enduring principles of admiralty law.

2. CONCEPTUAL FOUNDATIONS OF ADMIRALTY LAW

Admiralty law is among the oldest branches of law, with roots extending to ancient maritime customs that governed seaborne trade and navigation. These historical precedents established a

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¹ X Wu and MB Khaskheli, 'Systems Thinking of Marine Policies in Promoting Environmental Law, Sustainability, and Digital Technologies: Social Challenges in Belt and Road Initiative Countries' [2024] 12 (10) *Systems* 400.

² *ibid.*



universal framework for resolving disputes, protecting commerce, and ensuring safety at sea, ultimately shaping modern international maritime law and jurisdiction across sovereign boundaries. The earliest known maritime code, the *Rhodian Sea Laws* (c. 900 BCE),³ established foundational principles such as *general average*, which mandated the equitable sharing of losses among shipowners and cargo interests during maritime ventures.⁴ These principles influenced later Mediterranean maritime systems, including the *Lex Mercatoria*,⁵ a body of merchant customs that facilitated commercial uniformity across medieval Europe.⁶ During the Middle Ages, maritime codes such as the *Rolls of Oléron* (late 12th century),⁷ the *Consolato del Mare* (14th century), and the *Laws of Wisby* (13th century) standardised maritime practice and dispute resolution across trading ports.⁸ The *Rolls of Oléron*, in particular, had a profound influence on English maritime jurisprudence, shaping early concepts of seaworthiness, crew discipline, and liability for maritime losses.⁹

The growth of European maritime empires between the 16th and 19th centuries, alongside expanding global trade networks, catalysed the development of comprehensive maritime codes and doctrines, reinforcing the international character of Admiralty law.¹⁰ In the modern era, the unification and harmonisation of maritime law have been advanced through international conventions such as the *United Nations Convention on the Law of the Sea 1982* (UNCLOS)¹¹ and the *Hague-Visby Rules 1968*,¹² reflecting a shift from fragmented national practices toward a coherent transnational legal order governing the global maritime domain.

2.1 Admiralty Law

Admiralty law governs legal disputes and transactions connected to maritime commerce, nautical issues, navigation, shipping, and offences occurring on navigable waters.¹³ Its jurisdiction historically stems from the laws of the sea and the need to regulate maritime conduct beyond

³ W G Vitzthum, *From the Rhodian Sea Law to UNCLOS III Ocean Yearbook* (2003) 17 (1) 56-9.

⁴ R H Temperley, *The Rhodian Sea Law* (Clarendon Press 1926) 3-7.

⁵ E Stern, L Schalk and R Schumacher, '*Lex Mercatoria*' (Band 3 Herrschaft-Migration 1995) 1349.

⁶ H L MacQueen, *Common Law and the Law of the Sea: Lex Mercatoria and the Maritime Tradition* (Cambridge University Press 2015) 21.

⁷ P K Mukherjee, *The Phenomenon of Admiralty: Its Genesis, Historical Evolution, and Usage* in *Public Maritime Law in Asia* (Singapore: Springer Nature Singapore 2026) 1-23.

⁸ F B Sorrell, *Ancient and Medieval Maritime Law* (Sweet & Maxwell 1990) 45-47.

⁹ RG Marsden, *Select Pleas in the Court of Admiralty* (Selden Society, 6, 1892) lxxi-lxxv.

¹⁰ FL Wiswall Jr, *The Development of Admiralty Jurisdiction and Practice Since 1800* (Cambridge University Press 1970) 15-17.

¹¹ *United Nations Convention on the Law of the Sea* (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

¹² *Protocol to Amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading (Hague-Visby Rules)* (adopted 23 February 1968, entered into force 23 June 1977) 1412 UNTS 127.

¹³ Q Abad, G Murtiza and MM Khan, 'Origin of Maritime and Admiralty Laws: An Overview with special Reference to the Black Book of Admiralty' [2020] 1 (1) *Journal of Development and Social Sciences* 65-72; PK Mukherjee, 'The Phenomenon of Admiralty: Its Genesis, Historical Evolution, and Usage' in *Public Maritime Law in Asia* (Springer Nature Singapore 2026) 1-23.



territorial boundaries.¹⁴ In common law jurisdictions, admiralty jurisdiction encompasses matters such as maritime contracts, torts, collisions, salvage, and marine insurance, as well as personal injuries and offences committed on board vessels.¹⁵ In England and Wales, this jurisdiction is conferred upon the Admiralty Court,¹⁶ a specialist division of the King's Bench Division, under section 20 of the *Senior Courts Act 1981* (UK).¹⁷ The scope of this jurisdiction has been clarified and expanded by key case law, including *The River Rima*¹⁸ and *The Indian Grace (No 2)*,¹⁹ which affirmed the principles governing in rem and in personam actions.

Internationally, admiralty jurisdiction is reinforced and harmonised through a network of maritime conventions developed under the auspices of bodies such as the International Maritime Organisation (IMO) and the International Maritime Committee (CMI).²⁰ Notably, the *International Convention for the Unification of Certain Rules Relating to the Arrest of Sea-Going Ships*²¹ and its successor, the *International Convention on Arrest of Ships*,²² establish uniform procedures for the arrest of ships and recognition of maritime claims. These conventions aim to promote consistency in the enforcement of maritime rights and liabilities across jurisdictions, thereby supporting international maritime commerce and dispute resolution.

2.2 Jurisdiction

This principle is the cornerstone of maritime governance, anchoring responsibility for a vessel's conduct to its nation of registration. Under UNCLOS, flag states must exercise effective jurisdiction over administrative, technical and social matters. This exclusive authority prevents legal vacuums on the high seas by ensuring vessels adhere to international safety, staffing and labour standards.²³ The efficacy of this system is often challenged by 'flags of convenience', prompting international law to emphasise a 'genuine link' that requires active oversight and enforcement. By holding states accountable for their fleets' seaworthiness and environmental compliance, the maritime legal

¹⁴ G Rutherglen, 'Territoriality and Admiralty' [2024] 65 (1) *Virginia Journal of International Law* 113.

¹⁵ GS Staring, 'The Admiralty Jurisdiction of Torts and Crimes and the Failed Search for its Purposes' [2007] 38 (4) *Journal of Maritime Law & Commerce* 433.

¹⁶ N Meeson and J Kimbell, *Admiralty Jurisdiction and Practice* (Routledge 2017) 27.

¹⁷ *Senior Courts Act 1981* (UK), s 20.

¹⁸ *The River Rima* [1988] 2 Lloyd's Rep 193.

¹⁹ *The Indian Grace (No 2)* [1998] AC 878.

²⁰ TA Owuor, *Kenya's Maritime Security Regime in the Face of Transnational Organised Crimes at Sea: Strengthening Cooperation, Addressing Legal Gaps, and Recommendations for the Expansion of Universal Jurisdiction* (United Nations–Nippon Foundation Ocean Affairs and Law of the Sea Fellowship 2025); S Abraham, 'The Development of Admiralty Jurisdiction in India: A Critical Analysis' [2023] 3 (1) *Part 2 Indian Journal of Integrated Research and Law* 18.

²¹ *International Convention for the Unification of Certain Rules Relating to the Arrest of Sea-Going Ships* (adopted 10 May 1952, entered into force 24 February 1956) 439 UNTS 193.

²² *International Convention on Arrest of Ships* (adopted 12 March 1999, entered into force 14 September 2011) 2277 UNTS 405.

²³ YH Min and JH Choi, 'Unmanned Ships and Flag State Jurisdiction' in *Maritime Autonomous Surface Ships (MASS)-Regulation, Technology, and Policy: Three Dimensions of Effective* (Cham: Springer Nature Switzerland 2024) 29-45.



system minimises risks and ensures global operational standards. Specifically, UNCLOS²⁴ mandate that vessels remain under the exclusive jurisdiction of their flag state, which must enforce international regulations regardless of geographical location.²⁵

- a. **Freedom of Navigation:** Codified in Article 87 of the United Nations Convention on the Law of the Sea (UNCLOS), the principle of freedom of navigation constitutes a fundamental tenet of the international law of the sea, ensuring that all states, whether coastal or landlocked, possess the inherent right to navigate freely in maritime areas beyond territorial waters. This freedom promotes global maritime trade and communication while remaining subject to obligations such as due regard for the rights and duties of other states and adherence to international regulations concerning pollution and safety.
- b. **Limitation of Liability:** The principle of limitation of liability allows shipowners to cap their financial exposure in respect of certain maritime claims. This doctrine, codified in the *Convention on Limitation of Liability for Maritime Claims 1976* (LLMC)²⁶ and its 1996 Protocol,²⁷ seeks to balance the interests of commerce and justice by providing predictability to shipowners while preserving fair compensation mechanisms for victims of maritime accidents. The principle has been upheld in cases such as *The Aegean Sea*,²⁸ which affirmed its importance to international shipping stability.²⁹
- c. **Lex Maritima:** The *lex maritima* represents a transnational corpus of customary maritime norms and principles developed through centuries of practice, maritime codes, and judicial precedent. It encompasses doctrines such as seaworthiness, general average, and salvage, providing a cohesive framework that transcends national legal systems. This body of law reflects the enduring need for standardisation and predictability in maritime commerce, facilitating uniform dispute resolution and equitable treatment of maritime actors.³⁰

2.3 Principles

Admiralty law is underpinned by several foundational principles that structure the governance of maritime activities and ensure coherence in international maritime practice. These principles, for instance, establish a framework for determining jurisdiction over incidents at sea, delineate the rights and responsibilities of shipowners, crew, and cargo interests, and provide standardised approaches to issues such as salvage, collision, and general average.³¹ They promote a common

²⁴ United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS) arts 87, 92, 94.

²⁵ *ibid* art 94.

²⁶ *Convention on Limitation of Liability for Maritime Claims* (adopted 19 November 1976, entered into force 1 December 1986) 1456 UNTS 221.

²⁷ *Protocol of 1996 to Amend the Convention on Limitation of Liability for Maritime Claims* (adopted 2 May 1996, entered into force 13 May 2004) 35 ILM 1433

²⁸ *The Aegean Sea* [1998] 2 Lloyd's Rep 39.

²⁹ W Tetley, *Maritime Liens and Claims* (2nd edn, Blais 1998).

³⁰ S Dromgoole (ed), *Maritime Law* (2nd edn, Routledge 2016).

³¹ Meeson and Kimbell (n 16).



understanding of maritime customs and laws, thereby facilitating international trade and commerce by offering predictability and reducing legal uncertainties for parties operating across different national waters. This consistency helps prevent conflicts and ensures that maritime disputes can be resolved equitably, regardless of the flag a vessel flies or the nationality of the parties involved

3. CONCEPTUAL FOUNDATIONS OF ENVIRONMENTAL LAW

3.1 *Ecocentrism vs Anthropocentrism*

The conceptual tension between *ecocentrism* and *anthropocentrism* defines much of environmental law's theoretical debate. Anthropocentrism situates humans at the centre of legal concern, viewing nature primarily as a resource for human benefit.³² This perspective underpins early environmental regulation, which focused on mitigating harms that directly threatened human health or economic interests.³³ By contrast, ecocentrism recognises the intrinsic value of ecosystems, species, and natural processes independent of human utility.³⁴ It demands a legal paradigm that prioritises ecological integrity, interdependence, and the maintenance of natural systems as ends in themselves.³⁵

Ecocentric approaches have informed doctrines such as the *rights of nature*, now codified in instruments like the *Constitution of Ecuador 2008*, which grants nature (*Pachamama*) legal standing.³⁶ These developments mark a jurisprudential shift from human-centred stewardship to a recognition of ecological personhood.³⁷ However, critics argue that pure ecocentrism risks marginalising human development needs, especially in the Global South, where environmental protection intersects with poverty alleviation.³⁸ The challenge, therefore, lies in integrating ecocentric ethics within a socio-ecological justice framework that acknowledges both human and ecological welfare.³⁹

3.2 Justice-Based vs Instrumental Environmental Law

Environmental law may be approached either as a tool for achieving distributive and corrective *justice* or as an *instrumental* means of managing environmental risks and ensuring efficient resource use. A justice-based conception prioritises equity both intergenerationally and intragenerational, ensuring fair distribution of environmental benefits and burdens.⁴⁰ It encompasses climate justice, environmental human rights, and the protection of vulnerable groups disproportionately affected by environmental degradation.⁴¹ This approach is exemplified by the

³² CD Stone, *Should Trees Have Standing? Law, Morality and the Environment* (3rd edn, Oxford University Press 2010) 4–6.

³³ P Sands and J Peel, *Principles of International Environmental Law* (4th edn, Cambridge University Press 2018) 34.

³⁴ K Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (2nd edn, Routledge 2016) 45–46.

³⁵ P Burdon, *Earth Jurisprudence: Private Property and the Environment* (Routledge 2014) 23.

³⁶ *Constitución de la República del Ecuador 2008*, arts 71–74.

³⁷ C Cullinan, *Wild Law: A Manifesto for Earth Justice* (2nd edn, Green Books 2011) 82–84.

³⁸ LJ Kotzé, 'Global Environmental Constitutionalism in the Anthropocene' [2016] 25 2 *Transnational Environmental Law*, 7.

³⁹ E Daly and JR May, *Implementing Environmental Constitutionalism: Current Global Challenges* (Cambridge University Press 2018) 65.

⁴⁰ E B Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (Transnational Publishers 1989) 19–23.

⁴¹ L Rajamani, 'The Principle of Equity in International Climate Change Law' [2006] 9 *Yale Journal of International Law* 505.

Paris Agreement 2015, which embeds equity and common but differentiated responsibilities as normative commitments.⁴²

In contrast, the instrumental approach treats environmental law as a mechanism for optimising outcomes, often through cost-benefit analysis, efficiency, and risk management frameworks.⁴³ Such technocratic models dominate international environmental governance, favouring quantifiable standards and market logic.⁴⁴ While this can enhance regulatory predictability, it often sidelines normative concerns about justice and moral responsibility.⁴⁵ The ongoing evolution of environmental law thus reflects an attempt to reconcile these frameworks: embedding justice concerns within instruments originally designed for managerial efficiency.⁴⁶

3.3 Regulatory vs Market Instrument Approaches

Regulatory and market-based frameworks offer competing but complementary environmental strategies. The regulatory approach uses state-imposed standards and enforcement to control pollution, which is essential for setting clear limits like emission caps. However, critics argue it can stifle innovation and increase costs. Conversely, market-based instruments such as carbon trading and green taxes internalise externalities and provide economic incentives for protection. While the *Kyoto Protocol* and *EU ETS* exemplify this cost-effective logic, some worry that these tools commodify nature. Ultimately, a hybrid approach combining both systems is increasingly seen as essential for balancing environmental goals with economic pragmatism.

3.4 Sources

Environmental law derives its authority and content from a pluralistic array of legal sources operating at international, regional, and domestic levels. International treaties constitute the primary formal source, codifying state obligations concerning environmental protection, conservation, and sustainable development. Notable examples include the *United Nations Convention on the Law of the Sea 1982* (UNCLOS), which provides a comprehensive legal framework for marine environmental protection;⁴⁷ the *International Convention for the Prevention of Pollution from Ships 1973/1978* (MARPOL 73/78), which regulates ship-based pollution;⁴⁸ and the *Convention on Biological Diversity 1992* (CBD), which promotes the conservation and equitable utilisation of biodiversity.⁴⁹ These treaties establish binding commitments that define state duties, regulatory standards, and mechanisms for international cooperation.

⁴² *Paris Agreement* (adopted 12 December 2015, entered into force 4 November 2016) UN Doc FCCC/CP/2015/10/Add.1, art 2 (2).

⁴³ R B Stewart, 'Instrument Choice in Environmental Policy' *Harvard Environmental Law Review* (1990) 10 29.

⁴⁴ D Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press 2010) 56.

⁴⁵ N Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press 2007) 41.

⁴⁶ J H Knox, 'Human Rights, Environmental Protection, and the Sustainable Development Goals' [2019] 24 *Washington International Law Journal* 517, 523.

⁴⁷ *United Nations Convention on the Law of the Sea* (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS) arts 192–237.

⁴⁸ *International Convention for the Prevention of Pollution from Ships* (MARPOL) (adopted 2 November 1973, as modified by the Protocol of 1978) 1340 UNTS 61.

⁴⁹ *Convention on Biological Diversity* (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79.



Customary international law supplements treaty obligations, particularly through principles such as the *no-harm rule*, which requires states to ensure that activities within their jurisdiction or control do not cause environmental damage to other states or areas beyond national jurisdiction.⁵⁰ This principle, articulated in the *Trail Smelter Arbitration (United States v Canada)*, remains a cornerstone of transboundary environmental responsibility.⁵¹ Soft law instruments, though non-binding, exert significant normative influence by guiding the interpretation and implementation of binding rules. The *Rio Declaration on Environment and Development 1992* articulates foundational principles such as the precautionary principle, sustainable development, and public participation that shape both treaty regimes and domestic legal systems.⁵²

Statutes and regulations operationalise international commitments domestically. For example, Nigeria's *NESREA Act 2007* provides the framework for enforcing standards and environmental impact assessments.⁵³ Judicial decisions further interpret these obligations, developing environmental jurisprudence.⁵⁴ Together, these sources form a normative system defining state responsibilities and compliance mechanisms across legal orders.

3.5 Objectives

The overarching objectives of environmental law are to prevent, control, and remedy environmental degradation while ensuring the sustainable use of natural resources.⁵⁵ Prevention and mitigation of environmental harm represent the foremost aim, rooted in the recognition that ecological damage is often irreversible and costly to repair.⁵⁶ Conservation of natural resources complements this preventive focus by safeguarding biodiversity, ecosystems, and essential environmental goods for present and future generations.⁵⁷ These objectives collectively advance the principle of *sustainable development*, defined in the *Brundtland Report* as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁵⁸

Inter-and intra-generational equity form the ethical core of environmental governance, ensuring fairness across temporal and spatial dimensions.⁵⁹ *Inter-generational equity* requires that environmental protection extend beyond immediate interests to secure ecological stability for future generations,⁶⁰ while *intra-generational equity* demands equitable distribution of

⁵⁰ Sands and Peel (n 33) 194–196.

⁵¹ *Trail Smelter Arbitration (United States v Canada)* (1938 and 1941) 3 RIAA 1905, 1965.

⁵² *Rio Declaration on Environment and Development* (adopted 14 June 1992) UN Doc A/CONF.151/26 (vol I) Principle 15.

⁵³ *National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007* (Nigeria) ss 2–7.

⁵⁴ *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14, Paras 101–197.

⁵⁵ Sands and Peel (n 33) 8–12.

⁵⁶ A Birnie, AE Boyle and C Redgwell, *International Law and the Environment* (Oxford University Press; 2009) 9–11.

⁵⁷ D Bodansky, J Brunnée and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2007) 5.

⁵⁸ World Commission on Environment and Development, *Our Common Future* (Oxford University Press 1987) 43.

⁵⁹ Weiss (n 40) 19.

⁶⁰ *ibid* 20–22.

environmental benefits and burdens within the present generation, particularly between developed and developing states.⁶¹

These objectives are operationalised through foundational principles that guide both international and domestic implementation. The *precautionary principle* mandates that lack of full scientific certainty shall not be used to delay measures to prevent environmental degradation, a standard codified in Principle 15 of the *Rio Declaration on Environment and Development 1992* and reaffirmed in the *Cartagena Protocol on Biosafety 2000*.⁶² The *polluter pays principle* allocates responsibility for remediation and prevention costs to those responsible for pollution, ensuring internalisation of environmental externalities.⁶³ The principle of *common but differentiated responsibilities* (CBDR), enshrined in Article 3(1) of the *United Nations Framework Convention on Climate Change 1992* (UNFCCC), recognises the unequal capacities and historical responsibilities of states in addressing global environmental challenges.⁶⁴ Finally, *environmental impact assessment* (EIA) serves as a procedural mechanism translating these principles into governance practice by requiring prior evaluation of the environmental consequences of proposed activities.⁶⁵ Together, these principles embed the objectives of prevention, sustainability, and equity within a coherent normative framework of global environmental law.

3.6 Marine Relevance to Environmental Law

Environmental law plays a crucial role in regulating and protecting the marine environment, extending its principles and mechanisms to the world's oceans and seas. The marine domain faces complex environmental pressures from vessel-source pollution and offshore extraction to overfishing and habitat destruction, which necessitate a coherent legal response grounded in international law.⁶⁶ Central to this framework is the *United Nations Convention on the Law of the Sea 1982* (UNCLOS), which establishes the general obligation of states to protect and preserve the marine environment (Article 192) and to prevent, reduce, and control pollution from various sources, including land-based activities, seabed exploration, dumping, and vessels (Articles 194 – 196).⁶⁷ UNCLOS also mandates environmental impact assessments (EIAs) for activities likely to cause significant marine harm (Article 206), integrating environmental governance into ocean-use regulation.⁶⁸

⁶¹ L Rajamani, 'The Principle of Equity in International Climate Change Law' [2006] 9 *Yale Journal of International Law* 505, 511.

⁶² *Rio Declaration on Environment and Development* (adopted 14 June 1992) UN Doc A/CONF.151/26 (vol I) Principle 15; *Cartagena Protocol on Biosafety to the Convention on Biological Diversity* (adopted 29 January 2000, entered into force 11 September 2003) 2226 UNTS 208, art 1.

⁶³ OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies* (adopted 26 May 1972) C (72)128.

⁶⁴ *United Nations Framework Convention on Climate Change* (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107, art 3(1).

⁶⁵ *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14, 205.

⁶⁶ Birnie, Boyle and Redgwell (n 56) 384–386.

⁶⁷ *United Nations Convention on the Law of the Sea* (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS) arts 192–196.

⁶⁸ *ibid* Art. 206.



Pollution control is further reinforced by specialised conventions such as the *International Convention for the Prevention of Pollution from Ships 1973/1978* (MARPOL), which sets detailed standards to prevent pollution by oil, chemicals, sewage, and garbage from ships.⁶⁹ These obligations complement the *London Convention 1972* and the *1996 London Protocol*, which regulate ocean dumping and waste disposal.⁷⁰ In addressing land-based and atmospheric sources of marine pollution, soft law instruments like the *Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)* provide normative guidance and promote international cooperation.⁷¹ The conservation of marine biodiversity is another core aspect of environmental law's marine relevance. Instruments such as the *Convention on Biological Diversity 1992* (CBD) and the *Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973* (CITES) underpin the establishment of Marine Protected Areas (MPAs) and the sustainable management of fisheries and ecosystems.⁷² Regional seas conventions, including the *Abidjan Convention 1981* for the West and Central African region, further localise these global commitments.⁷³

Environmental law thus intersects with admiralty and maritime law by embedding ecological protection within traditional frameworks concerned with navigation, shipping, and marine jurisdiction. Through UNCLOS and MARPOL, it extends the reach of international law from the regulation of maritime commerce to the stewardship of marine ecosystems, thereby operationalising the principle that the oceans are a shared natural heritage whose preservation is a common responsibility.⁷⁴

4. POINTS OF CONVERGENCE BETWEEN ENVIRONMENTAL LAW AND ADMIRALTY LAW

4.1 Shared Regulatory Frameworks

The intersection between environmental and maritime law is most clearly expressed through a shared body of multilateral instruments that integrates environmental protection into the governance of maritime activities. The *United Nations Convention on the Law of the Sea 1982* (UNCLOS) remains the foundational legal framework, setting out the general obligation of states to protect and preserve the marine environment under Article 192 and detailing specific measures

⁶⁹ *International Convention for the Prevention of Pollution from Ships* (MARPOL) (adopted 2 November 1973, as modified by the Protocol of 1978) 1340 UNTS 61, annexes I–VI.

⁷⁰ *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter* (adopted 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120; *1996 Protocol to the London Convention* (adopted 7 November 1996, entered into force 24 March 2006) 36 ILM 1.

⁷¹ UNEP, *Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities* (adopted 3 November 1995) <<https://www.unep.org/gpa>> accessed 21 October 2025.

⁷² *Convention on Biological Diversity* (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79, Arts 8 and 14; *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (adopted 3 March 1973, entered into force 1 July 1975) 993 UNTS 243.

⁷³ *Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region* (adopted 23 March 1981, entered into force 5 August 1984) 20 ILM 746.

⁷⁴ D Freestone, *The Cambridge Handbook of the Law of the Sea* (Cambridge University Press 2015) 502–504.



to prevent, reduce, and control pollution from various sources, including land-based activities, seabed exploration, dumping, and vessels, under Articles 194 – 196.⁷⁵ UNCLOS further mandates cooperation among states, contingency planning, and environmental impact assessment for activities likely to cause significant marine harm, thus embedding environmental considerations within the broader law of the sea regime.⁷⁶

Complementing UNCLOS, the *International Convention for the Prevention of Pollution from Ships 1973/1978* (MARPOL 73/78) provides the principal regulatory framework for controlling ship-source pollution.⁷⁷ MARPOL's six annexes address pollution from oil, noxious liquid substances, harmful substances in packaged form, sewage, garbage, and air emissions, thereby operationalising international environmental standards within maritime navigation and vessel operation.⁷⁸ The *International Convention on Oil Pollution Preparedness, Response and Co-operation 1990* (OPRC 1990) builds upon this framework by obliging states and ship operators to establish national systems for oil pollution preparedness and response, and to cooperate in regional and global contingency planning.⁷⁹

These regimes collectively reflect an integrated and layered architecture where environmental norms are embedded within the operational and regulatory governance of maritime activities. The convergence of admiralty and environmental obligations illustrates the evolution of the law of the sea from a system centred on navigation and exploitation to one that emphasises environmental stewardship and sustainability.⁸⁰ This integration underscores the emergence of a holistic *lex maritima environmentalist*, in which the protection of the marine environment is inseparable from the regulation of maritime commerce and state responsibility.⁸¹

4.2 Port State Control and Enforcement Synergy

Port State Control (PSC) represents a vital enforcement nexus between maritime and environmental law, providing an institutional mechanism through which coastal and port states monitor and enforce compliance with international standards. Under this regime, port authorities are empowered to inspect foreign vessels calling at their ports to verify adherence to environmental, safety, and labour obligations established under key international instruments.⁸² PSC derives its legal foundation primarily from the *United Nations Convention on the Law of the Sea 1982* (UNCLOS),

⁷⁵ *United Nations Convention on the Law of the Sea* (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS) arts 192–196.

⁷⁶ *ibid*, arts 197–206.

⁷⁷ *International Convention for the Prevention of Pollution from Ships* (MARPOL) (adopted 2 November 1973, as modified by the Protocol of 1978) 1340 UNTS 61.

⁷⁸ Birnie, Boyle and Redgwell (n 56) 392–394.

⁷⁹ *International Convention on Oil Pollution Preparedness, Response and Co-operation* (adopted 30 November 1990, entered into force 13 May 1995) 1891 UNTS 77, Arts 3–6.

⁸⁰ Freestone (n 74) 495–498.

⁸¹ Y Tanaka, *The International Law of the Sea* (4th edn, Cambridge University Press 2023) 341–344.

⁸² Birnie, Boyle and Redgwell (n 57) 402–404.



which authorises port states to take administrative and enforcement measures against vessels violating applicable international rules and standards for the prevention, reduction, and control of marine pollution.⁸³

The *International Convention for the Prevention of Pollution from Ships 1973/1978* (MARPOL) and the *International Convention for the Safety of Life at Sea 1974* (SOLAS) operationalise this mandate by setting detailed environmental and safety requirements for ship construction, operation, and discharge management.⁸⁴ Under MARPOL, port states may inspect ships suspected of non-compliance with pollution-prevention provisions, detain vessels where necessary, and report violations to the flag state.⁸⁵ SOLAS complements this framework by ensuring that vessels maintain seaworthiness and adhere to minimum safety and equipment standards, thus aligning environmental protection with traditional admiralty objectives of maritime safety and discipline.⁸⁶

Regional arrangements have further strengthened PSC through cooperative Memoranda of Understanding (MoUs), which harmonise inspection procedures and promote information sharing among maritime administrations. The *Paris MoU on Port State Control 1982*, covering Europe and the North Atlantic, and the *Abuja MoU on Port State Control 1999*, covering West and Central Africa, exemplify these cooperative frameworks.⁸⁷ These MoUs facilitate the blacklisting of substandard vessels, joint training, and data exchange, thereby enhancing compliance and reducing ‘ports of convenience.’⁸⁸ Through PSC, environmental oversight effectively extends beyond the limitations of flag state jurisdiction, ensuring that environmental and safety standards are universally applied and enforced.⁸⁹ This synergy reinforces the mutual objectives of environmental law and admiralty law by integrating sustainability, safety, and accountability into the operational governance of international shipping.⁹⁰

4.3 Liability and Compensation Regimes

The convergence of environmental and maritime law is most evident in international liability and compensation frameworks for maritime pollution. These regimes apply strict liability to ensure victim compensation without proving fault, while encouraging preventive diligence among shipowners and operators. Liability and Compensation Regimes.

⁸³ *United Nations Convention on the Law of the Sea* (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS) Arts 218–220.

⁸⁴ *International Convention for the Prevention of Pollution from Ships* (MARPOL) (adopted 2 November 1973, as modified by the Protocol of 1978) 1340 UNTS 61; *International Convention for the Safety of Life at Sea* (adopted 1 November 1974, entered into force 25 May 1980) 1184 UNTS 3 (SOLAS).

⁸⁵ MARPOL, Art 5 and annex I, reg 11.

⁸⁶ SOLAS, ch I, 19.

⁸⁷ *Memorandum of Understanding on Port State Control in the European Region (Paris MoU)* (adopted 26 January 1982, entered into force 1 July 1982); *Memorandum of Understanding on Port State Control for West and Central African Region (Abuja MoU)* (adopted 22 October 1999, entered into force 3 May 2000).

⁸⁸ OECD, *Maritime Transport Committee Report on Port State Control* (OECD Publishing 2003) 12–14.

⁸⁹ Tanaka (n 81) 358–360.

⁹⁰ Freestone (n 74) 502–504.



The intersection of environmental and maritime law is best exemplified by international liability and compensation frameworks for maritime pollution. Grounded in strict liability, these regimes ensure victim compensation without proving fault while encouraging preventive measures.⁹¹ The *1992 Civil Liability Convention* (CLC) is central to this framework, imposing strict liability on shipowners for oil spills from tankers.⁹² The CLC requires shipowners to maintain financial security, limiting liability based on vessel tonnage to balance compensation with commercial certainty.⁹³ Additionally, the *1992 FUND Convention* establishes a collective compensation mechanism funded by oil receivers.⁹⁴ It provides supplementary compensation when shipowner liability under the CLC is insufficient or unidentified, ensuring full redress for victims.⁹⁵ Together, these regimes create a two-tiered system that aligns maritime liability with environmental objectives.⁹⁶

These conventions are complemented by sector-specific instruments, such as the *International Convention on Civil Liability for Bunker Oil Pollution Damage 2001* and the *Nairobi International Convention on the Removal of Wrecks 2007*, which extend liability to non-tanker vessels and wreck-related pollution, respectively.⁹⁷ Such developments reflect the progressive integration of environmental accountability into admiralty law, marking a shift from traditional maritime fault-based doctrines to a framework that prioritises environmental restoration, compensation, and preventive governance.⁹⁸ This hybridisation of liability regimes reinforces both the *polluter pays* and *precautionary* principles, bridging the divide between private maritime commerce and global environmental stewardship.⁹⁹

4.4 Normative and Jurisdictional Tensions Between Environmental Law and Admiralty Law

a. Flag State vs Coastal State Obligations:

Admiralty law traditionally prioritises **flag state jurisdiction** (UNCLOS, Art 92), allowing states to regulate vessels flying their flag, often resulting in *lax enforcement due to flags of convenience*. In contrast, environmental law empowers **coastal states** to protect their marine environments,

⁹¹ Birnie, Boyle and Redgwell (n 78) 408–410.

⁹² *International Convention on Civil Liability for Oil Pollution Damage (CLC)* (adopted 27 November 1992, entered into force 30 May 1996) 1956 UNTS 255, art III.

⁹³ *ibid* arts V–VII.

⁹⁴ *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND Convention)* (adopted 27 November 1992, entered into force 30 May 1996) 1953 UNTS 330, arts 2–4.

⁹⁵ *ibid*, art 4(1).

⁹⁶ Freestone (n 74) 498–500.

⁹⁷ *International Convention on Civil Liability for Bunker Oil Pollution Damage* (adopted 23 March 2001, entered into force 21 November 2008) 40 ILM 1493; *Nairobi International Convention on the Removal of Wrecks* (adopted 18 May 2007, entered into force 14 April 2015) IMO Doc LEG/CONF.16/19.

⁹⁸ Tanaka (n 82) 363–365.

⁹⁹ AK Tan, *Vessel-Source Marine Pollution: The Law and Politics of International Regulation* (Cambridge University Press 2006) 212–214.



especially within territorial seas and EEZs (UNCLOS, Arts 56, 211). This creates a normative tension where environmental protection demands greater coastal state control, while admiralty law defers to flag states, potentially undermining regulatory effectiveness.¹⁰⁰

b. Limitation of Liability in Marine Pollution Cases

Admiralty law permits limitation of shipowners' liability under instruments like the 1976 LLMC and CLC 1992, aiming to protect maritime commerce and insure risk. Environmental law, however, often advocates for full restoration and accountability for ecological harm. This leads to a conflict between commercial certainty and the principle of full reparation, especially in catastrophic spills where capped compensation may be inadequate (e.g. *Erika* incident).

c. Fragmentation in Dispute Resolution Mechanisms:

Admiralty disputes are typically resolved in national courts or arbitral tribunals, while environmental law disputes may engage international fora such as ITLOS, the ICJ, or compliance mechanisms under multilateral environmental agreements. The lack of a unified adjudicatory mechanism causes fragmentation, procedural uncertainty, and inconsistent standards, weakening enforcement and deterring harmonised responses to transboundary marine pollution.¹⁰¹

d. Case Studies at the Intersection of Environmental Law and Admiralty Law

i Erika (France, 1999)

The *Erika* case¹⁰² arose from the sinking of the Maltese-registered oil tanker *Erika* off the coast of Brittany, France, on 12 December 1999. The vessel broke into two during a storm, releasing approximately 20,000 tonnes of heavy fuel oil into the Atlantic Ocean and polluting nearly 400 kilometres of French coastline. The disaster caused extensive ecological and economic damage, affecting fisheries, tourism, and marine biodiversity. Compensation claims were brought for environmental clean-up and economic losses. A major legal issue was whether parties beyond the shipowner, including the oil company Total SA, could incur liability. In 2012, the French Court of Cassation upheld criminal liability against Total and recognised “ecological damage” (*préjudice écologique*) as a compensable head of damage in French law. This decision extended liability beyond the shipowner to include the charterer (Total SA), citing environmental harm and negligence. This challenged traditional admiralty doctrines of limited liability and underscored the

¹⁰⁰ EK Mbiah, ‘Coastal, Flag and Port State Jurisdictions: Powers and other Considerations Under UNCLOS’ in *Maritime Law in Motion* (Cham: Springer International Publishing 2020) 495-523).

¹⁰¹ United Nations Convention on the Law of the Sea 1982; Convention on Limitation of Liability for Maritime Claims 1976; International Convention on Civil Liability for Oil Pollution Damage 1992; M Fitzmaurice, *Contemporary Issues in International Environmental Law* (Elgar 2009); T Scovazzi, ‘The Evolution of International Law of the Sea: New Issues, New Challenges’ (2000) 286 *RCADI* 41; R Churchill, A Lowe, *The Law of the Sea* (3rd edn, Manchester UP 1999).

¹⁰² *Erika* (Cour de cassation, Chambre Criminelle, 25 September 2012, No 10-82.938) France or Case C-188/07, *Commune de Mesquer v Total France SA and Total International Ltd* [2008] ECR I-4501; V Rebeyrol, ‘The Erika Case: An Incitement to Rewrite the CLC’ [2013] 22 (1) *European Energy and Environmental Law Review* 33-48.



growing influence of environmental accountability in maritime cases.¹⁰³ The *Erika* case became a landmark in international environmental and maritime law because it strengthened corporate accountability for oil pollution and influenced subsequent European maritime safety reforms.

ii Prestige (Spain, 2002)

The *Prestige* case¹⁰⁴ arose from the sinking of the oil tanker *Prestige* off the coast of Galicia, Spain, in November 2002 after it broke apart during a storm. The vessel was carrying massive quantities of heavy fuel oil, which spilt into the Atlantic Ocean and caused one of the most severe maritime environmental disasters in European history. The spill led to extensive pollution of the Spanish, Portuguese, and French coastlines, severely affecting fisheries, tourism, and marine ecosystems. It also triggered major litigation concerning criminal liability, state response and compensation mechanisms for environmental harm. A key legal dimension of the case involved the prosecution of the ship's master and questions around jurisdiction, criminal responsibility, and compliance with maritime safety regulations. The Spanish courts managed domestic criminal proceedings, while broader civil liability issues engaged international maritime compensation frameworks. This case illustrates the intersection of criminal liability, environmental harm, and international maritime regulation by highlighting the tension between flag state protection and coastal state rights to hold actors accountable for transboundary marine environmental harm.

iii MOX Plant Case (Ireland v UK, 2001)

The *MOX Plant Case (Ireland v United Kingdom)*¹⁰⁵ concerned Ireland's challenge to the United Kingdom's authorisation of the Mixed Oxide (MOX) nuclear fuel plant at Sellafield. Ireland alleged that discharges and potential risks from the plant threatened the Irish Sea environment and breached obligations under international environmental and maritime law, including duties of cooperation and protection of the marine environment. Procedurally, the dispute was notable because it was fragmented across multiple fora (ITLOS, arbitral tribunals under UNCLOS, and the European Court of Justice). The International Tribunal for the Law of the Sea (ITLOS) indicated provisional measures in 2001, ordering both parties to cooperate and exchange information pending the constitution of an arbitral tribunal. The case ultimately highlighted tensions between UNCLOS dispute settlement mechanisms and EU law, particularly regarding jurisdictional primacy. Arbitral proceedings under Annex VII of UNCLOS followed, but the dispute was eventually discontinued after procedural developments within the EU legal order. Though not strictly an admiralty case, it reflected maritime environmental obligations under UNCLOS and the difficulty of coordinating dispute resolution across environmental and maritime domains.¹⁰⁶

¹⁰³ *Audiencia Provincial de A Coruña, Sentencia 111/2013*, 13 Nov 2013; *Court of Cassation (Crim. Chamber), Total SA and Others v Civil Parties* [2012] (Cass. Crim. 25 Sep. 2012).

¹⁰⁴ *Spain v Apostolos Mangouras & Others (Prestige case)*, Spanish Supreme Court (Tribunal Supremo), Criminal Division, Judgment of 14 January 2016 (STS 23/2016).

¹⁰⁵ *MOX Plant Case (Ireland v United Kingdom)* (Provisional Measures), ITLOS Case No 10, Order of 3 December 2001.

¹⁰⁶ *ibid.*



iv. The Arctic Sunrise Arbitration (*Kingdom of the Netherlands v Russian Federation*).¹⁰⁷ The dispute followed Russia's September 2013 seizure of the Dutch-flagged Greenpeace vessel *Arctic Sunrise* during protests in the Pechora Sea. Russia detained the ship and its 30 crew members. The Netherlands initiated proceedings under UNCLOS, citing violations of freedom of navigation. Despite Russia's limited participation, the tribunal ruled the seizure unlawful and a breach of UNCLOS. ITLOS ordered the release of the vessel and crew, affirming flag-state rights while addressing the balance between maritime sovereignty and peaceful protest.¹⁰⁸ Compensation was awarded to the Netherlands in 2017. This case illustrates the growing tension between traditional admiralty law and international environmental imperatives. As maritime disputes evolve, the legal framework must reconcile commercial interests with the necessity for ecological preservation.

e. Prospects for Harmonisation

Proposals for Integrated Governance at the Intersection of Environmental Law and Admiralty Law refer to the development of coordinated legal, institutional, and policy frameworks that harmonise marine environmental protection obligations with traditional principles of admiralty and maritime law. The concept advocates a governance model in which shipping regulation, marine resource exploitation, vessel liability, pollution control, navigational freedoms, and climate obligations are addressed through a unified and interdisciplinary legal approach.¹⁰⁹ The broader objective is to ensure that maritime commerce and navigation operate consistently with ecological sustainability, marine biodiversity protection, and international environmental governance standards.

f. Harmonised Treaty Interpretation

The proposal to adopt joint interpretative guidelines between UNCLOS, MARPOL, and environmental MEAs calls for the development of harmonised legal principles and coordinated interpretative frameworks capable of aligning the obligations contained in the United Nations Convention on the Law of the Sea (UNCLOS), the International Convention for the Prevention of Pollution from Ships (MARPOL), and related multilateral environmental agreements (MEAs). The objective is to minimise normative fragmentation arising from overlapping or inconsistent regulatory regimes governing marine environmental protection, shipping operations, vessel-source pollution, biodiversity conservation, and flag state responsibilities.¹¹⁰ Such guidelines would assist states, courts, arbitral tribunals, and maritime regulators in interpreting environmental and navigational obligations consistently, particularly regarding enforcement jurisdiction, due diligence standards, pollution control, and climate-related maritime responsibilities. They would

¹⁰⁷ PCA Case No 2014-02, Award on the Merits, 14 August 2015, Permanent Court of Arbitration (under Annex VII of the United Nations Convention on the Law of the Sea (UNCLOS)).

¹⁰⁸ Arctic Sunrise Case (*Netherlands v Russia*), Provisional Measures, ITLOS Case No. 22 (22 Nov 2013).

¹⁰⁹ UNCLOS 1982; IMO, MARPOL and OPRC Conventions; Sands and Peel (n 34); Freestone (n 75) 347.

¹¹⁰ LN Nguyen, 'Expanding the Environmental Regulatory Scope of UNCLOS Through the Rule of Reference: Potentials and Limits' [2021] 52 (4) *Ocean Development & International Law* 419–444.



also strengthen cooperation between the IMO and environmental treaty bodies while promoting legal certainty, regulatory efficiency, and effective ocean governance.

g. Unified Liability Framework

The proposal for a consolidated international liability regime aims to integrate maritime law's limitation of liability with environmental law's principle of full reparation. While traditional admiralty law caps financial exposure to promote trade, environmental law prioritises the polluter-pays principle and complete restitution for ecological damage.¹¹¹ A consolidated framework would harmonise these conflicting approaches by establishing uniform rules for ship-source pollution and offshore activities, ensuring adequate compensation while maintaining commercial predictability.¹¹² By extending existing mechanisms to cover ecological restoration, such a regime would reduce fragmentation, enhance enforcement, and align maritime economic activity with global sustainability and environmental protection standards.¹¹³

h. Strengthened Port State Jurisdiction

The proposal aims to expand port state authority under MARPOL and UNCLOS to enforce broader international environmental obligations on foreign vessels. This expanded mandate would move beyond traditional safety checks to include compliance with biodiversity protection, emissions rules, and ecosystem management.¹¹⁴ Crucially, it extends port state control to activities in Areas Beyond National Jurisdiction (ABNJ). By acting as enforcement gatekeepers, port states could sanction non-compliant vessels through access-based mechanisms, thereby closing governance gaps and improving accountability for global ecological impacts.¹¹⁵

i. Integrated Compliance Mechanisms

The proposal for a joint compliance review body aims to coordinate the International Maritime Organisation (IMO) with environmental treaty secretariats, such as the CBD and OSPAR. This mechanism would monitor and address environmental impacts from international shipping through a unified oversight structure.¹¹⁶ By functioning as a platform for information-sharing and joint enforcement, the body would align maritime regulations with broader environmental obligations to reduce regulatory fragmentation. Ultimately, integrating expertise across these regimes would

¹¹¹ X Chen, *Limitation of Liability for Maritime Claims: A Study of US Law, Chinese Law and International Conventions* (BRILL 2021).

¹¹² LV Vereina, 'International Liability Regime for Pollution of Marine Environment from Ships' [2023] 12 (4) *Moscow Journal of International Law* 68-76.

¹¹³ I Zovko, 'The International Liability and Compensation Regimes Relating to Vessel-Sourced Pollution Damage to the Southern Ocean Marine Environment: Overcoming Inertness in International Law' [2005] 2 (11) *New Zealand Yearbook of International Law* 281.

¹¹⁴ Nguyen (n 111) 426.

¹¹⁵ <<https://iucn.org/resources/issues-brief/governing-areas-beyond-national-jurisdiction>> accessed 23 May 2026.

¹¹⁶ GL Rose, *Compliance Mechanisms Under Selected Multilateral Environmental Agreements* (UNEP/Earth Print 2007).



improve enforcement consistency and facilitate harmonised responses to transboundary marine environmental incidents.¹¹⁷

j. Cross-sectoral Capacity Building

Foster training for maritime and environmental regulators to develop integrated enforcement protocols, particularly in developing states with overlapping risks. Cross-sectoral capacity building strengthens capabilities across multiple sectors simultaneously to improve coordination and governance.¹¹⁸ Instead of isolated expertise, it promotes collaborative learning and inter-agency cooperation among diverse sectors such as environment, energy and transportation. This approach is essential for complex governance areas like climate change and ocean management, where problems transcend institutional boundaries. Ultimately, it involves enhancing knowledge exchange and governance mechanisms to ensure institutions collectively address multidimensional challenges.¹¹⁹

5. CONCLUSION

The intersection of environmental law and admiralty law represents a dynamic and essential frontier in global governance. As this analysis has demonstrated, the synergy between these two legal domains is crucial for addressing the escalating threats of marine pollution, biodiversity loss, and climate change. International frameworks like MARPOL and UNCLOS provide a foundation; yet the practical integration of strict environmental standards with the traditional maritime principles of salvage and limitation of liability remains complex. The challenges of jurisdictional ambiguity and the enforcement of corporate accountability continue to test the resilience of current legal structures. Ultimately, fostering a sustainable maritime future requires a proactive harmonisation of ecological imperatives and commercial realities. Strengthening inter-agency cooperation, refining liability regimes, and embracing technological innovations are vital steps toward ensuring that the vast resources of the oceans are protected for future generations while maintaining the vitality of global trade. The journey toward this balance is ongoing and imperative.

6. RECOMMENDATIONS

1. Strengthen the Integration of Environmental Protection into Admiralty Law National and international maritime legal frameworks should be reformed to ensure that environmental protection is treated as a core objective of admiralty law rather than a peripheral concern. Admiralty courts should adopt interpretative approaches that give due weight to international environmental obligations, particularly those contained in UNCLOS, the MARPOL Convention, and other relevant environmental instruments. This integrated approach would promote sustainable maritime

¹¹⁷ 'Pollution from Shipping Activities' <https://www.ospar.org/work-areas/eiha/shipping/pollution-from-shipping-activities> accessed 23 May 2026.

¹¹⁸ BW Honadle, 'A Capacity-Building Framework: A Search for Concept and Purpose' *Public Sector Performance* (2018) 5 20-35.

¹¹⁹ V Radinger-Peer, S Seebauer and K Gugerell, 'The CAPS Framework for Governance Capacity Building for Local Climate Action' [2025] 27 (3) *Journal of Environmental Policy & Planning* 309–328.



commerce while ensuring that environmental considerations are adequately reflected in the adjudication of maritime disputes.

2. **Enhance Flag State and Port State Enforcement Mechanisms** States should strengthen the implementation and enforcement of their obligations as both flag states and port states by improving vessel inspections, monitoring compliance with international environmental standards, and imposing effective sanctions for pollution-related offences. Greater cooperation among maritime administrations, regional port state control regimes, and the International Maritime Organization (IMO) is essential to address the persistent challenges posed by substandard vessels and flags of convenience, thereby ensuring greater accountability for environmental harm at sea.

3. **Promote International Cooperation and Harmonisation of Maritime Environmental Regulations** Given the transboundary nature of marine pollution and maritime commerce, states should intensify international cooperation through the harmonisation of environmental standards and the effective implementation of multilateral maritime conventions. Existing international legal instruments should be complemented by stronger mechanisms for information sharing, joint enforcement operations, technological cooperation, and capacity building, particularly for developing coastal states. Such collaborative efforts will enhance the uniform application of environmental obligations while reducing jurisdictional conflicts within admiralty law.

4. **Encourage Sustainable Maritime Practices Through Innovation and Regulatory Incentives** Governments, maritime regulators, and industry stakeholders should promote environmentally sustainable shipping by encouraging the adoption of cleaner technologies, alternative fuels, energy-efficient vessel designs, and digital monitoring systems for pollution prevention. Financial incentives, tax reliefs, green shipping certification schemes, and stricter environmental compliance requirements should be introduced to encourage investment in sustainable maritime operations. These measures would reconcile commercial maritime interests with the global objective of protecting the marine environment for present and future generations.