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The Development of International Shipping Standards under the Auspices of the IMO and their Implementation in Practice:

A Case Study of Thailand

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Abstract

The international legal framework related to the regulation of maritime shipping is highly complex and technical. It is also constantly evolving as amendments are made on a regular basis by the relevant treaty bodies to ensure that standards reflect the most up-to-date technological conditions. However, it is an area of law that calls for universal and uniform implementation if it is to achieve its objectives. At the same time, it is evident that some states have limited technical capacity which may hinder their efforts in implementing international shipping standards. Upon this background, the overarching question of this thesis is how can states, especially developing countries, ensure the effective implementation of international shipping law. Answering this question requires an analysis of the international legal framework, with a focus on the work of the International Maritime Organisation (IMO) as the principal international body responsible for international shipping regulation, and the legal and technical challenges facing states in order to understand what opportunities are available to developing countries to assist them in committing to the international standards while ensuring uniform implementation. The analysis of Thailand's legal framework, with particular attention to challenges in the transposition of international shipping standards into the framework and its enforcement, will be investigated to identify the areas needed to be improved.

The analysis shows that the international framework prioritises both the modernisation of treaties and the uniform implementation while recognising the limited technical capacities of developing countries. The thesis observes that full and effective participation in standard setting is vital to ensure that the interests of developing countries are taken into account, but that strong internal communication and coordination between different government departments is key to meeting this objective. There are also underutilised opportunities for developing countries to delay implementation through strategic use of objection procedures where additional time may be required. Another key finding is that the IMO employs managerial strategies in the context of compliance control and eases capacity-related challenges of developing countries in implementation through its oversight

and capacity-building procedures. In particular, the recently adopted IMO Member State Audit Scheme offers opportunities for needs-driven and joined up capacity building to support developing countries. At the same time, the study offers suggestions about how the IMO can improve its practices.

Turning to national implementation, the thesis also suggests that a rigid domestic legal framework can be eased by using inter alia ambulatory references to international standards to allow regular changes to national law, whilst the poor enforcement can be strengthened by employing responsive regulatory strategies. In this connection, the study supports its conclusions by drawing upon the broader literature on regulatory standing setting and compliance, as well as good practice of relevant IMO Member States where innovative tools are employed.

Lay Summary

The international legal framework related to the regulation of maritime shipping is highly complex and technical. It is also constantly evolving as amendments are made on a regular basis by the relevant treaty bodies to ensure that standards reflect the most up-to-date technological conditions. However, it is an area of law that calls for universal and uniform implementation if it is to achieve its objectives. At the same time, it is evident that some states have limited technical capacity which may hinder their efforts in implementing international shipping standards. The overarching question of this thesis is how can states, especially developing countries, ensure the effective implementation of international shipping law. Answering this question requires an analysis of the international legal framework, with a focus on the work of the International Maritime Organisation (IMO) as the principal international body responsible for international shipping regulation, and the legal and technical challenges facing states in order to understand what opportunities are available to developing countries to assist them in committing to the international standards while ensuring uniform implementation. The thesis observes that full and effective participation in standard setting is vital to ensure that the interests of developing countries are taken into account, but that strong internal communication and coordination between different government departments is key to meeting this objective. There are also underutilised opportunities for developing countries to delay implementation through strategic use of objection procedures where additional time may be required. Another key finding is that the IMO employs managerial strategies in the context of compliance control and eases capacity-related challenges of developing countries in implementation through its oversight and capacity-building procedures. Turning to national implementation, the thesis also suggests that a rigid domestic legal framework can be eased by using inter alia ambulatory references to international standards to allow regular changes to national law, whilst the poor enforcement can be strengthened by employing responsive regulatory strategies.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, for any other degree or professional qualification. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

Pakatida Suwonnawong

4 August 2023

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Abbreviations

AFS	International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001, as amended
BWM	International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004
CART	Capacity Building Requirements Table
CASR	Consolidated Audit Summary Report
Chicago Convention	Convention on Civil Aviation, 1944
COLREG	Convention on the International Regulations for Preventing Collisions at Sea, 1972
GBS	Goal-based standards
GEF	Global Environmental Facility
ILC	International Law Commission
IMO	International Maritime Organization
IMO Convention	Convention on the Intergovernmental Maritime Consultative Organization
IMSAS	IMO Member State Audit Scheme
ITLOS	International Tribunal for the Law of the Sea
LEG	Legal Committee
Load Lines	International Convention on Load Lines, 1966
Load Lines Protocol	Protocol of 1988 Relating to the International Convention on Load Lines, 1966
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973
MCA	Maritime and Coastguard Agency
MD	Marine Department
MEPC	Marine Environmental Protection Committee
MoT	Ministry of Transport
MSA 1995	Merchant Shipping Act 1995
MSC	Maritime Safety Committee
NGOs	Non-Governmental Organizations
NWA 1913	Navigation in Thai Waters Act 1913

PCA 1979	Prevention of Ship Collision Act 1979
PSC	Port State Control
RESA 2008	Regulatory Enforcement and Sanctions Act 2008
ROs	Recognised Organisations
SDGs	Sustainable Development Goals
SI	Statutory instrument
SOLAS	International Convention for the Safety of Life at Sea, 1974
SOLAS Protocol	Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978
TCC	Technical Co-operation Committee
TH	Thailand
TONNAGE	International Convention on Tonnage Measurement of Ships, 1969
TVA 1938	Thai Vessel Act 1938
UK	United Kingdom
UN Charter	Charter of the United Nations
UNCLOS	United Nations Convention on the Law of the Sea, 1982
UNCTAD	United Nations Conference on Trade and Development
UNGA	United Nations General Assembly
VIMSAS	Voluntary IMO Member State Audit Scheme

Chapter 1 Introduction

1.1 General background on the development of international shipping standards

As ships can globally sail throughout the oceans, risks of harmful effects on the environment or losses of lives at sea from substandard ships can occur anywhere. The significant increase in the carrying capacity of ships might also pose significant risks to the marine environment.[1] The increasing risks of marine pollution and the safety of life at sea reflect the need for international cooperation among states to control the standards of ships and their operations at sea.

Since the International Maritime Organization (IMO)[2] was established as a specialised agency of the United Nations in 1958 with the aim of facilitating the adoption of "the highest practical standards" relating to maritime safety and (since 1975) ship-source pollution prevention,[3] the IMO has played an important role in the evolution of maritime-shipping treaties. The principal tools of the IMO to achieve its objectives are its ability to provide a forum for negotiations and standard setting for all Member States and to invite non-state actors with technical expertise to participate in treaty-making processes. To date, more than fifty treaties have been developed by the IMO[4]. These treaties can be categorised into two separate groups: those regulating shipping standards relating to maritime safety and ship-source pollution prevention, and those relating to liabilities arising from maritime incidents. The IMO treaties belonging to the first group are the particular focus of this thesis. Among these

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[1] United Nations Conference on Trade and Development, *50 Years of Review of Maritime Transport*, 1968-2018: Reflecting on the past, exploring the future (United Nations 2018), at p.5

[2] The IMO was established in 1948 by the Convention on the Inter-Governmental Maritime Consultative Organization (IMCO Convention) as the "Inter-Governmental Maritime Consultative Organization" (IMCO). In 1975, the IMCO Convention was amended to change the IMCO Convention to the Convention on the International Maritime Organization (IMO Convention), whereas the name of the Organisation has also been changed to "International Maritime Organization" (IMO). See Convention on the Intergovernmental Maritime Consultative Organization (as amended) (adopted on 6 March 1948, entered into force 17 March 1958) 289 UNTS 3 (IMO Convention). See also Intergovernmental Maritime Consultative Organization (IMCO), *Resolution A.358(IX) Amendments to the IMCO Convention*, (1975)

[3] IMO Convention, Article 1, 2

[4] International Maritime Organization (IMO), 'Introduction: Adopting a convention, Entry into force, Accession, Amendment, Enforcement, Tacit acceptance procedure' (2020) <http://www.imo.org/en/About/Conventions/Pages/Home.aspx> accessed 10 February 2020

treaties, the most significant standard-setting treaties include the International Convention for the Safety of Life at Sea, 1974 (SOLAS) and the Protocol of 1988 Relating to the International Convention for the Safety of Life at Sea, 1974 (SOLAS Protocol), the Convention on International Regulations for Preventing Collisions at Sea, 1972 (COLREG), the International Convention on Load Lines, 1966 (Load Lines) and the Protocol of 1988 Relating to the International Convention on Load Lines, 1966 (Load Lines Protocol), the International Convention on Standards of Training Certification and Watchkeeping for Seafarers, 1978, as amended in 1995 (STCW), the Protocol of 1978 relating to the 1973 International Convention of the Prevention of Pollution from Ships (MARPOL) and the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM).

Yet, these treaties are not static. The general application and technical character of international shipping standards, to some extent, differ from other international standards due to the dynamic nature of shipping activities that occur across the oceans. Hence, technical standards have been developed through particular international law-making techniques to universally enhance maritime safety and prevent pollution from ships. By employing several standard-setting methods and soft law instruments, IMO treaties have been developed in order to respond to ongoing maritime incidents, new developments, and innovative technologies. This process is led by IMO Member States in order to ensure that treaties serve the interests of states[5] and, ultimately, receive widespread acceptance from states.

To achieve the aims of the IMO, standard setting by itself may not be enough to ensure uniform practise under international shipping standards. The implementation of IMO treaties and their amendments is vitally important for the IMO in order to ensure that international shipping standards are uniformly applied by flag states. The term "implementation" herein refers to the transposition of international standards into domestic law and their enforcement, which this thesis refers to as "the act or process of compelling compliance with a law, mandate, command, decree, or

[5] Abram Chayes and Antonia Handler Chayes, 'A Theory of Compliance', in *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press 1996), at p. 3-9

agreement"[6] through national monitoring, measures, and prosecution. It is also worthwhile to note that the term "compliance" hereinafter refers to the behaviour of states to make international standards effectively meet their objectives.[7]

Due to the fact that the transportation of goods by ships has long been one of the most efficient forms of transport for international trade, substandard ships have continually been attractive to numerous individuals having interests in maritime shipping as they could save costs and increase competitive advantages for individuals in the shipping market.[8] Yet, over time, substandard ships have caused many maritime incidents and risks of losses at sea.[9] This situation underlines the need to ensure that all commercial ships have been built and operated in line with international shipping standards, reflecting the need for the universal and uniform implementation of IMO treaties, which have long been recognised by the IMO as the primary responsibility of flag states.[10]

1.2 Challenges of states in the implementation of international shipping standards

Historically, the IMO Constitution was initially established in 1948 in Geneva, where thirty-two countries, most of which are developed countries.[11] The Constitution was adopted by twenty-one countries with a shipping capacity exceeding one million tons.[12] Clearly, most of them are also developed countries. However, after the IMO was established, developing countries increasingly became major members of the IMO. In 1974, the structure of the IMO, particularly the Council, which is the policy-making institutional body, was changed in response to the growth of memberships

[6] Bryan A. Garner*, Black Law's Dictionary* (8th Edition), 2004. The use of this term in this thesis will be discussed in section 3.2 in Chapter 3.
[7] The use of this term in this thesis will be discussed in section 3.2 in Chapter 3.
[8] Elisabeth R. DeSombre, 'Globalization, Competition, and Convergence: Racing to the Middle?', in *Flagging Standards: Globalization and Environmental, Safety and Labor Regulations at Sea* (Massachusetts Institute of Technology 2006), at p. 14-22
[9] Moritaka Hayashi, 'Toward the Elimination of Substandard shipping: The Report of the International Commission on Shipping' (2001) 16 International Journal of marine and Coastal Law 501, at p. 502
[10] International Maritime Organization, *Resolution A. 682(17) Regional Co-Operation in the Control of Ships and Discharges*, (1991), preamble
[11] Department of State (the United States of America), Toward A World Maritime Organization (Department of State 1948), at p. 17
[12] Agustín Blanco-Bazán, 'IMO-Historical highlights in the life of a UN Agency' (2004) 6 Journal of the History of International Law 259, at p. 262

from developing countries by increasing the representation of developing countries in the Council.[13]

In 2020, almost half of commercial ships throughout the world were registered in developing countries, which also have more than two-thirds of the world's shipping carrying capacity.[14] This high cargo-carrying volume reflects that this particular group of states is a significant actor in strengthening and maintaining maritime safety and preventing pollution from ships, although substandard ships may not only be those registered in developing countries[15]. Yet, the participation of developing countries in world maritime shipping causes challenges to the achievement of the IMO in promoting the universal and uniform implementation of international shipping standards, as discussed in the following paragraphs.

Bearing in mind that international shipping standards are highly technical in nature and have been regularly developed into a complex international legal framework[16], their implementation and oversight therefore require the technical capacities of competent legal drafters and regulators, particularly those possessing technical and/or scientific knowledge and expertise relating to the international standards, in particular IMO conventions. However, not all countries have sufficient technical capacity to implement the international standards. Developing countries, or sometimes so-called "less developed countries," are the particular group of states generally recognised by the United Nations and other international agreements, upon different criteria subject to certain contexts[17], as the states are supposed to have poor capacities to perform international agreements due to their economic development and being in need of assistance. Hence, this particular group of states

[13] C.P. Srivastava, 'IMCO's Adapting Structures to Meet Present-Day Requirements' (1976), 13 UN Chronicle 46, at p. 48-49

[14] The term "developing (countries)" is referred to countries that are categorised with respect to economic development by the United Nations. See examples in United Nations Conference on Trade and Development, *Review of Maritime Transport 2020*, (2020), at p. 41; United Nations, 'Statistical annex: Country classifications', in *World Economic Situation and Prospects* (United Nations 2020), at p. 166.

[15] For example, the well-known sunken oil tanker *Erika* causing disastrous pollution from oil spilled near a coast of Spain was registered in Malta, a European developed country. See Justine Wene, 'European and International Regulatory Initiatives Due to the Erika and Prestige Incidents' (2005) 19 Australian and New Zealand Maritime Law Journal 56, at p. 57

[16] See the development of international shipping standards in Chapter 2.

[17] See the discussion on the term "developing countries" in Chapter 4.

should be significantly concerned and prioritised for the promotion of the uniform implementation of international shipping standards.

The problem of implementation for developing countries in the context of international shipping regulation is compounded by the non-discrimination principle, which means that developing flag states are expected to meet the same standards as developed flag states. This principle is reflected in the IMO Convention.[18] The IMO[19] has also strongly objected to the principle of common but differentiated responsibility (CBDR)[20] which recognises the different capacities of developed and developing economies[21] and has been applied by some other environmental treaties[22]. In practice, the particular context of shipping regulations, so-called flag neutrality [23] , contributes to the inapplicability of the CBDR. As ships are able to change their flags with the permission of flag states, the different application of international standards depending on whether a ship is registered in a developing or a developed country would allow ships to avoid applying high standards through 'flag shopping'.[24]

Instead, the IMO has developed treaties by providing opportunities for all states, regardless of their economic development, to express their interests and intentions throughout the treaty-making process. Although many states, including developing countries, have participated in the development of international shipping standards

[18] IMO Convention, Art.1(b)

[19] The Secretary General of the IMO affirmed that the non-discrimination principle is the underlying principle of the IMO treaties and strongly argued that the application of the CBDR could devalue this principle. This affirmation has also been supported by major IMO member states. See International Maritime Organization (IMO), *MEPC 57/21 Report of the Marine Environment Protection Committee*, (2008) 47, at para.4.73. See also International Maritime Organization (IMO), *MEPC 61/24 Report of the Marine Environment Protection Committee on Its Sixty-First Session*, (2010), at para.5.48

[20] This principle was first introduced by the Stockholm Declaration of the United Nations Conference on the Human Environment in 1972 and later reaffirmed by the Rio Declaration on Environment and Development in 1992. See The United Nations, *A/CONF.48/14/Rev.1 Report of the United Nations Conference on the Human Environment* (1972) (Stockholm Declaration), at p. 3-5. See also United Nations, *A/CONF.151/26/Rev.I (Vol. I) Report of the United Nations Conference on Environment and Development* (1993), Annex I (Rio Declaration)

[21] Stockholm Declaration (Ibid.), Principle 23
Rio Declaration (Ibid.), Principle 6, 7, 11

[22] United Nations Framework Convention on Climate Change (adopted on 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 (UNFCCC), Preamble. See also Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted on 11 December 1997, entered into force 16 February 2005) 2303 UNTS 162 (Kyoto Protocol), Art.10

[23] James Harrison, 'Recent Developments and Continuing Challenges in the Regulation of Greenhouse Gas Emissions from International Shipping' (2013) 27 Ocean Yearbook 359, at p. 364

[24] Ibid., at p. 366-367

through the IMO and ratified major IMO treaties related to maritime safety and pollution prevention from ships, in practice, states, particularly developing countries, have faced challenges in fully implementing these treaties. These challenges will be discussed briefly below to provide context for the analysis conducted in subsequent chapters of the thesis.

The first challenge is the ineffective participation of states, especially developing countries, in treaty-making, which may also pose an institutional challenge to the IMO. Some states may not consistently engage in the treaty negotiations[25]. Some states, such as Thailand, did not have a domestic arrangement to ensure the representation of domestic interests in the standard-setting process.[26] Thailand, shortly before the beginning of the meetings, normally nominates any officials who will take part in the standard-setting and, in their discretion, may arrange the informal consultation between the Marine Department (MD) as the main enforcement agency, the Maritime Attaché, who is assigned to participate in all IMO meetings, including the standard-setting processes, and analyse and suggest the directions of Thailand in the treaty-making and policy-making processes, to the Ministry of Transport (MoT) and MD, and any other relevant agencies.

Secondly, the circulation and notification of standard-setting outcomes through the IMO electronic databases also require efficient management of the national maritime administration[27], although it is environmentally friendly and could reduce the cost of documentation. Some countries, including Thailand, have not established effective internal information systems to ensure that regulators and enforcement agencies acknowledge all relevant information appearing in the standard settings. These

[25] The data is available in the "Country Maritime Profile" in the GISIS. See International Maritime Organization (IMO), *Resolution A.1029(26) Global Integrated Shipping Information System (GISIS)*, (2010)

[26] Until 2020, Thailand had not established an electronic circulation system in support of the IMO electronic system. In practice, the internal preparation process for the IMO meetings has not formally been established in Thailand, and the MD officials have not been assigned specifically to follow-up IMO meetings and other publications. In 2021, the state established this sort of system before being audited by the IMO in 2023.

[27] See the electronic databases of the IMO in International Maritime Organization (IMO), *Circular Letter No.2855 Enhanced IMODOCS website*, (2008). See also International Maritime Organization (IMO), *Circular Letter No.3417 Posting of certified copies of IMO treaties and amendments thereto on the IMODOCS website*, (2013)

problems could therefore reduce the possibility of ensuring the uniform implementation of international shipping standards.

Thirdly, tacitly amended international standards can take effect without the explicit acceptance of treaty parties. These standards become uniformly applicable unless a state objects or opts out within the notification period specified in the treaties if national acceptance is not granted. In practice, only a few states have taken the opportunity to opt out of or object to treaties or their amendments[28]. Even though these standards will apply to states on an international level, some actions within the country are necessary to give them domestic effect[29]. This leads us to a consideration of the challenges of implementation arising from difficulties relating to the interaction between international shipping standards and national legislation. The inadequate implementation of IMO treaties has resulted partly from the legislative challenges of state parties to the treaties. These challenges are caused by the complexity of the domestic legal framework and the technical and financial incapacities to incorporate international standards into national legislation.[30] These domestic challenges, on the other hand, also reflect the regulatory challenges of the IMO. The challenges of some states in the national enforcement of international shipping standards result from the lack of capacities of states. The insufficient, or even lack, national enforcement of the incorporated shipping standards of some countries also contributes to the lack of effectiveness of the IMO. These challenges have clearly been acknowledged by the IMO. For instance, in 2007, following a voluntary audit, it was reported that Thailand could not fully implement the important treaties, particularly due to the delay in the incorporation of amendments to the treaties into national laws and the technical inabilities of the administration.[31] The national laws have also been inadequately enforced, partly because of a lack of

[28] International Maritime Organization, *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 depository or other functions,* (2023)
[29] International Maritime Organization, *Circular Letter No.4028 IMO Member State Audit Scheme – Consolidated Audit Summary Report (CASR)*, (2019)
[30] Alan Khee-Jin Tan, 'The Dynamics of the Law-Making Process: Actors, Arenas and Interests' in James Crawford and John S. Bell FBA (ed), in *Vessel-Source Marine Pollution* (Cambridge University Press 2006), at p. 232-235
[31] International Maritime Organization, *Voluntary IMO Member State Audit Scheme: Audit of Thailand (Final Report)*, (2007)

technical expertise and budgetary shortfalls.[32] Nor is this a problem only for Thailand. A recent Consolidated Audit Summary Report (CASR) [33] produced by the IMO revealed that many states had not fully implemented IMO treaties. These reports demonstrate that both states and the international framework require further development. States need improved internal procedures and practices to effectively implement international shipping standards, while the framework itself could be enhanced to facilitate greater state participation and promote universal and uniform practices. This raises the critical question: how should the international community, acting through the IMO, address the issue of states failing to effectively implement international shipping standards?

These are important questions that deserve attention, not only because they can lead to more effective and uniform implementation of international shipping standards but also because they reflect a growing emphasis in the international law of the sea on the central role of developing countries, representing a majority of the world's population[34], in the development of the law of the sea.[35]

This thesis is not only motivated by an identified abstract problem but also by the personal experience of the author, who is a civil servant directly involved in the transposition of international shipping standards into the Thai maritime legal framework and its enforcement. This research has also been financially supported by the Thai government with the aim of improving the state's practices toward international standards. With these in mind, it is hoped that the thesis will also offer ideas and constructive guidance for government officials involved in the implementation

[32] Tan (n 30), at p. 232-235

[33] See the details in IMO (Final report) (n 31).

[34] See the growing number of the world's population, based on economic development in United Nations Conference on Trade and Development, 'Now 8 billion and counting: Where the world's population has grown most and why that matters' (2022) <https://unctad.org/data-visualization/now-8-billion-and-counting-where-worlds-population-has-grown-most-and-why> accessed 20 July 2023

[35] The role of developing countries in the development of the law of the sea is recognised through the concern of the United Nations. See, e.g., United Nations General Assembly, A/RES/77/248 Oceans and the law of the sea, (2023), preambular para.17, para.10-39; for the emergence of the community interest, which recognises the membership of developing countries as a part of the community in the development of the law of the sea, see Richard Barnes, David Freestone, and David M Ong, 'The Law of the Sea: Progress and Prospects' in *The Law of the Sea: Progress and Prospects* (Oxford University Press 2006), at p.11-15.

of international shipping standards. In part, this motivation explains the focus on Thailand as a case study, although it should be emphasised that many of the problems faced by Thailand are illustrative of the broader issues faced by developing countries, and the study draws upon broader data concerning compliance challenges in order to inform the analysis and offer more general reflections on the subject.

1.3 A theoretical background to treaty implementation

The non-uniform implementation of international shipping standards developed by the IMO reflects the failure of states to implement their international obligations under the relevant IMO treaties. It is necessary to figure out how we should respond to this situation, bearing in mind that the domestic challenges of states in the implementation involve the technical incapacities and difficulties of transposing the international technical standards into domestic legal frameworks and enforcing national legislation. The challenges in the implementation also reflect that the insufficient implementation of the treaties, particularly amendments to the treaties, may not result from intentional inaction by states. Therefore, these problems could not simply be solved by forcing the states directly to implement the international standards. It is also worthwhile to note that the non-uniform implementation of international shipping standards developed by the IMO might also include that of countries that are non-party to relative IMO treaties through the rules of reference, particularly those so-called "generally accepted international rules and standards" under the United Nations Convention on the Law of the Sea (UNCLOS).[36] As such, the challenges facing countries in the implementation of international shipping standards may not be limited to those of parties to the treaties.

At the outset, it is necessary to identify the nature of the obligation on flag states when it comes to the implementation of international shipping standards. Major IMO treaties explicitly require state parties to implement international shipping standards while also signifying the responsibility of state parties to perform treaties with due diligence.[37] The latter responsibility, although not clearly expressed in the treaties,

[36] For detailed discussions on the rules of reference, see section 2.5 in Chapter 2.

[37] International Convention for the Safety of Life at Sea (adopted on 1 November 1974, entered into force 25 May 1980) 1184 UNTS 278 (SOLAS), Art.1; International Convention on Load Lines (adopted on 5 April 1966, entered into force 21 July 1968) 640 UNTS 133 (Load Lines), Art.1; International

has been recognized by international courts and tribunals as embedded in several treaties with respect to environmental protection and the law of the sea.[38] This due diligence obligation to perform treaties includes "the adoption of appropriate rules and measures and a certain level of vigilance in their enforcement."[39] Samuel[40] also observed the identical terms showing the due diligence obligation to conduct national implementation in compliance with treaties, which are, for example, "to ensure," [41] "to take those necessary [measures] to ensure," [42] or "to prevent pollution."[43] The same analogy should also be applied to the responsibility of flag states in implementing international shipping standards relating to maritime safety and ship-source pollution prevention. Several IMO treaties, such as SOLAS[44], STCW[45] and MARPOL[46], also have these identical terms in the provisions relating to the

Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 as amended (adopted on 7 July 1978, entered into force 28 April 1984) (STCW), Art.1;International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL), Art.1, 4(4); International Convention for the Control and Management of Ships' Ballast Water and Sediments (adopted on 13 February 2004, entered into force 8 September 2017) (BWM), Art.2(1), (7).

[38] See, e.g., *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, I.C.J. Reports 2010, p.14, at p.79, para.197; See another example in *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission, Advisory Opinion, 2 April 2015, ITLOS Reports 2015*, p.4, at p.41, para. 130*c*.

[39] This clarification of the due diligence obligation of a (flag) state as stipulated in the United Nations Convention on the Law of the Sea (UNCLOS) was provided by the International Court of Justice in the *Pulp Mills on the River Uruguay* case in 2010 and later referred by the International Tribunal of the Law of the Sea in 2015. See *Pulp Mills* (Ibid.)

[40] Katja L.H. Samuel, 'The Legal Character of Due Diligence: Standards, Obligations, or Both?' (2018/2019 Forthcoming) Central Asian Yearbook of International Law 1, at p. 8-9

[41] The Tribunal observed that the duty of flag states to ensure the safety at sea requires due diligence performance of article 94 of the UNCLOS. See the Advisory Opinion (n 36), at p. 36, 40, para. 116 and 129. See also United Nations Convention on the Law of the Sea (adopted on 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS), Art. 94, at para.3

[42] UNCLOS, Art 94, at para.4

[43] The Court identifies the due diligence obligation of a state upon this term in the primary rule of the 1975 Statute of the River Uruguay. See *Pulp Mills on the River Uruguay* (n 36), at 79, para. 195-197. See also The Statutes of the River Uruguay (adopted 26 February 1975, entered into force 18 September 1976) 1295 UNTS 340, Art. 41

[44] The SOLAS requires state parties to " undertake to promulgate all laws, decrees, orders and regulations and to take all other steps which may be necessary to give the present Convention full and complete effect, so as to ensure that, from the point of view of safety of life, a ship is fit for the service for which it is intended". See SOLAS, Art.1(b).

[45] The STCW requires state parties to "undertake to promulgate all laws, decrees, orders and regulations and to take all other steps which may be necessary to give the Convention full and complete effect, so as to ensure that, from the point of view of safety of life and property at sea and the protection of the marine environment, seafarers on board ships are qualified and fit for their duties". See STCW, Art.1(2).

[46] MARPOL requires state parties to "undertake to give effect to the provisions of the present Convention and those Annexes thereto by which they are bound, in order to prevent the pollution of

implementation of the treaties, meaning that flag states are also required to use their best attempts to oversee treaty compliance by ships flying their flags. Hence, the breach of international shipping standards by each individual ship may be a wrongful act by the flag state if the flag state has not adopted national legislation and appropriate measures and enforced them vigilantly. However, it does not follow that a flag state is always responsible for every violation of shipping standards by vessels flying its flag. Indeed, even though a series of breaches by ships flying the flag state have been found, they just signal the possibility of a wrongful act by the flag state.[47] The focus of flag state compliance is thus on the systems that a flag state has in place to implement and enforce the standards, and it is only when there is a systemic failure that a flag state may be said to have breached its international obligations.

1.4 The approach of the thesis

With these challenges in mind, the inadequate implementation of international shipping standards relating to maritime safety and the prevention of pollution from ships is the main issue of concern in this thesis. Overall, this thesis will investigate and analyse the challenges of IMO member states, particularly developing countries, as flag states in implementing IMO treaties and their amendments, with a focus on the transposition of international shipping standards relating to maritime safety and ship-source pollution prevention into the national legal framework and their enforcement through dispute settlement and compliance mechanisms, to discover opportunities to improve the practice.[48]

The overarching research question of the thesis is "How can states, especially developing countries, ensure the effective implementation of the constantly evolving international framework related to maritime shipping in order to strengthen constructive international cooperation?" Various sub-questions arise in order to answer the main research question:

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the marine environment by the discharge of harmful substances or effluents containing such substances in contravention of the Convention". See MARPOL, Art.1(1).

[47] Yoshinobu Takei, 'Assessing Flag State Performance in Legal Terms: Clarifications of the Margin of Discretion' (2013) 28 The International Journal of Marine and Coastal Law 97, at p. 132-134

[48] Saiful Karim, 'Implementation of the MARPOL Convention in Developing Countries', (2010) 79 Nordic Journal of International Law 303, at p. 319-320

(1) How do international shipping standards evolve? What opportunities do states have to participate in the development of international shipping standards? And what possibilities may states have in order to help them commit to new standards?

(2) To what extent does the IMO take into consideration the interests of all states, including developing states, in its processes and procedures?

(3) What are the challenges for states to effectively implement IMO treaties, and how can they overcome these domestic challenges through better design of their internal mechanisms to implement international shipping standards?

(4) How can states, especially developing states, strengthen enforcement of the national framework with a view to ensuring effective implementation of international shipping standards?

Questions (1) and (2) focus on the international framework. In this respect, the thesis will largely employ a doctrinal method with a focus on the legal sources and the official materials of the IMO. However, in order to illustrate some of the key concerns being discussed in the thesis, it will also integrate practical insights by using a case study approach focused on the case of Thailand to represent the practical challenges of developing countries. Among the 173 Member States, Thailand occupies the thirty-third position in terms of fleet size, showing its status as a developing country with a substantial maritime presence.[49] This positioning places Thailand above the global median for shipping gross tonnage. By undertaking an investigation into the practical challenges faced by the state, valuable insights can be gained into the common challenges encountered by developing states, including Thailand. The findings of this analysis will enhance the effectiveness and applicability of the recommendations proposed for the improvement of the International Maritime Organization (IMO) and the practices of individual states, as presented in this thesis.

When it comes to investigating how to overcome certain legal challenges of implementation in order to answer questions (3) and (4), the thesis will also use a comparative method by exploring the practices of the UK to present a good practice

[49] The gross tonnages of Associated Members, which are those of Hong Kong (China, The Faroe, and Macao (China) are excluded. See International Maritime Organization, A 32/23 Election of Members of the Council, as Provided for in Article 16 and 17 of the IMO Convention (2021), Annex 1.

of implementation. While the UK is a developed rather than a developing country, lessons can be learned from this comparison in order to inform legal mechanisms that can overcome some challenges faced by developing countries, such as Thailand.

In answering these research questions, the thesis hopes to fill several gaps in the literature relating to the development and implementation of international shipping standards. Although the importance of the institutional mechanisms of the IMO in developing international shipping standards has been studied by some scholars, such as Boyle,[50] Boyle and Chinkin,[51] Karim,[52] and Alvarez,[53] they still leave a question on how treaties can strengthen international cooperation among states in order to strengthen maritime safety and prevent marine pollution, and particularly how developing countries can be better integrated. Chircorp illustrates the overview picture of compliance mechanisms provided by the IMO, but without reflection on the practical challenges of states in the implementation of IMO treaties and suggestions for states to fulfil their roles as parties to the treaties and their contributions to the achievement of the IMO[54]. Furthermore, the studies of Basaran[55] and Karim[56] on the evolution of IMO treaties and implementation of treaties developed by the IMO roughly considered the general evolution of IMO treaties and implementation of the treaties. Recently, Sun's literature presents the law-making process of the IMO and relevant actors in standard-setting and also examines the compliance mechanisms for regulating international shipping standards with some suggestions for improvement.[57] What this thesis seeks to add

[50] Alan E. Boyle, 'Saving the World? Implementation and Enforcement of International Environmental Law Through International Institutions' (1991) 3 Journal of Environmental Law 229, at p. 231-238

[51] Alan Boyle and Christine Chinkin, 'Multilateral Law-Making: Diplomatic Processes', in *The Making of International Law* (Oxford University Press 2007), at p. 131-134

[52] Saiful Karim, *Prevention of Pollution of the Marine Environment from Vessels* (Springer International Publishing Switzerland 2015)

[53] Jose' E. Alvarez, 'The Varied Forms of International Institutional Law', in *International Organizations as Law-makers* (Oxford University Press 2005), at p. 217-222

[54] Aldo Chircorp, 'The quest for universality and uniformity: theory and practice of international maritime regulation' in Jason Chuah (ed), in *Research Handbook on Maritime Law and Regulation* (Edward Elgar Publishing 2019), at p. 140-143

[55] Ilker Basaran, 'The Evolution of the International Maritime Organization's Role in Shipping' (2016) 47 Journal of Maritime Law and Commerce 101, at p. 104-115

[56] Saiful Karim (n 48), at p. 304-337

[57] 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), at p. 93-111

to this literature is an emphasis on a coordinated approach to integrating developing countries into the IMO framework, which links legal development, compliance review, and technical assistance.

None of these studies have considered how the international legal framework interacts with the domestic legal framework. By looking at practical tools that can be applied by developing countries, based upon a review of good practices from other countries that can be feasibly employed by a developing country, the thesis seeks to show how domestic legal reform can also assist in treaty implementation.

Therefore, this thesis will contribute to academic research on the evolution of the international framework for maritime shipping and will also provide suggestions for states, especially developing states, to improve the implementation of the international framework substantially and for the IMO to enhance its work to ensure that treaties will be effectively implemented by states.

1.5 The outline of the thesis

The first part of the thesis will focus mainly on the development of the international framework for regulating maritime shipping; therefore, it will rely on primary sources of treaties and documents produced by the IMO, as well as related academic literature. This part will consist of three chapters: (1) the development of international shipping standards under the international framework; (2) the enforcement of the international legal framework; and (3) the mechanisms under the international legal framework for strengthening the technical capacity of states for implementation.

The first chapter of this Part will explore and analyse how the IMO framework has evolved towards promoting universal and uniform practices. This chapter will consider the functions of the IMO, and it will then examine and analyse the performance of these functions in treaty-making and amendment processes. The opportunities for states and non-state actors to participate in the work of the IMO will also be investigated. This chapter will present the evolution of the international framework and illustrate the approaches of the IMO to promote the adoption and implementation of international shipping standards, focusing on the opportunities

given to states in participating in the law-making process. The purpose of this analysis is to identify potential challenges for states, especially developing countries, lacking sufficient capacity for implementation arising from standard-setting approaches and processes. Moreover, lessons from other international legal frameworks, particularly those employing the tacit acceptance procedure, will also be explored in order to suggest strategies for states to improve their practices.

The second chapter will examine the mechanisms provided by the IMO and treaties themselves in order to oversee the implementation of IMO treaties. These compliance mechanisms include those driven by individual states, which are dispute settlement and port state control, and those developed by the IMO, which are self-reporting, the White List, and the audit scheme. The purpose of this chapter is to analyse how these compliance mechanisms have been applied and promoted for the uniform implementation of international shipping standards and how they address and overcome challenges in developing countries.

This thesis seeks to identify ways to promote the uniform implementation of international shipping standards, with a particular focus on the challenges faced by developing countries. These countries often lack the capacity to implement the evolving international maritime framework. The final chapter will analyse the mechanisms established to address these capacity challenges, which significantly hinder the uniform implementation of international shipping standards. This chapter will examine the capacity-building mechanisms within the international legal framework for maritime shipping, focusing particularly on those targeting developing states. These mechanisms provide crucial assistance in overcoming capacity constraints and promoting the uniform implementation of international standards.

This chapter will begin with the general concept of capacity-building as a management mechanism to promote uniform implementation of treaties and explore the available approaches to providing capacity-building for states. Then, the arrangement of capacity-building by UNCLOS and IMO will be illustrated to present the current approaches to strengthening implementation capacities of states and provide suggestions for the IMO to further improve the existing capacity-building programme of the Organisation and for states to develop national capacity-building programme,

which could also contribute to the effectiveness of the capacity-building arrangements provided by the IMO. The aim of this chapter is to show how the international community, operating through the International Maritime Organization (IMO), acknowledges the capacity-related challenges encountered by developing countries and supports states in enhancing their implementation capacity.

The first part will therefore provide an overview of the mutual cooperation and expectations of the international community with respect to maritime shipping and how it promotes maritime safety and marine environmental protection through the treaties and the IMO's institutional bodies. It will also provide significant guides for states to improve the implementation of the international framework through their effective participation in international processes.

The second part of this thesis will delve into the national implementation of the international framework for maritime shipping. This section will specifically focus on the challenges faced by states that adhere to the dualist approach when incorporating IMO treaties into their domestic legal systems. These states may encounter difficulties in enacting national legislation to fulfil the obligations of these treaties, particularly within the tight timeframes imposed by tacit amendment procedures. However, the thesis may also contribute to other states relying on the monist or other approaches that require putting in place national legislation to implement international shipping standards. By relying on primary sources and formal documents, especially national laws and policies and academic literature, this part will use a case study of the domestic implementation of IMO treaties in Thailand, a developing country that relies on the dualist approach for making national legal effects of international shipping standards. There will be two chapters: (1) the transposition of international shipping standards into the national legal framework, and (2) the enforcement of the national legal framework.

The first chapter of this part will begin with chapter five, which will explore challenges in implementing IMO treaties faced by states in general and those of Thailand as a particular case study, with a view to explaining challenges to countries. Indeed, it is worth emphasising that such challenges are faced by various states and not just developing countries. This chapter will then conduct a comparative analysis of

transposition techniques in order to identify good practices relating to the transposition of international shipping standards into the national legal framework.

Chapter six will then examine the national enforcement of the treaties in practice by investigating the challenges of states in general and those of Thailand as a case study. This part will also take into consideration the practices of the UK as another dualist state, which is also an important maritime state, and whose innovations in the transposition of IMO shipping standards could offer a good practice model for Thailand and other states that also have similar constitutional structures.[58]

This thesis will also delve into the challenges of states with respect to the implementation of other international frameworks that also develop technical standards, for instance, the civil aviation framework, which regulates standards relating to the safety of air transport[59], and discover how Thailand, as a developing country that is a party to this framework, has dealt with problems that were also found under the IMO framework.

Overall, the second part of this thesis will reveal the challenges states face in implementing international shipping standards, but the analysis of national challenges for the implementation of IMO treaties in each section will result in the identification of strategies for states to overcome these challenges.

Finally, the last chapter will be the conclusion of the whole thesis. The research questions will be answered with suggestions, typically for developing countries.

[58] The models of practices in this thesis will include the practices of states having good records of the implementation of IMO treaties based on the results of the IMO Voluntary Member State Audit Scheme.

[59] Similar to the shipping regulation regime, the Convention on International Civil Aviation, 1944 (Chicago Convention) also allows flag-of-convenience states to register aircrafts which belong to other nationals. Moreover, the Chicago Convention also employs the tacit acceptance procedure which allows state parties to opt-out from the amendments of international standards in the treaty.
See Convention on International Civil Aviation (adopted 7 December 1944, entered into force4 April 1947) 15 UNTS 295 (Chicago Convention), Art.17, 37, 38, 54, 90. See also Z. Joseph Gertler, 'Nationality of Airlines: A Hidden Force in the International Air Regulation Equation' (1982) 48 The Journal of Air Law and Commerce 51, at p. 66-70; Federation ITW, 'Flags of convenience in civil aviation' <https://www.itfglobal.org/sites/default/files/resources-files/flags_of_convenience_in_civil_ aviation.pdf> accessed 1 February 2021. See also The European Cockpit Association, 'New era for aviation - Flag of Convenience < https://www.eurocockpit.be/news/new-era-aviation-flags-convenience> accessed 1 February 2021.

Moreover, suggestions for the international community to improve their existing approaches to standard-setting and enforcement are also provided.

Part I The development of international shipping standards

Chapter 2 IMO and the development of international shipping standards

2.1 Introduction

Until the present, over fifty treaties regulating shipping standards have been developed by the International Maritime Organization (IMO) to enhance maritime safety and protect the marine environment. However, achieving these global goals depends heavily on the universal and effective implementation of these treaties. Therefore, the IMO's work in developing regulations, utilising treaty-making techniques, employing a consent-based system, and considering the implications for member states are crucial to ensuring global maritime safety and pollution prevention through consistent and uniform practices.

This chapter will explore the development of maritime treaties prior to and after the establishment of the IMO, with a focus on the institutionalisation of the standard-setting functions executed through the IMO organs and standard-setting methods of the IMO. This chapter will also provide a background for the research to further investigate and analyse the development of shipping standards under the auspices of the IMO and their practical implementation by states, with the aim of offering suggestions for effective implementation of international shipping standards, especially for developing countries.

2.2 Pre-IMO: The historical development of international shipping standards

International shipping standards related to maritime safety (and, to a lesser extent, ship-source pollution prevention) had been developed numerous decades prior to the establishment of the IMO in 1958.[1] During this time, many shipping standards were established by bilateral and multilateral agreements. The development of international shipping standards relied mainly on formal procedures, particularly a meeting between a few states or a diplomatic conference. The regulatory standards adopted by a majority vote of states at a conference were normally brought into force by formal consent from states.

[1] The establishment of the IMO will be explored in the following section.

In 1863, the Regulations for Preventing Collisions at Sea were introduced by a bilateral agreement between the United Kingdom (UK) and France.[2] The regulations related to maritime safety, and they were applied to UK and French ships and all ships navigating in the UK and French maritime jurisdictions. Later, these regulations were also unilaterally applied by thirty countries, including major maritime countries such as the United States of America (US) and Germany.[3]

International shipping standards have also been developed by diplomatic conferences since the late eighteenth century. The Regulations for Preventing Collisions at Sea had been further developed from the 1863 Regulations for Preventing Collisions at Sea by the conferences held in the US and Belgium in 1889 and 1910, respectively.[4] In 1914, the Regulations for the Safety of Life at Sea (SOLAS 1914)[5] were first proposed by the UK at the conference hosted by the UK in response to the *Titanic* incident, the sinking of the British passenger ship carrying over 1,500 passengers in 1912.[6] This conference was attended by thirteen countries, particularly major maritime states that registered ships and had port services, such as Germany, Belgium, the US, France, Russia, the UK, Italy, Norway, the Netherlands, and Canada.[7]

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[2] Harvey B. Silverstein, 'Technological Politics and Maritime Affairs - Comparative Participation in the Intergovernmental Maritime Consultative Organization' (1976) 7 Journal of Maritime Law and Commerce 367, at p. 368.

[3] International Maritime Organization (IMO), *Focus on IMO: IMO and The Safety of Navigation* (1998), 4-5. See also Reginald G. Marsden, 'The Regulations for Preventing Collisions', in *A Treatise on the Law of Collisions at Sea* (Stevens and Sons 1880), at p. 133-135.

[4] Ibid.

[5] International Convention for the Safety of Life at Sea (adopted on 20 January 1914, entered into force 1 July 1915) (SOLAS 1914), Art. 71; For the role of the UK in the conference, see International Maritime Organization (IMO), *Focus on IMO: SOLAS: the International Convention for the Safety of Life at Sea, 1974*, (1988), 1-2; Daniel F. Sheehan, 'Looking Back on IMO', in *Proceedings of the Maritime Safety Council: November-December, 1993* (50: U.S. Department of Transportation, United States Coast Guard, 1993), at p. 7-8.

[6] The *Titanic* incident led to a major loss of human life on the British passenger ship, namely the Titanic. The regulations on safety standards of British passenger ships were hugely concerned by the United Kingdom and the United States of America (US) due to public concern on safety transport by sea. See IMO (Focus on IMO) (Ibid.), at p.1; B. Obinna Okere, 'The Technique of International Maritime Legislation' (1981) 30 International and Comparative Law Quarterly 513, at p. 523. See also Daniel-Erasmus Khan, 'The International Ice Patrol', in *Recht Und Realität Festschrift Für Christoph Vedder* (2017), at p. 479-480.

[7] These maritime states were identified in IMO (Focus on IMO) (n 5); Michael B. Miller, 'Sea Transport and Supply' <https://encyclopedia.1914-1918-online.net/article/sea_transport_and_supply> accessed 10 March 2020; Eric W. Sager and Gerald E. Panting, 'Sailing Ships and Regional History' in *Maritime Capital: The Shipping Industry in Atlantic Canada, 1820-1914* (McGill-Queen's University Press 1990), at. p. 3, 12-13; and John G. B. Hutchins, 'The American Shipping Industry since 1914' (1954) 28 The Business History Review 105, at p. 105.

Obviously, the UK, which was the flag state of the Titanic ship, not only led the conference but also acted as a depository for the resulting treaty.[8] Later in 1930, the International Convention on Load Lines, 1930 (Load Lines 1930)[9] was also adopted by the thirty states that took part in the conference held by the UK, and the UK again acted as a depositary for the treaty.[10]

Evidently, the diplomatic conference had been the common treaty-making method before the establishment of the IMO, as it has been the main method for amending treaties relating to maritime safety such as SOLAS 1914, SOLAS 1929[11], and SOLAS 1948.[12] SOLAS 1914 could be amended by either "common consent," which requires unanimity, or a conference of state parties through diplomatic channels, which gives states more flexibility to agree on international standards.[13] In 1927, the UK, in cooperation with the US and France, convened a conference for amending SOLAS 1914, attended by eighteen states and consisting of fourteen parties and four non-parties to SOLAS 1914.[14] As a result, SOLAS 1929 was adopted[15] and later brought into force after the formal consent of at least five states was given to the UK as a depositary.[16] SOLAS 1929, which superseded SOLAS 1914, could also be amended either by a conference or with the mutual consent of state parties.[17] However, similar to the procedure in SOLAS 1914, SOLAS 1929 can be amended by a conference five

[8] SOLAS 1914, Art.71

[9] International Convention on Load Lines (adopted on 5 July 1930, entered into force 1 January 1933) (Load Lines 1930)

[10] Kamil A. Bekiashev and Vitali V. Serebriakov, 'International Maritime Organizations', in *International Marine Organizations: Essays on Structure and Activities* (Martinus Nijhoff Publishers 1981), at p. 52-53

[11] International Convention for the Safety of Life at Sea (adopted on 31 May 1929, entered into force 1 January 1933) 34 UKTS 2-6 (SOLAS 1929)

[12] International Convention for the Safety of Life at Sea (adopted on 10 June 1948, entered into force 19 November 1952) 164 UNTS 113 (SOLAS 1948)

[13] The amendment by a conference, therefore, has to be comply with the procedure as stipulated in the Vienna Convention on the Law of Treaties, 1969. See SOLAS 1914, Art.74. See also Vienna Convention on the Law of Treaties, 1969 (adopted on 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT), Art.9, 24

[14] Many states that attended the conference were major maritime states that accepted SOLAS 1914 and others, including Japan, which has a large merchant fleet, and India, which has been one of the important shipping routes in Asia. See Hutchins (n 7), at p. 105. See also Kenneth R. Hall, 'The Development of Maritime Trade in Asia', in *Maritime Trade and State Development in Early Southeast Asia* (University of Hawai'i Press, 1985), at p. 28-30; Sheehan (n 5), at p. 7-8.

[15] SOLAS 1929, Art.60. SOLAS 1929 mainly added regulations on the prevention of collisions at sea into the annex of the Convention. See IMO (Focus on IMO) (n 5).

[16] SOLAS 1929, Art.65

[17] The amendment methods of SOLAS 1929 were also applied to Load Lines 1930. See SOLAS 1929, Art.61; Load Lines 1930, Art.20.

years after the entry into force of the treaty, regardless of the importance or technical character of the amendments[18], meaning that the technical regulations of the treaty, which may need to be amended before the periodic requirement has been met, could not be amended in a timely manner. As this amendment method does not automatically allow non-parties to participate in the conference, the interests of those states may not be taken into consideration in the modified standards, which may preclude the universal acceptance of the treaty. Although SOLAS 1929 also allows any state party to propose any amendment to the treaty at anytime, the amendment will come into effect only when explicit acceptance from all state parties has been provided.[19] The amendments by mutual consent might also be difficult to put into force because state parties have to individually consider the proposal to amend the treaty without opportunities for negotiations with other states. Therefore, these amendment methods might also delay the entry into force of the amendments or even prevent the amendments, which require unanimous acceptances, from coming into force.[20]

In addition to those relating to maritime safety, the diplomatic conference has also been the common treaty-making method for the development of international shipping standards related to marine pollution prevention. After the First World War, the British and American governments had seriously focused on the carriage of cargo oil by ships, as it caused fire and damage in ports and coastal areas of the states.[21] In 1926, the US, which supplied 60% of oil and oil products in the world, hosted a conference in Washington, D.C., attended by thirteen major maritime states, consisting of Belgium, the UK, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Norway, Spain, Sweden, and the US, to establish effective measures for preventing oil pollution from ships.[22] Although the draft Washington Convention on Oil Pollution was developed at the conference, unfortunately, it was never adopted.

[18] SOLAS 1929, Art.61(2)
[19] SOLAS 1929, Art.61(1)
[20] Lei Shi, 'Successful Use of the Tacit Acceptance Procedure to Effective Progress in International Maritime Law' (1998) 11 USF Maritime Law Journal 299, at p. 304
[21] Sonia M. Zaide, 'Early Local and National Action', in *Oil Pollution Control* (Croom Helm 1987), at p. 1
[22] Sonia M. Zaide, 'The 1926 Washington Conference on OILPOL', in *Oil Pollution Control* (Croom Helm 1987), at p. 15

Later in 1954, the UK sought a solution for oil pollution from ships, which was considered a salient international problem, by hosting the International Conference on Pollution of the Sea to establish a treaty for oil pollution prevention. The International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL), "the world's first working treaty on oil pollution control,"[23] was adopted at the conference by thirty-one states, representing 95% of the world's shipping.[24] The treaty was deposited with the UK[25] and entered into force in 1958.[26] The development of OILPOL highlights the great effort of the UK as an individual state to encourage and promote the adoption of the treaty by relying on its own technical research and abilities to lobby various states, including the US, which was strongly opposed to the regulatory standards.[27] UK officials were sent to the US and other countries, inviting foreign officials to visit the oil spill-affected beach and using UK research papers to persuade them.[28] Even though the US objected to the adoption of OILPOL, the UK could finally encourage a sufficient number of states to adopt the treaty.[29]

The amendment procedures of OILPOL were advanced from those of SOLAS 1914/1929. The OILPOL can be amended by positive consent given by all state parties to a proposal circulated amongst them.[30] Unless the draft amendment proposed by a state is expressly objected to by a state party, the amendment will come into force in the following six months after having been notified to all state parties.[31] The

[23] Sonia M. Zaide, 'The 1954 International Convention', in *Oil Pollution Control* (Croom Helm 1987), at p. 71

[24] These states were also parties to the treaty. More than half of them were major maritime states, although some states with high fleet capacities such as Argentina, Brazil, and Russia, were not parties to the treaty. However, almost all of the state parties to OILPOL were also parties to SOLAS 1948. Lloyd's Register, 'Table 1: Merchant Fleets of the World', in *Lloyd's Register of Shipping: Statistical Tables 1954* (Lloyd's Register 1954-1955), 4-5. See also Zaide (Ibid.), 85.

[25] International Convention (with annexes) for the Prevention of Pollution of the Sea by Oil (adopted on 12 May 1954, entered into force 26 July 1958) 4714 UNTS 3 (OILPOL), Art. XIV

[26] International Maritime Organization, 'Oil Pollution: Background', <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Background.aspx> accessed 20 December 2019

[27] Zaide (n 23), at p. 84

[28] According to Zaide, the conference was "slow to overcome the 'indifferent' and 'ignorance' of many delegates". See Zaide (n 23), at p. 86

[29] Zaide (n 23), at p. 87

[30] OILPOL, Art.XVI (1), (2)

[31] OILPOL, Art.XVI (2)

diplomatic conference is retained as another amendment method of OILPOL[32] which requires the adoption of the amendments by two-thirds of state parties attending a conference and explicit consent from state parties. However, the amendments will later come into force for all state parties, except those formally objecting to the amendment, twelve months after the two-thirds of state parties express their acceptances of the amendment.[33] Although this amendment method allows state parties to discuss and exchange information in a forum provided by the UK, it does not formally allow non-state actors to support technical information in the conference.[34] Thus, the outcome of the negotiation, which also lacks procedural rules for the negotiations, heavily relies upon the initiation and actions of the UK as the Secretariat of the conference. This classic amendment method might be unfit for the amendment of technical regulations, which have to be regularly improved following the evolution of naval architecture and shipping industries. Nevertheless, this method was employed to amend both fundamental provisions and technical standards of OILPOL in 1962, four years after the treaty had come into force[35], impeding the timely modernization of international shipping standards.

The maritime safety and environmental treaties developed in the early nineteenth century might not strengthen universal maritime safety and marine environmental protection. The adoption of amendments to treaties by a conference causes unnecessary delay or even failure of the entry into force since all state parties must

[32] OILPOL, Art.XVI (3)-(4)

[33] Ibid.

[34] The diplomatic conference allows only state parties to participate in the negotiation and finalisation of the amendment of a treaty. See VCLT, Art.40.

[35] OILPOL 1954, as amended in 1962, Art.XVI.

The amendment to OILPOL was later brought into force in 1967. The OILPOL 1954 was also amended to allow the IMO, through the Assembly upon suggestion from the Maritime Safety Committee (MSC), to amend the Treaty, in addition to the amendment by a conference of state parties. Moreover, the 1962 amendment of OILPOL also allows the IMO to take on the role of facilitator for communicating a proposal for amendment between state parties and convening a conference for amendment of the Convention. See Inter-Governmental Maritime Consultative Organization, *IMCO/A.I/Resolution 8: Acceptance of Duties under the International Convention for the Prevention of Pollution of the Sea by Oil (1954)*, (International Maritime Organization, 1959). See also Inter-Governmental Maritime Consultative Organization, *A.III/Res.51: Acceptance by the Organization of Additional Duties Consequent Upon the International Convention on Prevention of Pollution of the Sea by Oil, 1962*, (International Maritime Organization, 1963); Zaide (n 23), 105; Sonia M. Zaide, 'The 1962 Amended Convention, Load on Top and the 1969 Amendments', in *Oil Pollution Control* (Croom Helm 1987), at p. 119, 141.

carefully consider the proposals, particularly technical standards, and may be obstructed by technical and financial constraints. Although amendments of OILPOL can be tacitly accepted to speed up the entry into force of the amendments, this amendment method might still be undesirable since it lacks a forum for discussion and can easily fail to come into force for all state parties. These challenges were even more pertinent as the membership of the international community increased and diversified. Obviously, the development of treaties has been influenced by some dominant maritime states, particularly those owing large fleets, since the beginning of the treaty-making process until treaties came into force. The number of countries involved in the treaty-making process at this time was no more than thirty-one,[36] although the number of participating states had gradually been increasing. Moreover, the amendment procedures of treaties such as SOLAS 1914, SOLAS 1929, and OILPOL did not promote universal participation, and they also deterred non-state actors from providing technical support. Moreover, states with technical and financial constraints, small fleets, or sensitive coastal areas may have been reluctant to accept treaties since their particular needs had not been considered.[37] This was particularly true of the needs of developing countries, which had become the largest ship-owning nations since the late nineteenth century.[38] These drawbacks of the amendment methods could therefore prevent the internationalisation and modification of shipping standards.

[36] Half of the participants in the OILPOL conference had large fleets, including flags of convenience such as Panama, while the rest also had ports and coastal areas. The fleet capacity of these states held about ninety percent of the world commercial fleet in 1954. See Inter-Governmental Maritime Consultative Organization, *SOLAS/Conf/9/Add.1 Final Report of the Credentials Committee*, (1974); United Nations, *World Economic Report 1948*, (1949), at p. 126, 152; B.N. Metaxas, 'Flags of convenience', (1982) Marine Policy 52, at p. 61; Lloyd's Register of Ships, 'Statistical Notes on the 1948-1949 Edition of Lloyd's Register Book', in *Lloyd's Register of Ships* (Lloyd's Register, 1948-1949), at p. 5.

[37] Many treaties, such as SOLAS 1914, SOLAS 1929, and SOLAS 1984, took several years to come into force. SOLAS 1914, SOLAS 1929, and SOLAS 1948 came into force after the preconditions for the entry into force of the amendments had been fulfilled for two years, five years, and one year, respectively.

[38] In 1968, developed countries owned more than half of the world fleet, which was gradually reduced to only almost one-quarter of the world fleet in 2017. On the contrary, developing countries had less than one-tenth of the world fleet in 1968 and constantly increased to about one-third of the world fleet in 2017. See United Nations, *50 Years of Review of Maritime Transport, 1968-2018: Reflecting on the past, exploring the future* (2018), at p. 27.

2.3 The IMO and its institutionalisation

The International Maritime Organization (IMO) was established in 1958 as the "Inter-Governmental Maritime Consultative Organization" (IMCO) with a view to strengthening international cooperation in maritime safety and promoting adoption of the "highest practicable standards" relating to maritime safety by facilitating the standard-setting processes.[39] Alongside its responsibility to establish mechanisms for consultation and information exchange among states, the Organization also encompasses standard-setting functions, which entail developing draft conventions, agreements, or other instruments, as well as making recommendations for states and other international organizations.[40] The IMO Constitution explicitly grants the IMO the authority to convene conferences to consider and discuss these instruments, thereby enabling the organization to perform this particular form of standard-setting. Later in 1975, when the role of the IMO would become much more significant in the development and implementation of international shipping standards after the UNCLOS was established, the name of the Organisation was changed to the IMO to express the functions of the Organisation, which were misunderstood by some countries as having only a consultative function.[41] Moreover, the Organisation has also expanded its scope to include standards for ship-source pollution prevention.[42]

Although the IMO originally focused on technical and commercial practices, the Organisation later agreed to leave commercial issues to the United Nations Commission on Trade and Development (UNCTAD).[43] To achieve its objectives, the

[39] IMO Convention, Art.1(a). The IMO originally restricted the scope of work to promote the adoption of maritime safety standards; however, in 1975, the Organisation has expanded the scope to include standards for ship-source pollution prevention. Moreover, the Organisation changed its name from "the Intergovernmental Maritime Consultative Organization" to "International Maritime Organization" (IMO) in 1982. See Intergovernmental Maritime Consultative Organization (IMCO), Resolution A.358(IX) Amendments to the IMCO Convention, (1975).

[40] IMO Convention, Art.2(b)

[41] Wilhelm H. Lampe, 'The "New" International Maritime Organization and Its Place in Development of International Maritime Law' (1983) 14 Journal of Maritime Law and Commerce 305, at p. 306-309

[42] IMO Convention, Art.1(a). See also Resolution A.358(IX) (n 39).

[43] IMO Convention, Art.1(b). The commercial function of the IMO was opposed by powerful private sectors in many states due to concern for interference in the shipping market. The objection to this function was clearly stated at the 1948 conference by Scandinavian countries that the IMO should handle technical matters while issues related to "unfair competition, restrictive practices and discrimination" should be handled by trade organisations. Later, in 1967, the UNCTAD took

IMO has significantly promoted international participation in the work of the Organisation, particularly in the standard setting, through its institutional mechanisms and regulatory approaches, as follows:

2.3.1 The member states

The IMO is open to all states to become members of the Organisation.[44] Member states can engage in policy-making, decision-making, and standard-setting processes. All member states taking part in the IMO organs have an equal right to vote. [45] Importantly, the standard settings of the IMO are normally made by consensus, despite the IMO Constitution only requiring majority votes of Member States.[46] Therefore, the participatory and non-discrimination principles promoted by the IMO could reduce the political influence of major maritime states, including flag-of-convenience states with large commercial fleets, in the standard-setting processes.

At the present, the IMO has 175 members, meaning that treaties developed under the auspices of the IMO have involved many states, certainly more than those that developed shipping standards before the IMO was established.[47] Even though the IMO has no formal distinction between participation in standard-setting between developed and developing countries, developing countries have become a majority of the IMO members as well as shipping states in recent years[48]. The asymmetric membership of the IMO and that of the carrying space of ships flying flags of developing countries reflect that developing countries might have more power in standard-setting than developed countries.

2.3.2 The non-state actors

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responsibility for dealing with maritime commercial matters. See David J. Padwa, 'The Curriculum of the IMCO', (1960) International Organization 524, at p. 530; Inter-Governmental Maritime Consultative Organization, *Resolution C.61(XL) IMCO's Responsibilities and Competence in the field of Multimodal Transport, Containerization, and the Maritime Carriage of Dangerous Goods*, 1978)

[44] IMO Convention, Art.4-10, 57

[45] IMO Convention, Art.62

[46] International Maritime Organization (IMO), 'Frequently Asked Questions: Doesn't IMO always aim for the lowest common denominator?' <http://www.imo.org/en/About/Pages/FAQs.aspx> accessed 10 April 2020

[47] IMO Convention, Art.57. See also International Maritime Organization (IMO), 'Member States', <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx> accessed 15 June 2022

[48] See the discussion in Note 38.

The IMO also allows international non-state actors[49] which are Non-Governmental Organizations (NGOs) and Intergovernmental Organizations (IGOs) to engage in the law-making processes of the IMO and provide their special knowledge in maritime safety and marine environmental protection to Member States in the IMO forums.[50]

Currently, eighty NGOs and sixty-three IGOs are given consultative status by the IMO.[51] Notwithstanding that they are not given the right to vote, [52] these non-state actors can influence Member States by lobbying and providing information documents, particularly technical guidelines, to the IMO.[53] The NGOs and IGOs can access meeting documents, resolutions, and recommendations provided by the IMO bodies and also submit proposals and documents related to the meetings to the IMO for consideration. For example, the role of the International Association of Classification Societies (IACS), an NGO having consultative status in the IMO, in providing unified interpretations of safety standards under SOLAS 1974 to the Maritime Safety Committee and approved by the IMO.[54] NGOs have also influenced the IMO in the law-making processes for marine environmental protection. These non-state actors may also balance the political power of major maritime states in the standard-setting negotiations.

[49] Evidently, the IMO denied the Green Ship Recycling Association because it could not prove the international character of the organisation. See James Harrison, 'Actors and institutions for the protection of the marine environment' in Rosemary Rayfuse (ed), in *Research Handbook on International Maritime Environmental Law* (Edward Elgar Publishing 2015), at p. 72; also International Maritime Organization, Resolution A.1144(31) Rules and Guidelines for Consultative Status of Non-Governmental International Organizations with the International Maritime Organization, (2020), Rule 6

[50] IMO Convention, Art.61, 62

[51] IMO Convention, Art.62. See also Resolution A.1144(31) (n 49), Rule 6

[52] Resolution A.1144(31) (n 49), Rule 8

[53] Resolution A.1144(31) (n 49), Rule 6

International Maritime Organization (IMO), *NCSR 4/24 Unified Interpretation of Provisions of IMO Safety, Security, and Marine Environmental Related Conventions*, (2016). See also Harrison (n 49), at p. 73; Gerard Peet, 'The Role of (Environmental) Non-Governmental Organizations at the Marine Environmental Protection Committee (MEPC) of the International Maritime Organization (IMO), and at the London Dumping Convention (LDC)', (1994) 22 Ocean & Coastal Management 1, at p. 14-16.

[54] International Maritime Organization, MSC.1/Circ.1362/Rev.1 Unified Interpretation of SOLAS Chapter II-1, (2022); International Association of Classification Societies, 'Unified Interpretations', <https://iacs.org.uk/publications/unified-interpretations/> accessed 9 July 2023

2.3.3 The IMO organs

The main organs of the IMO, which play a significant role in the development and compliance of international shipping standards, include the Assembly, the Council, the Maritime Safety Committee (MSC), the Marine Environment Protection Committee (MEPC), the Legal Committee, and the Technical Cooperation Committee.[55] The standard-setting work of the IMO is performed through its organs, particularly the Assembly, the Council, the Maritime Safety Committee (MSC), the Marine Environment Protection Committee (MEPC), their subsidiary bodies, and the Secretariat.[56] These bodies play vital roles in developing regulatory standards, facilitating the adoption of treaties and their amendments, and promoting the implementation of IMO treaties, as explored below.

(a) the Assembly

This backbone organ, consisting of all Member States of the IMO, is empowered by the IMO Constitution to adopt recommendations to promote the adoption of new standards or amendments of the existing standards developed by other technical organs, particularly the Maritime Safety Committee (MSC) and the Marine Environmental Protection Committee (MEPC).[57] Various treaties, such as TONNAGE,[58] COLREG[59] and Load Lines[60], also empower the Assembly to develop and adopt amendments to existing standards, as proposed by the IMO technical organs. The Assembly also regularly considers and approves the IMO work programme, convenes a conference, and recommends to Member States the adoption of regulatory standards, guidelines, and amendments to treaties.[61] Therefore, the

[55] In addition to these organs, the Facilitation Committee serves as another component within the IMO, as outlined in article 11 of the IMO Convention.
[56] There is also another institutional body, known as the Technical Cooperation Committee, which plays a significant role in the development of international shipping standards. The role of this committee will be investigated in Chapter 4, which focuses on the international mechanisms for capacity-building.
[57] The Assembly could delegate to the Council this task. See IMO Convention, Art. 15(j), (m)
[58] International Convention on Tonnage Measurement of Ships (adopted on 23 June 1969, entered into force 18 July 1982) 1291 UNTS 2 (TONNAGE), Art.18(3)(b),(c)
[59] Convention on the International Regulations for Preventing Collisions at Sea (adopted on 20 October 1972, entered into force 15 July 1977) 1050 UNTS 16 (COLREG), Art.VI(3),(4), (5)
[60] Load Lines, Art.29(3)(b),(c)
[61] IMO Convention, Art.15

Assembly is the "supreme governing body"[62] of the IMO, which has governing power in the work of the Organisation.[63]

(b) the Council

This body is the "central policy organ"[64] which is empowered by the IMO Constitution to develop and propose the work programme of the IMO by taking into consideration the proposals of other technical organs to the Assembly. The Council also considers and endorses new standards or amendments to any existing standards or recommendations as proposed by other organs before referring them to the Assembly to make a final decision.[65]

Although only elected Member States can play a part in the Council, the combination of states is prioritised for states having interests in providing shipping services and international seaborne trade, especially those having interests in maritime transport from all major geographical areas around the world, which is a double number of states compared to the other groups.[66] Under the IMO Convention, the Council consists of ship-provider countries and ship-user countries, which each hold one-fourth of the seats, while the remaining seats are allocated to the last group of states, amounting to half of the total seats.[67] Although the IMO Constitution does not explicitly provide for special seats reserved for developing countries, it does not preclude their participation, particularly for those with interests in maritime transport, by considering the representation of council members from all geographical regions. The Council's composition, with a majority of countries having maritime interests worldwide, facilitates the engagement of many developing countries in institutional policy-making. Notably, developing countries, particularly

[62] R. Michael M'Gonigle and Mark W. Zacher, 'IMCO and Its Member', in *Pollution, Politics, and International Law* (Berkeley: University of California Press 1979), at p. 44

[63] The Assembly can also convene special meetings upon request of one-third of Member States, or the Council. See IMO Convention, Art.13

[64] Ibid.

[65] IMO Convention, Art. 21(b)

[66] IMO Convention, Art.17. Since 1958, the Council had consisted of sixteen states, representing only the first and second groups. This was later changed by allowing an equal number of states in the third group to participate in this body in 1964. These states are elected by the Assembly. See International Maritime Organization (IMO), Resolution A.69(ES.II) Consideration of Proposed Amendments to Article 17, 18 and 28 of the IMCO Convention, (1964)

[67] IMO Convention, Art.17. See also International Maritime Organization, Resolution A.1000(25) Implementation of Part (C) of Article 17 of the IMO Convention, (2008)

the least developed countries and small island developing states, were expressly acknowledged as belonging to the group with maritime interests.[68] In practice, many developing countries occupy seats in the Council. For instance, in 2021, more than half of the Council members were nominated from developing countries across major regions, including the Americas, Africa, Asia, and the Pacific.[69] Among these, developing countries predominantly join the Council due to their maritime interests.[70]

The participatory right given to member states highlights the opportunity given by the IMO for non-major maritime states, particularly developing countries and the least developed countries, to shape the Organisational policy of the IMO. [71]

(c) The Maritime Safety Committee (MSC) and the Marine Environmental Protection Committee (MEPC)

The MSC and the MEPC are the main technical organs for standard setting. These committees, consisting of representatives from all member states, [72] consider technical matters regarding maritime safety and pollution from ships, respectively. [73] However, these technical bodies have performed their functions under the operational guidelines of the Committees developed by member states [74] and cooperate with other organs and regional organisations.[75]

Amongst their other duties, these technical committees also possess the quasi-legislative power to make amendments to treaties as empowered by treaties[76] such

[68] International Maritime Organization, Resolution A.1153(32) Guidance on Consistent Application of Article 17 of the IMO Convention, Annex, at para.4
[69] International Maritime Organization, 'IMO Assembly elects new 40-Member Council' <https://www.imo.org/en/MediaCentre/PressBriefings/pages/ElectionResults2021.aspx> accessed 9 July 2023
[70] Ibid.
[71] International Maritime Organization, Resolution A.315 (ES.V) Amendments to the IMCO Convention, (1974). See also M'gonigle and Zacher (n 62), at p. 46.
[72] IMO Convention, Art.27, 37
[73] IMO Convention, Art.28(a),(c), 38. The MSC was established by the IMO Convention in 1958. Later, the MEPC, as proposed by the US in order to have an entity responsible for pollution control, was introduced in 1975. See Resolution A.358(IX) (n 39).
[74] International Maritime Organization (IMO), MSC-MEPC.1/Circ.4/Rev.4 Guidelines on the Organization and Method of Work of the Maritime Safety Committee and the Maritime Environment Protection Committee and Their Subsidiary Bodies (2015)
[75] IMO Convention, Art. 28(b),(c), 38(a)
[76] IMO Convention, Art.28(b), 38(a)

as SOLAS 1974,[77] MARPOL 1973/1978,[78] and BWM[79]. These committees also possess quasi-legislative power in standard settings, as given by treaties. This power enables the Assembly to adopt amendments to shipping standards through a majority vote of state parties and make the amendment come into force universally, except for states opting out of the amendment.[80] To strengthen the standard-setting performance, these committees can also establish subsidiary bodies, specialised groups, including drafting groups, and correspondence groups, which consist of technical experts nominated by member states regardless of ratification status, IGOs, and NGOs.[81] Hence, the performance of these committees not only relies on the technical expertise of the states' representatives[82] but also that of the NGOs.[83] Even so, some states might also individually encourage the adoption of amendments to treaties if they have vitally reasonable grounds. For example, due to a number of fires on board American ships, the US proposed a study on fire protection onboard, requested the MSC convene a special meeting to consider the study paper, and encouraged the MSC and Assembly to adopt the amendment of fire safety regulations to SOLAS 1960 in 1966.[84]

The annual meetings of the Committees enable the bodies to regularly review existing regulatory standards and develop the standards, either by establishing new standards, amending existing standards, or providing recommendations or

[77] SOLAS, Art.VIII(b)(vi), (vii)
[78] MARPOL, Art.16(f)(iii)
[79] BWM, Art.19(2)(c), (e), (f)(ii)
[80] This quasi-legislative power has also been provided to the institutional bodies under other regimes, such as those developed by the World Health Organization and the International Civil Aviation Organization. See examples of how this power is given under other international regimes in Julia Sommer, 'Environmental Law-Making by International Organisations' (1996) Max Planck Institute for Comparative Public Law and International Law 628, at p. 644-646.
[81] Since 1948, the MSC and MEPC originally consisted of representatives mainly from shipowner states and ship-user states. However, in 1975, the amendment to the IMO Convention led to changes in the structure of committees by allowing all Member States to participate in these committee. See article 27 and 37 of the IMO Convention. See IMCO (Resolution A.358(IX)) (n 39)
[82] Silverstein (n 2), at p. 378.
[83] Since the IMO has no research capacity on its own, the meetings therefore heavily rely on studies proposed by some Member States having interests and financial capacities in doing research or employing skilled negotiators. See Silverstein (n 2), at p. 375-376.
[84] International Convention for the Safety of Life at Sea (adopted on 17 June 1960, entered into force 26 May 1965) 65 UKTS (SOLAS 1960). See also Silverstein (n 2), at p. 374-375.

guidelines for the timely implementation of treaties.[85] Thus, these committees may influence states' practices through their active participation in the law-making processes in these meetings.[86] The procedures for amendment by these committees will be considered below.

(d) The Secretariat

This secretariat is responsible for supporting negotiations and facilitating the work of other organs, such as recording the meeting, publishing documentation, and circulating documents to other bodies, member states and NGOs.[87] The Secretariat also has an "implied power"[88] to perform "leadership functions"[89] by transmitting "negotiation techniques" across the forums,[90] creating peaceful and collaborative forums for negotiations, and supporting the negotiations, such as providing technical and legal advice to the IMO organs upon requests[91] and preparing draft outlines of legal frameworks.[92] In contrast to the negotiations arranged by individual states before the mid-nineteenth century, the experience and neutrality of this organ could also increase the opportunity for the negotiations to reach consensual decisions. The

[85] IMO Convention, Art. 30, 40. These Committees arrange a meeting at least once a year and may also convene extraordinary sessions upon approval from the Council. See Rules of Procedure of the Maritime Safety Committee, Rule 3; Rules of Procedure of the Marine Environment Protection Committee, Rule 3

[86] Jutta Brunnée, 'Coping with Consent: Law-Making Under Multilateral Environmental Agreements' (2002) 15 Leiden Journal of International Law 1, at p. 1-52

[87] IMO Convention, Art.48

[88] Jose' E. Alvarez, 'International Organizations as Treaty-makers', in *International Organizations as Law-makers* (Oxford University Press 2005), at p. 284

[89] As Sandholtz observed that international organisations have leadership functions, Alvarez mentioned that these functions may be performed by the secretariat of international organisations. See Wayne Sandholtz, 'Institutions and Collective Action: The New Telecommunications in Western Europe' (1993) 45 World Politics 242, at p. 250; Jose' E. Alvarez, 'Have International Organizations Improve Treaty-Making?', in *International Organizations as Law-Makers* (Oxford University Press 2005), p. 342.

[90] Alvarez (Ibid.), at p. 342

[91] Blanco-Bazán, who was a Senior Deputy Director and Head of the Legal Office of the IMO, claimed that the Secretariat provides administrative services, including technical and legal advice. See Agustín Blanco-Bazán, 'IMO-Historical highlights in the life of a UN Agency' (2004) 6 Journal of the History of International Law 259, at p. 269.

[92] For example, the MEPC assigned the Secretariat to prepare a draft outline of the legal framework of ballast water management provisions in the form of a new annex to MARPOL 1973/1978, a protocol to add a new Annex to MARPOL, or a new treaty for the MEPC; however, the draft text prepared by the Secretariat was further developed by the MEPC. See, e.g., International Maritime Organization (IMO), *MEPC 43/21 Report of the Marine Environment Protection Committee on Its Forty-Third Session*, (1999), at p. 14, 16; see another example in International Maritime Organization (IMO), *MEPC 43/4: Harmful Aquatic Organisms in Ballast Water*, (1999).

Secretariat is therefore the key player of the IMO to facilitate negotiations of the standard setting through its administrative and technical functions, and it can particularly contribute to levelling the playing field for developing country members by providing information and support to negotiations.

2.3.4 The strategic plan

The IMO performs its functions according to the six-year strategic plan developed by the IMO Assembly.[93] By considering technological changes and the perspectives of states, especially those that are developing or least developed, the strategic plan sets out institutional policies and directions for treaty making.[94] During the six-year period, member states could review the strategic plan through the MSC and MEPC.[95] The strategic plan highlights the adaptation of standard setting to dynamic circumstances and underlines the promotion of "the integration, coherence, effectiveness, and universal reach of existing international law."[96] Hence, the strategic plan is also an important mechanism of the IMO to ensure the conformity of the law-making processes with the directions agreed by Member States.

2.3.5 Regulatory approaches of standard setting by the IMO

Since the nineteenth century, regulatory standards have been made using the prescriptive approach[97] as the details of conduct are stipulated in the relevant standards.[98] For example, SOLAS requires specific and qualitative materials for the

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[93] International Maritime Organization (IMO), *Resolution A. 1110(30) Strategic Plan for the Organization for the Six-Year Period 2018-2023*, (2017), at para. 3

[94] The strategic plan lays down the institutional policies and strategic directions of the IMO, which concern the practicality, feasibility, and proportionality of the proposal and burdens on relevant stakeholders, including the maritime industry and legislative and administrative functions of states. See IMO (Resolution A.1110(30) (Ibid.). See also International Maritime Organization (IMO), *MSC-MEPC.1/Circ.5/Rev.1 Organization and Method of Work of the Maritime Safety Committee and the Marine Environment Protection Committee and Their Subsidiary Bodies*, (2018), at para. 4.15.

[95] MSC-MEPC.1/Circ.Rev.1 (Ibid.), at para. 4.4

[96] Alan Boyle and Christine Chinkin, 'International Law-Making', in *The Making of International Law* (Oxford University Press, 2007), at p. 39

[97] International Maritime Organization (IMO), *Focus on IMO: International Goal-Based Ship Construction Standards for Bulk Carriers and Oil Tankers*, (2015), at p. 1

[98] Technical standards could be recognised as "obligations of conduct," which are requirements for taking particular actions as required. This method of treaty-making is also employed by several treaties with respect to environmental protection. For instance, article 2 of the 1985 Vienna Convention on the Protection of the Ozone Layer and article 2 of the 1991 Protocol of Environmental Protection to Antarctic Treaty. See discussion in Rüdiger Wolfrum, 'Obligation of Result Versus Obligation of Conduct: Some Thoughts About the Implementation of International Obligations' in

hulls, decks, and other parts of passenger ships, meaning that the ships must be installed and equipped with specific materials despite the fact that there may be alternative materials or designs that could contribute to better safety for the ships.[99] This approach to regulation is not flexible for state parties to implement the standards in a national context, as it demands strict adherence to a single standard. The prescriptive regulations might also be ineffectively implemented as they impose a burden on state parties to regulate the actions of shipowners rather than requiring shipowners to sustain and improve the safety of ships to the appropriate levels.[100] The prescriptive approach also hinders the progressive design of ships and modern best practices.[101] Although some regulatory standards have been improved towards flexible practices such as the introduction of functional requirements of ship design and equipment[102] and alternative designs[103] which allow state parties to adopt other equivalent methods of ship design, these regulations cannot ensure the equivalent degree of safety of ships to those designed under prescriptive requirements since state parties can adopt alternative standards depending entirely on their technical capacities with no oversight programme to ensure the safety performance of the standards.

In 2002, a goal-based approach was proposed by the Bahamas and Greece to the IMO.[104] Later in 2003, the concept of goal-based standards (GBS), which are "broad, overarching safety, environmental, and/or security standards that ships are required to meet during their life cycle,"[105] was discussed by the MSC to be used as an

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Jacob Katz Cogan, Mahnous H. Arsanjani, Robert D. Sloane and Siegfried Wiessner (ed), *Looking to the Future: Essays on International Law in Honor of W Michael Reisman* (Martinus Nijhoff Publishers 2011), at p. 373-376. See also Andrew Eaton, John Penny, Peter Bishop and Robin Bloomfield, 'The Practicalities of Goal-Based Safety Regulation' in Felix Redmill and Tom Anderson (ed), *Aspects of Safety Management: Proceedings of the Ninth Safety-critical Systems Symposium*, Bristol, UK 2001 (2001), at p. 35-36.

[99] SOLAS, Reg.2 of Chapter II-1

[100] Eaton, Penny, Bishop and Bloomfield (n 98), at p. 35-36

[101] Eaton, Penny, Bishop and Bloomfield (n 98), at p. 35-36

[102] SOLAS, Reg.2 of Chapter II-2. See also International Maritime Organization (IMO), Resolution MSC.99(73) Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended, (2000)

[103] SOLAS, Reg.17 of Chapter II-2

[104] IMO (Focus on IMO) (n 97), at p. 1

[105] Heike Hoppe, 'Goal-based Standards - A New Approach to the International Regulation of Ship Construction' (2005) 4 WMU Journal of Maritime Affairs 169, at p. 170, 173

alternative regulatory approach applied to safety standards relating to the construction and equipment of ships.[106] Finally, in 2010, the MSC adopted goal-based standards for bulk carriers and oil tankers.[107] Later, this regulatory approach was also adopted in the International Code for Ships Operating in Polar Water (Polar Code) under SOLAS[108] in 2014 and MARPOL[109] in 2015 and the International Code of Safety for Ships Using Gases or Other Low-flashpoint Fuels (IGF Code) under SOLAS[110] in 2015.

The GBS (or so-called "rules of rules"[111]) framework developed by the IMO generally provides functional requirements, for instance, the requirements for design, construction, and operation of ships[112], for regulatory standards to which states, verified by the MSC[113], are required to either develop on their own capacities or adopt from Recognized Organizations (ROs)[114] which are Classification Societies authorised by states to perform particular flag state enforcement.[115]

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[106] It is worth noting that, before 2003, the IMO used a goal-based approach with some technical subjects "not in a systemic manner," such as regulations 2 and 7 of Chapter II-2 of SOLAS. See International Maritime Organization, *MSC.77/2/5 Decisions of Other IMO Bodies: Consideration of the Strategy and Policy of the Organization Including the Report of the Working Group*, (2003), at p. 1.

[107] International Maritime Organization, *Resolution MSC.287(87) Adoption of the International Goal-Based Ship Construction Standards for Bulk Carriers and Oil Tankers*, (2010). See also International Maritime Organization, *Resolution MSC.290(87) Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended*, (2010).

[108] International Maritime Organization, *Resolution MSC.386(94) Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended,* (2014). See also International Maritime Organization, *Resolution MSC. 385(94) International Code for Ships Operating in Polar Waters (Polar Code),* (2014).

[109] International Maritime Organization, *Resolution MEPC.265(68) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973,* (2015). See also International Maritime Organization, *Resolution MEPC.254(68) International Code for Ships Operating in Polar Waters (Polar Code),* (2015).

[110] International Maritime Organization, *Resolution MSC.392(95) Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended,* (2015). See also International Maritime Organization, *Resolution MSC.391(95) Adoption of the International Code of Safety for Ships Using Gases or Other Low-Flashpoint Fuels (IGF Code),* (2015).

[111] International Maritime Organization, *MSC.1/Circ.1394/Rev.2 Generic Guidelines for Developing IMO Goal-Based Standards* (2019)

[112] Polar Code, Reg.3.2. See also IGF Code, Reg.3.2.

[113] See Resolution MSC.290(87) (n 107), Annex, at para.3

[114] See also Chapter 5 on the enforcement of the national legal framework for maritime shipping, which illustrates the roles and significance of ROs.

[115] For example, regulation 3-10(3) of Chapter II-1 of SOLAS requires states to regulate ship construction standards in accordance with the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers developed by the IMO, the MSC therefore adopted the goal-based standards to allow state parties to regulate ship design and construction in accordance with their own standards or standards developed by recognised Classification Societies.

The introduction of goal-based standards reflects the significant change in regulatory approach from prescriptive to "benchmarking, supported by functional risk-based requirements." [116] The goal-based approach is therefore a significant alternative approach for standard setting as it allows ships to be designed and constructed using innovative technologies[117] and enables state parties to develop and use national standards as appropriate.[118] Yet, Decker[119] observed that the achievement of the goals is difficult to precisely identify, while Schröder-Hinrichs[120] also observed that there are several challenges for the development and execution of the GBS, including "varying levels of risk acceptance, varied approaches, the requirement of new resources and new competences within maritime administrations to evaluate and approve risk-based designs, and the possible alienation of some stakeholders."

There are significant implications of this change of approach for developing countries. On one hand, the introduction of goal-based standards may offer leeway for developed countries to develop their own standards based on their technical resources. On the other hand, this regulatory approach challenges developing countries suffering from implementing highly technical standards, even though the guidelines for developing GBS[121] are also provided, since they might not be able to develop the GBS and have to comply with the standards developed by the ROs, which they have not been able to negotiate and discuss their abilities and interests to

[116] Jens-Uwe Schröder-Hinrichs, Anish Arvind Hebbar, Maximo Q. Mejia, Heike Deggim and Sascha Pristrom, 'The IMO Regulatory Framework for Arctic Shipping: Risk Perspectives and Goal-Based Pathways' in Floris Goerlandt, Aldo Chircop, Claudio Aporta and Ronal Pelot (ed), *Governance of Arctic Shipping* (Springer 2020), at p. 233.
[117] See Focus on IMO (n 97), at p. 1
[118] Eaton, Penny, Bishop and Bloomfield (n 98), at p. 35-36
[119] Christopher Decker, 'Goals-based and rules-based Approaches to Regulation' (2018) 8 BEIS Research Paper 1, at p. 25
[120] See Schröder-Hinrichs, Hebbar, Mejia, Deggim and Pristrom (n 116), at p. 237
[121] See MSC.1/Circ.1394/Rev.2 (n 111)

comply with these standards[122]. The latter problem might therefore undermine the effectiveness of the GBS.[123]

2.4 Standard setting by the IMO

Although the IMO Constitution does not give full legislative power to the IMO, it still has the power to develop regulatory standards through its organs. The IMO facilitates the adoption and implementation of treaties by providing a forum for negotiations. This Organisation has acted as the international legislative forum by providing opportunities for Member States to propose a draft of regulatory standards and express the particular need to develop shipping standards.[124] The IMO can convene conferences for treaty making upon requests of Member States channelled through its organs;[125] arrange regular meetings for developing regulatory standards; and shape the negotiations with the rules of procedure[126] under the principle of non-discrimination.[127] The IMO also facilitates the adoption of treaties and their amendments by acting as a depository for the treaties.[128] The IMO

[122] The Classification Societies are technical organisations that have been introduced since the 17th century as private organisations with technical expertise in maritime safety, in particular ship construction, ship surveys, and inspections for marine insurance. These organisations are also recognised and empowered by many maritime states, acting as flag states where they do not have technical personnel, to handle ship surveys and inspections in accordance with IMO treaties. See Philippe Boisson, 'Classification Societies and Safety at Sea: Back to basics to prepare for the future' (1994) 18 Marine Policy 363, at p. 363-377. See also F. Piniella J.M. Silos, J. Monedero and J. Walliser, 'The role of the Classification Societies in the era of globalization: a case study', (2013) 40 Maritime Policy and Management 384, at p. 386.

[123] Schröder-Hinrichs, Hebbar, Mejia, Deggim and Pristrom (n 116), at p. 237

[124] IMO Convention, Art.2(b)

[125] Ibid.

[126] As mentioned above, the IMO has established the strategic plan, strategic directions, and methods of work of the MSC and the MEPC as the rules of procedure of the organisation. See the discussion in Section 2.3.4 and Note 94 above.

[127] IMO Convention, Art.1(b). As merchant ships are able to change their flags from those of developed countries to those of developing countries or vice versa, the shipping standards have to be applied based on the principle of non-discrimination in order to ensure that all ships are built and operate with standards not below international shipping standards. This principle is enshrined in the IMO Constitution in order to avoid discriminatory impacts on shipping involved in international trade. Therefore, shipping standards must be applied by all state parties, regardless of nationality. See James Harrison, 'Marine Environmental Threats from Shipping', in *Saving the Oceans through Law: The International Legal Framework for the Protection of the Marine Environment* (First Edition edn.: Oxford University Press, 2017), at p. 119.

[128] This function is empowered by treaties developed in the IMO forums. See International Maritime Organization, 'List of Conventions, other multilateral instruments and amendments in respect of which the Organization performs depository and other functions' <http://www.imo.org/en/About/Conventions/StatusOfConventions/Pages/Default.aspx> accessed 11 April 2020

standard-setting functions, which evolved the traditional treaty-making approach led by an individual state towards broader participatory methods, could therefore encourage states to comply with international standards. The IMO also promotes universal and uniform practices by developing soft laws such as guidelines and recommendations for the implementation of treaties.[129] At present, the international shipping standards developed by the IMO have been accepted by a larger number of states than the shipping standards developed before the IMO was established.[130]

2.4.1 Standard-setting approaches

(1) The negotiation and adoption of new treaties (and their entry into force)

Treaties developed by the IMO have normally been adopted by consensus[131], although the IMO Constitution allows the IMO to make a decision by a majority vote.[132] Similar to treaties developed before the IMO was introduced, treaties developed by the IMO normally have their origins in the proposals of an individual member state. However, in contrast to the historic position, this state does not have to communicate with other states directly but rather has to submit the proposal to the IMO. This proposal would be considered by either the MSC or the MEPC for consideration in accordance with the designated directions and the rule of procedure of the IMO.[133] If the proposal is "not directly related to the Strategic directions," the Committee can also propose adding the proposal to the Strategic Plan to the Council

[129] Harrison also observed that non-binding instruments could be "used as a prelude to the negotiation of a treaty or they can be used when there is not sufficient political support for a legally binding instrument." Harrison (n 49), at p. 118

[130] For example, SOLAS 1974 was developed by 109 states and enters into force for 165 states having 95.98% of the world's gross tonnage, while the conference on MARPOL 1973/1978 was attended by 56 states and has been bound by 158 states, counting to 98.95% of the world gross tonnage. See International Maritime Organization (IMO), 'Status of Conventions: Ratifications by treaty' <http://www.imo.org/en/About/Conventions/StatusOfConventions/Pages/Default.aspx> accessed 5 April 2020

[130] Treaties and amendments of treaties developed by the IMO have normally been adopted by consensus. See Harilaos N. Psaraftis and Christos A. Kontovas, 'Influence and Transparency at the IMO: The Name of the Game', (2020) 22 Maritime Economics & Logistics 151, at p. 2.

[131] Treaties and amendments of treaties developed by the IMO have normally been adopted by consensus. See Harilaos N. Psaraftis and Christos A. Kontovas, 'Influence and Transparency at the IMO: The Name of the Game', (2020) 22 Maritime Economics & Logistics 151, at p. 2.

[132] IMO Convention, Art.57(b). The adoption of treaties by this method is complied with the 1969 Vienna Convention on the Law of Treaty. See VCLT, Art. 9.

[133] See Resolution A. 1110(30) (n 93); MSC-MEPC.1/Circ.5/Rev.1 (n 94), at para. 4.15.

and the Assembly, respectively, for approval.[134] The Committee will then develop and submit a draft of a treaty to the Council for endorsement prior to submission to the Assembly for consideration and convening a conference for adoption. [135] Obviously, treaties newly developed by the IMO have been considered by member states in several stages. The opportunities provided for member states to engage in all treaty-making processes in the IMO could considerably increase the opportunities for states to conclude and adopt the treaties in the conference. However, this method should be the last resort to the establishment of new shipping standards in response to urgent situations since these multiple processes may take a long time to adopt.

Although IMO treaties are adopted by consensus, they have no legal binding force for any states until the treaties are given consent by states.[136] The entry into force of many IMO treaties generally has preconditions and requires a certain period to allow state parties to prepare for the implementation of the treaties.[137] These treaties include SOLAS[138], Load Lines[139], COLREG[140], TONNAGE[141], STCW[142], MARPOL[143] and BWM[144]. The criteria for the entry into force of IMO treaties consist of both a quantitative condition, which is the minimum number of states giving consent, and a qualitative condition, which is a certain percentage of the aggregate gross tonnage of ships flying the flags of these states. The latter requirement highlights the domination of states with large fleets over the legal effect of treaties.[145] These

[134] IMO Convention, Art.21(b). See also MSC-MEPC.1/Circ.5/Rev.1 (n 93), at para. 4.19, 4.21.
[135] IMO Convention, Art.15(l), 21(b)
[136] Harrison observed that treaties that have been adopted are "not legislative instruments" until they receive subsequent consent from states. See James Harrison, *Making the Law of the Sea: A study in the Development of International Law* (Cambridge University Press 2011), at p. 5.
[137] Many IMO treaties, such as SOLAS, MARPOL, COLREG, and Load Lines, have been brought into force 12 months after the requirements have been met. See SOLAS, Art.X; MARPOL, Art.15(1); COLREG, Art.IV(a); Load Lines, Art.28(1).
[138] SOLAS, Art.X
[139] Load Lines, Art.28
[140] COLREG, Art.IV
[141] TONNAGE, Art.17
[142] STCW, art.XIV
[143] MARPOL, Art.15
[144] BWM, Art.18
[145] The fleet of some states may also represent a large number of ships engaged in domestic shipping. Although this means that their national fleet also has shipping standards that are no less than international standards, the number of ships engaged in international shipping may also be less than those that appear to bring the treaties into force.

multiple requirements may, however, cause a delay in the entry into force of the treaties. Although the adoption of treaties may be "a signal" for subsequent consent from states,[146] it cannot ensure that the treaties will be shortly accepted by states.[147] For example, the requirements for the entry into force of SOLAS had been fulfilled after the treaty had been adopted for almost five years.[148] There were only 38 states that ratified the treaty when it was brought into force.[149] Many states, in particular large fleet nations such as Liberia, the UK, the US, France, Germany, Norway, and Sweden, had taken several years for domestic consideration before ratifying the treaty[150] while some large fleet nations such as Japan and China acceded to the treaty after it had been brought into force.[151]

The explicit acceptance as required by IMO treaties is appropriate for the establishment of a new treaty under which international shipping standards have not been considered under other treaties since it could ensure that the treaty would be enforced by state parties. In other words, it could ensure that the treaty comes into force with the intention of state parties. In practice, several conventions have been considered by states for many years before coming into force. For example, BWM 2004 took almost fourteen years to come into force due to the incapacity of shipowners and manufacturers to comply with the advanced technical requirements within the short period and the unclear procedures for states to exercise their port state measures.[152] Some agreements have not yet entered into force, several

[146] As the study by Milewicz, Ward, and Hugh-Jones shows that the signatories of states having special knowledge have an important influence on the domestic acceptances of other states, the broad participation of states in the IMO forum should also sway the domestic concerns of many states towards the ratification of the treaties. See Karolina Milewicz, Hugh Ward and David Hugh-Jones, 'Signaling by Signature: The Weight of International Opinion and Ratification of Treaties by Domestic Veto Players', (2018) 6 Political Science Research and Methods 15, at p. 15, 21-29.

[147] Shi observed that the requirements for the entry into force of a treaty should enable such treaty to be brought into force as fast as possible. See Shi (n 20), at p. 313.

[148] The entry into force of SOLAS requires acceptances from at least 25 states having aggregate gross tonnage no less than half of the world gross tonnage. The treaty was brought into force on 25 May 1980, 12 months after these requirements had been met. See SOLAS, Art. X.

[149] International Maritime Organization, 'Ratification of Treaties' <https://gisis.imo.org/Public/ST/Ratification.aspx?tid=2> accessed 19 October 2019

[150] These states submitted the instruments for becoming parties to SOLAS 1974 three years after its adoption. See International Maritime Organization, 'Status of Treaties' <https://gisis.imo.org/Public/ST/Treaties.aspx> accessed 14 October 2019

[151] Ibid.

[152] Andreas Zink, 'The IMO's Ballast Water Management Convention of 2004: A Decade of Evolution and Challenges', (2015) 29 Ocean Yearbook Online 441, at p.462

decades after their adoption, e.g., the 1977 Torremolinos International Convention for the Safety of Fishing Vessels. Therefore, the active participation of many states in the negotiations and adoption of treaties cannot ensure that treaties will be brought into effect in a timely manner. The delay in the entry into force of treaties also underlines the need to have other supportive mechanisms provided by the IMO to increase the possibility of bringing the treaties into force.

(2) The amendment of (the main part of) treaties and the addition of new annexes to treaties (and their entry into force)

As noted above, there were particular challenges with amending international shipping treaties when states relied upon diplomatic conferences. The establishment of the IMO offered opportunities for different amendment practices to be adopted.

After the IMO was introduced in March 1948 but not yet established,[153] the UK hosted the conference, which was attended by thirty countries, including sixteen states that were non-parties to SOLAS 1929, for considering the amendment of SOLAS 1929.[154] The states adopted SOLAS 1948, which amends and revokes SOLAS 1929, and deposited the treaty with the UK.[155] This treaty could come into force with explicit consent from fifteen countries, of which at least seven each have no less than one million shipping tonnage.[156] More importantly, for present purposes, the treaty empowers the IMO, which was established in 1958, to act as a depository, provide a forum for negotiations, and facilitate the amendment of the treaty,[157] meaning that SOLAS 1948 cannot be amended by the IMO at least almost six years after SOLAS 1948 came into force. The amendment procedures of SOLAS 1948 were further developed from SOLAS 1929 by including a new mechanism in addition to the mutual

[153] The Convention on the Inter-governmental Maritime Consultative Organization (IMO Convention), establishing the IMO, was adopted in March 1948 by a conference convened by the United Nations and came into force in 1958. The Organisation was originally established with a view to promoting maritime safety. See International Maritime Organization (IMO), 'Convention on the International International Maritime Organization' <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Convention-on-the-International-Maritime-Organization.aspx> accessed 10 March 2020

[154] States that participated in the conference were from various regions, including Europe, Australia, South Africa, and Asia. See SOLAS 1948, preamble.

[155] SOLAS 1948, Art.VII

[156] SOLAS 1948, Art.XI

[157] SOLAS 1948, Art.VIII, IX, X, XI

agreement of state parties upon request of a state through the IMO[158] and a diplomatic conference.[159] A third method is the adoption of amendments by the IMO.[160] SOLAS 1948 authorises the IMO Assembly to consider and adopt an amendment by a two-thirds majority vote, following a recommendation adopted by a two-thirds majority vote of the Maritime Safety Committee (MSC). The amendment will come into force with the consent of two-thirds of state parties.[161] The amendment by this method opened the door for member states and NGOs to participate in the technical committees.[162] Obviously, SOLAS 1948 first allowed the IMO to provide forums for member states to engage in the amendment procedures and also welcomed NGOs to provide technical information to state parties. Even though the new amendment procedure may encourage member states to become parties to the treaty and promote uniform implementation of the treaty, the common requirement for explicit acceptance is still a dilemma with the entry into force of the amendments of SOLAS 1948, given the delay of universal practices that may occur as states consider the adoption of amendments through their domestic legal procedures.[163] This challenge has been overcome through the adoption of more innovations in the amendment procedures in later IMO treaties.

Generally, IMO treaties have been amended in accordance with the amendment provisions of the treaties through a variety of stages.[164] Similar to the adoption of a new treaty, any state can submit a proposal to amend any treaty to the IMO. The IMO Convention allows its organs, in particular the MSC or MEPC, the Council, and

[158] The state has to submit the proposal to amend SOLAS 1948 to the IMO for circulation to all state parties. See SOLAS 1948, Art.IX(a).

[159] Any amendment can be adopted by two-thirds of state parties participating in a conference convened by the IMO upon the request of one-third of state parties, and the amendment will come into force for all state parties twelve months after it has been formally accepted by two-thirds of state parties, except those explicitly objecting to the amendment. See SOLAS 1948, Art.IX(c).

[160] SOLAS 1948, Art.IX(b)

[161] SOLAS 1948, Art.IX(b); IMO Convention, Art.16, 29.

[162] IMO Convention, Art.48

[163] Sheehan observed that these amendment procedures require "explicit action by a nation's legislature," which obstructed the entry into force of amendments to SOLAS 1948 and SOLAS 1960, which also inherit the amendment procedures from SOLAS 1948. The requirement of positive consent also poses a similar challenge to the amendment of OILPOL, which was investigated in Section 2.2. See also Sheehan (n 5), at p. 8.

[164] Treaties can be amended in accordance with amendment provisions in the treaties or by amending agreements between parties. See VCLT 1969, Art.40.

the Assembly, respectively, to develop amendments to treaties under the strategic plan and the method of work of the technical organs, which are also adopted by either a conference of state parties or the IMO.[165]

The non-technical part of the treaties,[166] particularly articles in the main body of many IMO treaties such as SOLAS[167], Load Lines[168], TONNAGE[169], COLREG[170], STCW[171], MARPOL[172] and BWM[173] can be amended by a conference of state parties, which requires multiple processes of standard setting within the IMO.[174] On the other hand, many IMO treaties, including SOLAS[175], Load Lines[176], TONNAGE[177], STCW[178], MARPOL[179] and BWM[180] could also be amended upon the adoption of two-thirds of state parties participating in the relevant committee.[181] The power of the committees to develop and adopt the amendments marks the decision-making power in treaty making. Therefore, the amendment can be adopted in a timely manner. Although the IMO Constitution does not empower the organisation to perform the legislative function and adoption of treaties and their amendments, it is

[165] This process is the same as the development of a new treaty by the IMO as required by the IMO Convention, the Strategic directions and also the Method of work of the MSC and the MEPC.
[166] Doris König, 'Tacit Acceptance/Opting Out Procedure', (2006) Max Planck Encyclopedia of Public International Law, at para. 4
[167] SOLAS, Art.VIII (b)(vi)(1), (c)
[168] Load Lines, Art.29 (3)(a),(b), (4)
[169] TONNAGE, Art.18 (a),(b), (4)
[170] COLREG, Art.V
[171] STCW, Art.XII (1)(a)(iv), (b)
[172] MARPOL, Art.16 (2)(d), (3)
[173] BWM, Art.19 (2)(c), (3); IMO Convention, Art.38 (a).
[174] James Harrison, 'The International Maritime Organization and the international regulation of shipping', in *Making the Law of the Sea: A study in the Development of International Law* (Cambridge University Press 2011), at p. 161
[175] SOLAS, Art.VIII(b)(ii),(iv)
[176] Load Lines, Art.29 (3)(a),(b). Although the treaty also empowers the Assembly to adopt amendments to the treaty, the IMO assigns the MSC to perform this function. See Resolution A. 1110(30) (n 93); MSC-MEPC.1/Circ.5/Rev.1 (n 94).
[177] TONNAGE, Art.18 (2)(a),(b). The treaty also empowers the Assembly to adopt amendments to the treaty, however, the IMO assigns the MSC to perform this function. See also Resolution A. 1110(30) (n 93).
[178] STCW, Art.XII (a)
[179] MARPOL, Art.16 (2). Although the treaty refers to "an appropriate body" of the IMO to adopt amendments to the treaty, the MEPC is empowered by the IMO to perform this function. See IMO Convention, Art.38 (a).
[180] BWM, Art.19 (2); IMO Convention, Art.38 (a).
[181] These treaties give full power to the MSC and the MEPC to consider and adopt amendments to the treaties.

empowered by the consent of state parties to the treaties to be a decision-maker[182] and has a "quasi-legislative function."[183]

Similar to the entry into force of new treaties, amendments to treaties will not come into force for all state parties until state parties give explicit consent to the amendments.[184] The amendments will come into force only for states that have given consent, provided that the consent has met the quantitative requirement.[185] The entry into force of amendments to various treaties such as SOLAS 1960[186], SOLAS[187], Load Lines[188], TONNAGE[189], COLREG[190], STCW[191] and BWM[192] requires formal consent from two-thirds of state parties. Moreover, amendments to treaties such as MARPOL[193] also require formal consent from two-thirds of state parties having at least fifty percent of the world's shipping tonnage. These combined requirements may hamper the amendments from coming into force in a timely manner.[194]

While amendment by a conference is typically used for non-technical treaty provisions, it may also be employed for technical regulations in certain instances. This occurs when the regulations address related yet distinct matters, such as different types of pollution, necessitating the creation of a new treaty annex. The addition of Annex VI to MARPOL is an example of this treaty-making method.

[182] Lampe (n 41), at p. 319
[183] M'gonigle and Zacher (n 62), at p. 48. See the discussion on the function of the technical bodies in Section 2.3.3 above.
[184] The explicit consent approach is the classical approach, which requires formal explicit consent from states. See VCLT, Art.11.
[185] The amendments to some treaties, such as SOLAS, STCW, and BWM will be brought into force six months after the requisite consent has been given, while those to some treaties, such as Load Lines, TONNAGE, and MARPOL, will be brought into force twelve months after the requisite consent has been received.
[186] SOLAS 1960, Art.IX (b)
[187] SOLAS, Art.VIII (b)(vi)(1), (c) (iii)
[188] Load Lines, Art.29 (3)(c), (4)(c)
[189] TONNAGE, Art.18 (3)(c)
[190] COLREG, Art.V
[191] STCW, Art.XII (1)(a)(vi)
[192] BWM, Art.19 (2)(e)(i)
[193] MARPOL, Art.16 (2)(f)(i), (g), (3)(c)
[194] The explicit consent was found to be "a slow and cumbersome device" for the entry into force of amendments already adopted within a reasonable period. For example, many amendments to SOLAS 1960, which were adopted in 1966, 1967, 1968, 1969, 1971, and 1973, had not been brought into force due to the insufficient number of explicit acceptances from state parties. See Shi (n 20), at p. 303-305

MARPOL[195], which is the treaty relating to ship-source pollution prevention, requires that an annex that could be inserted into MARPOL "shall relate to the substance of that Annex and shall be consistent with Articles of the treaty."[196] Moreover, the amendment of MARPOL by adding a new annex to the treaty shall be subject to the same procedure as those for articles of the treaty.[197] In 1991, the IMO considered that the set of shipping standards relating to air pollution should be added to MARPOL.[198] In 1997, state parties adopted the protocol to amend MARPOL, which adds Annex VI on Regulations for the Prevention of Air Pollution from Ships to the treaty.[199] This protocol has been brought into force twelve months after explicit consent has been given by fifteen state parties, all of whom have an aggregate commercial fleet of not less than half of the world's gross tonnage.[200] It is worth noting that the period of the entry into force of Annex VI of MARPOL is also different from that of the amendments to technical regulations in other Annexes.[201]

The IMO has also developed new shipping standards as an alternative set of standards for states to enhance national shipping standards. The set of these standards has been adopted as a protocol by a diplomatic conference and entered into force for states expressing explicit consent. For example, the Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974 (SOLAS

[195] Before Annex VI was added to MARPOL, the treaty had five annexes, which are sets of shipping standards for the prevention of oil pollution, pollution by noxious liquid substances, sewage, and garbage onboard.

[196] It is worth noting that the IMO considered that BWM 2004 might also be added as an annex to MARPOL since regulations on ballast water management are related to ship-source pollution, which has already been regulated by MARPOL as "a single basic international Convention for the regulations of shipping-related pollution prevention matters." As several states argued, the "nature of regulations" for ballast water management are different from those stipulated in the annexes of MARPOL. Finally, a majority of states agreed that these regulations should be developed as a new treaty. See IMO (MEPC 43/21) (n 92), at p. 16-17.

[197] MARPOL, Art.16(5)

[198] International Maritime Organization, *Resolution A. 719(17) Prevention of Air Pollution from Ships*, (1991)

[199] International Maritime Organization, 'Air Pollution: History Background' (2019) <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Historic-Background-.aspx> accessed 6 December 2019

[200] Protocol of 1997 to Amend the International Convention for the Prevention from Ships, 1973, As Modified by the Protocol of 1978 Relating Thereto (adopted on 26 September 1997, entered into force on 19 May 2005)

[201] The amendment of an article of MARPOL will be entered into force six months after the date of its acceptance, while Protocol 1997 will be brought into force twelve months after the date of its acceptance. However, the criteria for the entry into force of the Protocol 1997 are the same as those of MARPOL, as stipulated in Article 15 of MARPOL. See Protocol 1997, Art.6.

Protocol) and the Protocol of 1988 relating to the International Convention on Load Lines, 1966 (Load Lines Protocol), the successive treaties of SOLAS and Load Lines, respectively, introduced new sets of shipping standards that modify the existing standards in the earlier treaties.[202] This treaty-making method provides an opportunity for states with advanced technical and financial capacities to implement the standards promptly while allowing those with fewer capacities to maintain existing shipping standards until they are ready to improve their national standards to the same level as required in the successive treaties.

(3) The amendment of treaty annexes (and their entry into force)

As the amendment adopted by a diplomatic conference and coming into force by formal acceptance might take a long time or even fail to be brought into force, the IMO has introduced the tacit amendment procedure[203] to amend technical regulations, which are normally specified in an annex or appendix to an annex, of the majority of IMO treaties in order to ensure that shipping standards have been modernised following the technological enhancement of naval architecture.[204] After amendments of treaty annexes have been adopted by the requisite number of states acting in the relevant Committee, the amendments will be deemed to have been accepted by all state parties after a certain period after the adoption, unless there are formal objections from a certain number of states[205] or a certain number of states having aggregated amounts of shipping tonnage not less than fifty percent of

[202] Both SOLAS Protocol and Load Lines Protocol can come into force with acceptances from fifteen states with an aggregated amount of shipping tonnage not less than half of the world's shipping tonnage. It is also worth noting that SOLAS Protocol 1988 and Load Lines Protocol 1988 have been accepted by almost all states that are parties to SOLAS and Load Lines. See Focus on IMO (n 3), at para.3. See also Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974 (adopted on 11 November 1988, entered into force 3 February 2000) (SOLAS Protocol), Preamble, Article V(1); the Protocol of 1988 Relating to the International Convention on Load Lines, 1966 (adopted on 11 November 1988, entered into force 3 February 2000) (Load Lines Protocol), Preamble, Article V(1)

[203] This method is not explicitly specified in the Vienna Convention on the Law of Treaties (VCLT) but it is allowed by the VCLT as "any other means if so agreed." See VCLT, Art.11. See also Dorota Lost-Siemenska, 'The International Maritime Organization' in Michael Bowman and Dino Kritsiotis (ed), *Conceptual and Contextual Perspective on the Modern Law of Treaties* (Cambridge University Press 2018), at p. 104-105.

[204] A.O. Adede, 'Amendment Procedures for Conventions with Technical Annexes: The IMCO Experience', (1977) 17 Virginia Journal of International Law 201, at p. 202

[205] COLREG, Art.VI (4); Load Lines, Art.29 (3)(c); STCW, Art.XII (1)(vii),(ix); MARPOL, Art.16 (2)(f)(ii),(iii),(iv); BWM, Art.19 (2)(e)(ii).

the world shipping tonnage.[206] Generally, the amendments adopted by the IMO, such as the annexes of SOLAS[207], STCW[208], MARPOL[209] and BWM[210], are deemed to have been accepted ten to twenty-four months after they have been adopted. The amendment by tacit acceptance assumes that all state parties agree to the amendments to treaties in advance[211] despite the fact that only a majority of state parties gave consent to the amendments at the time of their adoption. Normally, amendments to treaty annexes will come into force six to twelve months after the amendments have been expressly or tacitly accepted.[212] Nevertheless, some treaties allow the Committee, made up of two-thirds of state parties that adopted the amendments, to decide a preferable date for their entry into force[213], meaning that state parties could negotiate the period for the entry into force of the amendments to allow for a longer period, for example, by considering the needs and interests of developing countries. Since the tacit amendment procedure could ensure that the amendments will come into force within a certain period[214], it might strengthen maritime safety and marine environmental protection by promoting universal acceptance.

Notwithstanding, state parties are not automatically obliged to implement the amendments until the given period has been reached with no objection. The amendments to some treaties, such as STCW[215], COLREG[216] and BWM[217], will not come into force if a certain number of states or states with aggregated gross tonnage formally object to the amendments within a specified period after the date of

[206] SOLAS, Art.VIII (b)(vi); STCW, Art.XII(2).
[207] SOLAS, Art.VIII(b)(vi)(2)
[208] STCW, Art.XII(a)(vii)
[209] MARPOL, Art.16(2)(f)(ii),(iii,(iv)
[210] BWM, Art.19(2)(e)(ii)
[211] Shi (n 20), at p. 302.
[212] Many treaties relating to maritime safety and marine pollution prevention specify the period of the amendments' entry into force between six and twelve months. These treaties include SOLAS, Load Lines, TONNAGE, COLREG, STCW, MARPOL, and BWM.
[213] SOLAS, Art.VIII(b)(iv); COLREG, Art.VI (2).
[214] The use of tacit acceptance procedures has been proven to be successful in bringing many amendments to the technical regulations of treaties into force, such as those of SOLAS and MARPOL. It was also found that SOLAS was amended by more than a hundred resolutions while MARPOL was amended by more than fifty resolutions. See Lost-Siemenska (n 203), at p. 104-105.
[215] STCW, Art.XII(1)(a)(vii)
[216] COLREG, Art.VI(4)
[217] BWM, Art.19(2)(e), 19(2)(f)(ii)(1)

adoption. The amendments to treaties such as MARPOL [218] and BWM [219] will automatically come into force for only state parties that do not express their objections to the IMO before the amendments have come into force and notify that the amendments will come into force for them only when they provide subsequent consent to the amendments. Although amendments to SOLAS[220] will automatically come into force for the state parties, this treaty allows any state party to delay the entry into force of the amendments for one year after they come into force. The opportunities to object to the amendments or even delay the amendments benefit states, particularly developing countries, that are not ready to implement the amendments at the time of their entry into force. Recently, some developing countries, such as Brazil[221] objected to the amendment of MARPOL before it came into force in 2013. [222] Although some authors argue that the tacit amendment method implicitly forces state parties "having legitimate reasons for not accepting it" to accept the amendment[223], it can happen only when states legitimately neglect to express their objections within a given period. This will be discussed further below when considering the challenges facing developing countries in implementing IMO treaties.

(4) The adoption of resolutions for the early implementation of treaties

Although the tacit acceptance procedure has been employed to speed up the entry into force of amendments to IMO treaties, the amendments will not come into force until a specified period has been reached. The IMO has therefore promoted, through a resolution of a committee or a circular, the voluntarily early implementation of the

[218] MARPOL, Art.16(g)(ii)
[219] BWM, Art.19(2)(f)(ii)(2)
[220] SOLAS, Art.VIII(b)(vii)(2)
[221] International Maritime Organization, *Circular letter No.3268 Communication received from the Federal Republic of Brazil*, (2012)
[222] Some authors have observed that amendments are rarely objected to after they have been adopted. The IMO found that some states had not incorporated many of regulatory standards of SOLAS, MARPOL, STCW, Load Lines and the amendments into their national legislation. For example, Brazil, which had not objected to the amendments to SOLAS adopted in 1981, expressed its inability to implement the amendments in 1996. See König (n 165), at para.21. See also Shi (n 20), at p. 310; International Maritime Organization, *C 113/5/2 : IMO Member State Audit Scheme: Consolidated Audit Summary Report*, (2014), Annex, at p. 3.
[223] The "by-pass expressly given state consent" challenges the legitimacy of the treaty-making processes, which may be the precondition for domestic compliance. See Adede (n 203), at p. 207-209. See also Boyle and Chinkin (n 96), at p. 25.

amendments to treaties relating to maritime safety before the amendments come into force. For example, the MSC has recommended that state parties apply the amendments to regulatory standards in the Annex of SOLAS, which have already been adopted and deemed to be accepted by tacit acceptance prior to the date of entry into force of the amendments.[224] In 2017, the MSC also developed guidelines for the early implementation of amendments to SOLAS, emphasising that the early implementation is solely based on the discretion of each state to apply the amendments to ships flying the flags and also stressing that the early implementation should not be applied to ships flying the flags of other states by states in their capacities as port states.[225]

Recently, the IMO has attempted to make the non-binding early implementation become binding by introducing the provisional application to the amendment of a treaty under the 1969 Vienna Convention on the Law of Treaties (VCLT)[226] and the 2018 draft Guide to Provisional Application of Treaties developed by the International Law Commission (ILC)[227], which also proposes the forms of agreement on provisional application. The provisional application of treaties normally adopted in the organs of international organisations or at diplomatic conferences held by international organisations.[228] This treaty-making method can be applied to certain parts of a treaty or amendments of a treaty, as agreed by state parties as specified in the treaty or a separate form of agreement, in order to bring the provisions or

[224] See, e.g., International Maritime Organization, *MSC/Circ.1127 Early Implementation of Amendment to SOLAS Regulation III/19.3.3.3 Adopted by Resolution MSC.152(78)*, (2004). See another example in the International Maritime Organization, *MSC.1/Circ.1566 Voluntary Early Implementation of the Amendments to SOLAS Regulations II-2/1 and II-2/10, Adopted by Resolution MSC.409(97)*, (2017).

[225] In 2018, there has also been an attempt to encourage states to early implement the regulatory standards of MARPOL Annex VI; therefore, the early implementation of amendments might also be applied to the amendments of regulatory standards relating to marine environmental protection in the near future. See International Maritime Organization, MSC.1/Circ.1565 Guidelines on the Voluntary Early Implementation of Amendments to the 1974 SOLAS Convention and Related Mandatory Instruments, (2017); International Maritime Organization, *MEPC 72/5/10 Air Pollution and Energy Efficiency (Submitted by South Korea)*, (2018).

[226] VCLT, Art.25

[227] International Law Commission (ILC), *A/CN.4/L.910 Provisional Application of Treaties: Texts and Titles of the Draft Guidelines Adopted by the Drafting Committee on First Reading*, (United Nations General Assembly 2018), Draft guideline 4

[228] Andrew Michie, 'The role of provisionally applied treaties in international organisations' (2006) 39 The Comparative and International Law Journal of Southern Africa 39, at p. 45-46

amendments of the treaty into force before they are formally brought into force by states expressing explicit acceptance.[229] For example, the provisional application of Part XI of the 1982 United Nations Convention on the Law of the Sea (UNCLOS),[230] provisions of the UNCLOS relating to the conservation and management of straddling fish stocks and highly migratory fish stocks,[231] and the amendment of the Montreal Protocol on Substances that Deplete the Ozone Layer.[232] This means that state parties have given implicit consent to apply the provisions or the amendments before the formal requirements for their entry into force have been met.

In 2016, the MSC discussed whether amendments to the technical regulations of SOLAS should be provisionally applied.[233] The Secretariat recommended the MSC insert the chapeau clause stipulating the agreement of state parties to provisionally apply the amendment of SOLAS into the resolution that adopts the amendment. However, the provisional application clause allows states to formally opt-out or opt-in to the application after its adoption.[234] Thus, the amendments by this method will come into force for state parties that adopted the amendments at the date specified in the resolution, unless states explicitly opt out of the provisional application within the specified period. Nevertheless, in 2017, the MSC concluded that it is unnecessary to introduce the provisional application to the application of tacitly accepted

[229] The provisional application of treaties has been employed by many treaties developed in various forms of agreements, such as a term in a treaty, a protocol to the treaty, a resolution of a diplomatic conference, or the practice of state parties. See Michie (Ibid.), at 45-46.

[230] This agreement was adopted by the United Nations General Assembly. See Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (adopted on 17 August 1994, entered into force 16 November 1994) 1836 UNTS 3, Art.7.

[231] 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 (adopted on 18 September 1995, entered into force 11 December 2001) 2167 UNTS 3, Art.41

[232] Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (adopted on 15 October 2016, entered into force 1 January 2019)

[233] International Maritime Organization, *MSC 97/22 Report of the Maritime Safety Committee on Its Ninety-Seventh Session*, (2016), 47, para. 9.9. See also International Maritime Organization (IMO), *MSC 98/4 Early Implementation/Application of IMO Instruments: Legal Advice on Provisional Application and Early Implementation of a Treaty*, (2017).

[234] The permit to object to the provisional application of amendments to a treaty is also consistent with Article 25(2) of the VCLT. This approach is also consistent with the draft Guide to Provisional application of treaties developed by the International Law Commission (ILC) in 2018 which also proposes the forms of agreement on provisional application, including a resolution adopted by an international organisation. See A/CN.4/L.910 (n 226), Draft guideline 4.

amendments of SOLAS since the voluntary early implementation is valid[235] and also suggested states avoid enforcing the international standards that have been voluntarily implemented by the states before they come into force on ships flying the flag of other states.[236] In other words, the voluntary early implementation should be used only by flag states.

(5) The (approval and) adoption of interpretative resolutions (and their entry into force)

To ensure universal and uniform practices, the IMO has also provided non-binding and binding interpretative instruments. The IMO empowered the MSC and the MEPC[237] to develop and propose recommendations to the Council for endorsement and submit them to the Assembly for adoption as resolutions or circulars.[238] This method has been used for the adoption of interpretative resolutions on matters related to both maritime safety and marine pollution prevention. For example, the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) which are the guidelines for ship surveys under shipping standards in SOLAS, Load Lines, and MARPOL.[239] In practice, the MSC[240] and the MEPC[241] normally approve the guidelines or recommendations that are directly related to their technical expertise in the circulars.[242] Additionally, NGOs often contribute to the development of these guidelines and recommendations in a significant manner. In particular, the

[235] International Maritime Organization, *MSC 98/23 Report of the Maritime Safety Committee on Its Ninety-Eight Session*, (2017), at p.20-21, para.4.3

[236] International Maritime Organization, MSC. 1/ Circ. 1565 Guidelines on the Voluntary Early Implementation of Amendments to the 1974 SOLAS Convention and Related Mandatory Instruments, (2017), at Annex, para.4.1

[237] IMO Convention, Art.28, 38

[238] IMO Convention, Art.2(a), 15(j), 21(b), 29(b) and 39(b)

[239] International Maritime Organization, Resolution A.1120(30) Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), (2017)

[240] IMO Convention, Art.28 (b)

[241] IMO Convention, Art.38 (a)

[242] Obviously, the IMO also recognised that the approval or adoption of guidelines or guidance on the implementation of treaties that have been made in the IMO forums are not subsequent agreements between parties in accordance with Article 31 of the VCLT. Moreover, the IMO also insisted that the IMO has never adopted any interpretative resolution as a subsequent agreement that would have legal effect on state parties, although the subsequent agreement could be made by resolutions adopted by state parties. See International Maritime Organization, *LC 33/J/6 Procedural Requirements in Relation to a Decision on an Interpretive Resolution – Views of the IMO Sub-Division of Legal Affairs*, (2011), at para. 3, 7.

International Association of Classification Societies (Classification Societies), which is an organisation representing NGOs specialising in ship design and construction and ship survey[243], has played an important role in developing and proposing the "unified interpretations" of shipping standards to the MSC and the MEPC.[244] Although the interpretative resolutions developed by these bodies are formally non-binding, they could considerably shape states' practices towards international shipping standards. Indeed, such guidelines could have legal effects in some circumstances.

Firstly, these committees can also adopt guidelines or recommendations as empowered by treaties through resolutions. Although these guidelines are not automatically binding on parties, some provisions of SOLAS and MARPOL legally require state parties to comply with these guidelines or recommendations.[245] The amendment of these guidelines or recommendations is simply through resolutions of the MSC or the MEPC, which greatly facilitates their evolution compared to formal treaty amendments.

Similarly, the IMO has also been empowered by treaties to develop and adopt interpretative resolutions in the form of Codes in order to ensure uniform practices. The IMO has developed Codes, which are particular sets of shipping standards, and incorporated them as an integral part of a treaty through the amendment procedures of the treaty. Various Codes developed by the IMO are transformed from non-binding interpretative instruments into binding instruments.[246] Therefore Codes would be regularly developed and adopted through resolutions by the committees and come into force in accordance with the procedure for amending treaty annexes. Moreover, some Codes have also been adopted by more than one technical organ of the IMO if they are applicable to multiple treaties relating to maritime safety and

[243] International Association of Classification Societies, *Charter*, (2009), at para. 1.2, 2.1(a)

[244] Until the present, IACS has monumentally contributed to the unified interpretation of numerous shipping standards in IMO treaties. See International Association of Classification Societies, 'Lists of UIs' <http://www.iacs.org.uk/publications/unified-interpretations/> accessed 20 April 2020

[245] For example, the MSC adopted the Recommendations for Material Safety Data Sheets (MSDS) for MARPOL Annex I Oil Cargo and Oil Fuel as the guidelines for ships of state parties to provide material data sheets "based on Recommendations developed by the Organization." See *International Maritime Organization, Resolution MSC.286(86) Recommendations for Material Safety Data Sheets (MSDS) for MARPOL Annex I Oil Cargo and Oil Fuel, (2009)*.

[246] International Maritime Organization, *LEG/MISC.8 Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization*, (2014), at p. 10

marine environmental protection. For example, the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) has been made mandatory by the adoption of the amendments to SOLAS[247] and MARPOL.[248] The binding interpretative resolutions developed by the Committees could monumentally ensure the uniform and universal implementation of the treaties, but they do impose greater burdens on states, with limited options to opt out.

Secondly, the guidelines adopted through the resolutions by the IMO may lead to legal consequences for state parties by virtue of the VCLT if the solutions are subsequent agreements or constitute subsequent practice establishing the agreement.[249] The International Law Commission (ILC) observed that subsequent agreements or subsequent practices that shall be considered in the interpretation of the treaty require "a common understanding" of state parties.[250] As states participating in the meeting of the relevant committees adopting the resolutions[251] have discussed the resolutions guiding state parties to interpret or apply the treaties, these states have already grasped and agreed to the guidelines for the interpretation

[247] In 1983, SOLAS 1974 was amended by making the IBC Code a part of the treaty. The MSC adopted the IBC Code in the same year. See International Maritime Organization, Resolution MSC.6(48), Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974, (1983). See also International Maritime Organization, Resolution MSC.4(48) Adoption of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), (1983).

[248] In 1985, MARPOL 1973/1978 was amended by making the IBC Code and BHC Code a part of the treaty. The MEPC then adopted the Codes through the MEPC resolution in the same year.
See International Maritime Organization, Resolution MEPC.16(22) Adoption of Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (Relating to Annex II of the International Convention for the Prevention of Pollution from Ships, 1973 as Modified by the Protocol of 1978 Relating Thereto, (1985); International Maritime Organization, *Resolution MEPC.19(22) Adoption of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)*, (1985).

[249] VCLT, Art.31(3)(a), (b)

[250] In 2018, the ILC adopted the draft conclusions on subsequent agreements and subsequent practice in relation to the interpretation of treaties, which provide guidelines for the interpretation of treaties in accordance with article 31 of the VCLT. Conclusion 10(1) of the draft conclusions emphasises that "a common understanding regarding the interpretation of a treaty" is required to conclude that the interpretative instrument is a subsequent agreement or subsequent practice establishing the subsequent agreement. See United Nations, 'Subsequent agreements and subsequent practice in relation to the interpretation of treaties', *A/73/10 Report of the International Law Commission*, (2018), at p. 75

[251] The ILC draft Conclusion 6(2) recognises that subsequent agreements in accordance with Article 31(3)(1) of the VCLT may appear in various forms. See UN (Ibid.), at p. 43.

or application of the treaties. If the majority of state parties participate and vote for the adoption, the state parties may be legally required to take into consideration these resolutions for the implementation of the treaties.[252] Notwithstanding, the common practice of the majority of state parties, particularly those performed to the large number of ships,[253] by complying with the resolutions may also constitute subsequent agreements since it signals that state parties commonly understand the application of the treaty and implicitly agree to apply the treaty by taking into consideration the interpretative resolutions. Therefore, by virtue of the VCLT, the interpretative resolutions adopted by the IMO could also considerably strengthen maritime safety and prevent marine pollution through uniform practice. This underlines that states, especially developing countries, do not possess the opportunity to opt out of these interpretative resolutions, even if they did not vote for the adoption of the respective instruments. States lacking the necessary technical capacity may encounter challenges when attempting to implement international shipping standards under these instruments. Unlike amendments achieved through tacit acceptance, the absence of this type of safeguard for developing countries has the potential to undermine the attainment of a treaty's objective, namely, its uniform implementation.

2.4.2 Opportunities and challenges for states in the standard-setting process

As previously examined, various standard-setting approaches exist that offer different safeguards for states, including the ability to object to a treaty or its

[252] The ILC observed in Conclusions 6(1) and 10(1) that subsequent agreements and subsequent practice do not only need a common understanding of state parties but also have to be determined by the position of state parties in the interpretation of the treaty. Although states participating in the meetings of the MSC or the MEPC act as member states, those that are state parties to the treaties should also recognise that the guidelines adopted by the majority of member states would be applied by the state parties. Therefore, the adoption of the interpretative resolutions by majority votes of state parties may reflect that the state parties adopting the resolutions have already taken a position in the interpretation of the treaty. However, the IMO resolutions have not listed states voting for the resolutions, in particular the identification of state parties, meaning that state parties may not yet take a position in the interpretation of the treaty, as the ILC observed in Conclusion 11 that the decisions of state parties in the meetings of parties acting as members of an organ of an organisation are not recognised as subsequent agreements. See UN (n 250), at p. 43-46, 78, 82.

[253] As the ILC observed in Conclusions 4(2), 5(1), and 10(2) that the subsequent practice that could constitute the subsequent agreement on the interpretation of the treaty includes all forms of conduct by the state parties that identify an agreement or common understanding, the practice of the majority of state parties should justify the common understanding among state parties in the application of the treaty. See UN (n 250), at p. 27, 30, 37, 43-44.

amendment and to delay the legal effect of an amendment. Chayes and Chayes observed that when the law-making process accommodates the interests of negotiating states, it fosters a greater propensity for these states to comply with the treaties.[254] Active participation in each negotiation enables state representatives to assert their national interests in international forums, acknowledge the domestic concerns of other countries, and engage in negotiations with other states during the standard-setting process. This participation empowers them to determine appropriate actions in accordance with their national interests.

Conversely, the absence of participation in standard-setting could undermine the legitimacy of adopted international shipping standards. This is particularly relevant for standards that have been tacitly accepted, as the lack of intention or consideration of domestic interests by certain countries to implement these international standards may diminish the likelihood of their universal application. Therefore, the opportunities for participation in standard-setting are also significant in ensuring the consistent implementation of international shipping standards.

Similar to Chayes and Chayes, Franck highlights that recognition of states' interests through their equal participation in the treaty-making processes and the consensual decision-making within the procedural and institutional framework could encourage states to implement the regulatory standards developed within such an institutional forum.[255] In addition to the participation of states, Tan also underlines that the involvement of the "key actors" having interests in maritime shipping in the decision-making processes, which includes diverse actors having maritime interests at national, regional, and international levels, could have a significant effect on the implementation of treaties.[256] Thus, compliance with treaties depends on the legitimate development of the treaties and the legitimate outcome of the negotiation as such. These theoretical approaches allow us to better understand the

[254] Abram Chayes and Antonia Handler Chayes, 'A Theory of Compliance', in *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press 1996), at p. 4

[255] Thomas M. Franck, 'Legitimacy in the International System' (1988) 82 the American Journal of International Law 705, at p. 752

[256] Alan Khee-Jin Tan, 'The Dynamics of the Law-Making Process: Actors, Arenas and Interests' in James Crawford and John S. Bell FBA (ed), in *Vessel-Source Marine Pollution* (Cambridge University Press 2006), at p. 29-74

compliance challenges associated with international shipping standards, as well as provide indications of the types of measures that might be required to respond. In particular, participation in the standard-setting process could heighten the possibilities of serving national interests and encourage the states to implement international shipping standards.[257] From this perspective, the participation of states, especially developing countries, which might possibly not effectively implement a treaty, is therefore a significant factor in strengthening the legitimacy of the treaty and promoting its uniform implementation.

There are ways in which the IMO seeks to support Member States in the standard-setting process. The IMO has not only provided a formal forum for negotiations and the preliminary meeting programmes to all Member States at least two months in advance, particularly that of MSC and the MEPC[258] Panke, Polat and Hohlstein also observed that the informal settings during the formal meetings, such as a coffee break, lunch, or reception, could also increase opportunities for states to present their national positions to other states, hence heightening the possibility of successful negotiations.[259] The IMO, through the Secretariat[260], also makes the audio and written record of the standard-setting process available for all member states via electronic systems to facilitate the participation of states.[261] Moreover, the circulation and notification of standard-setting outcomes are also provided through the electronic database.[262] These participatory opportunities enable states to present their domestic interests in the standard-setting forums while also

[257] Ibid.

[258] However, in practice, the IMO would publicise the meeting schedule of the expected meetings at least one year in advance. See Rule of Procedure of the Maritime Safety Committee, Rule 11; Rules of Procedure of the Marine Environment Protection Committee, Rule 11; International Maritime Organization, *PROG/132/Preliminary Preliminary Programme of Meeting for 2024*, (2022).

[259] Diana Panke, Gurur Polat and Franziska Hohlstein, 'Satisfied or not? Exploring the interplay of individual, country and international organization characteristics for negotiation success' (2020) 16 Review of International Organizations 403, at p. 410.

[260] See also Section 2.3.3 (d) above.

[261] The IMO publishes documents produced from the IMO meetings in the IMO web service and also circulates the adoption of a treaty or amendments to a treaty via electronic mail system in lieu of paper-based notification to each member state. See International Maritime Organization, *Circular letter No. 2300 Electronic transmission of IMO meeting documents*, (2001); International Maritime Organization, *Circular letter No.2855 Enhanced IMODOCS website*, (2008). See also International Maritime Organization, *Circular Letter No.3417 Posting of certified copies of IMO treaties and amendments thereto on the IMODOCS website*, (2013).

[262]See IMO (Circular letter No.28855, No.3417*)*, (Ibid.)

acknowledging the standard-setting activities, which include the negotiations in the contextual and technical development of international shipping standards, thus literally ensuring the mutual understanding of the international standards. Hence, all states should take advantage of these participatory opportunities efficiently in order to ensure that their interests are presented in a standard setting.

Bearing in mind that the MSC and MEPC also have their own subsidiary bodies, such as sub-committees and working groups to consider technical matters relating to international shipping standards, these bodies can also convene meetings at least once a year, similar to their parent committees.[263] For example, in 2023, there will be at least twelve meetings of these technical bodies to consider and develop international shipping standards relating to numerous conventions relating to maritime safety and ship-source pollution prevention.[264] The number of meetings in each year and their technical content might impose a significant burden on some states, especially developing countries, which might lack the financial and technical capacity for participation. To ensure that participation in standard-settings will be effective, states should therefore have a sort of domestic cooperation and the exchange of information among relevant agencies to prepare for participation and ensure that participation will be efficiently performed in line with domestic interests. Nevertheless, these domestic settings might also require financial resources and technical experts, which can be significant challenges for developing countries in standard settings.

Yet, the regular development of international shipping standards makes the international legal framework for maritime shipping increasingly complex, requiring an understanding of standard-setting techniques and the contextual framework of IMO treaties in order to be able to transpose the international standards into the national legal framework appropriately. It might also reflect that states should have a sort of system in place to follow up on the amendments to treaties, enable the

[263] See Rules of Procedure of the Maritime Safety Committee, Rule 2 ,3, 11; Rules of Procedure of the Marine Environment Protection Committee, Rule 2, 3, 11.
[264] See International Maritime Organization, *PROG/131 Programme of Meetings for 2023*, (2022).

transposition of newly adopted international standards into national legislation, and enforce them when the amendments come into force.

In addition to the potential challenges relating to the complexity of the international legal framework for maritime shipping, the participatory approach and the attempt of the IMO to facilitate the standard-setting process through electronic publication, particularly the advance publication of annual meeting programme including timetable and summary reports of the meetings might be insufficient for ensuring the full implementation of international shipping standards unless state parties to IMO treaties also develop domestic administration in line with the opportunities provided by the IMO to ensure that states could engage in the standard-setting process and transmit the meeting outcomes to domestic stakeholders involved in the implementation of IMO treaties. Moreover, the participatory opportunities given to all states may not be efficiently taken by some countries because of financial constraints or inefficient administrative management for the treaty negotiation.

2.5 Application of international shipping standards through the rule of reference

It is crucial to note that international shipping standards developed by the IMO are implemented not only by states party to the relevant treaties, but also potentially by non-party states. This can occur if the standards become customary international law or are incorporated into the UNCLOS through the rules of reference. This incorporation is often signalled by phrases such as "generally accepted" and "applicable."

How to identify particular international standards that are “generally accepted” is contested. Valenzuela [265] and the IMO [266] insisted that international standards adopted by the IMO that have met the quantitative and qualitative criteria for the entry into force of treaties should be adequate to be recognised as generally accepted standards. This observation, however, has some arguable concerns. Harrison argues that the criteria for the entry into force of each individual treaty is

[265] Generally, the entry into force of IMO treaties is triggered by a certain number of states and the percentage of the aggregate carrying capacity of ships flying their flags, compared with the ships’ carrying capacities around the world.
[266] LEG/MISC.8 (n 246), at p. 7-15.

not exactly the same; the observation of Valenzuela allows a few state parties to some treaties to be able to make other states (which may not agree with the treaties and/or be absent from the adoption) become obligated to the treaties through the rules of reference under UNCLOS.[267] If the international standards have not been consensually adopted, a number of objections may hamper the incorporation of the standards into UNCLOS.[268] Moreover, this interpretation equates "generally accepted [international] standards" to "applicable [international] standards"[269], meaning that it might undermine the rule of reference so-called "applicable [international] standards," which was intentionally used in UNCLOS. This interpretation prevents international shipping standards, which have been adopted in soft law instruments and widely applied in practice among states, from being incorporated into UNCLOS. Besides, this restricted interpretation is inconsistent with the original objective of the introduction of rules of reference in UNCLOS, which is to incorporate the internationally practiced "rules of the road at sea" of the UK into the treaty[270]. Oxman[271] also observed that international shipping standards that are "generally accepted" under UNCLOS should be those that meet the dual criteria for entry into force: the implementation of states in practice and also the practice of individuals or private entities that are objects of the treaties. The latter condition may be reflected in the outcome of port state control.

[267] Harrison (n 174), at p. 174
[268] Harrison (n 174), at p. 176
[269] Harrison (n 174), at p. 176
[270] The rules of reference were originally developed by the International Law Commission during the development of the law of the sea and integrated into the 1958 Convention on the High Seas (1958 Convention), which was the predecessor of UNCLOS. The phase "generally accepted international standards" was inserted into the 1958 Convention with a view to ensuring universal application of certain rules of the road at sea, which were later developed and adopted as COLREG 1969, and safety standards on the high seas. These rules of the road were not officially adopted as a treaty but were internationally applied by numerous traditional maritime states. See Bernard H. Oxman, 'The Duty to Respect Generally Accepted International Standards' (1991) 24(1) New York University Journal of International Law and Politics 109, at p. 121-124. For details on the international application of the rules of the road at sea, see Alvin Clifford Johnston, *A Treatise concerning itself with the history and development of the rules of the road at sea* (Georgetown University 1932), at p. 8-10.
[271] Oxman (Ibid.), at p. 141-143

Some authors, such as Reenan[272] and also the US Supreme Court in *Scotia*[273] observe that international standards will become generally accepted standards, whether they are binding or non-binding, when they become customary international law. But Oxman argued that international standards become customary international law, especially when they "satisfy norm-creating and opinio juris," whereas generally accepted international standards do not necessarily have to meet these requirements.[274] It is also worth noting that incorporating international shipping standards into UNCLOS through the rules of reference may undermine the legitimacy of the international shipping standards.[275] Since some parties to UNCLOS are not also parties to the IMO treaties, they lack opportunities to participate in standard-setting and object to the standards adopted. However, the principle of persistent objector is not completely inapplicable. States that are also parties to the IMO treaties and have objected to the treaty may not be obliged to comply with international standards when the treaty has been generally accepted and incorporated into UNCLOS.[276]

To date, 144 out of 183 state parties to UNCLOS, contributing to over 97 percent of the world shipping carrying-capacity, are also parties to the major IMO treaties, including SOLAS, COLREG, Load Lines, TONNAGE, STCW, Annex I and II of MARPOL.[277] Obviously, state parties to UNCLOS, which are also parties to these treaties, are obliged to abide by these treaties. These states might also make the major IMO treaties become generally accepted international standards under UNCLOS, hence requiring all state parties to UNCLOS to comply with the treaties, except those who explicitly objected to these treaties when they were adopted. This conclusion, however, should also take into consideration the evidence from the results of port

[272] Van Reenan, 'Rules of Reference in the new Convention on the Law of the Sea' (1981) 12 Netherlands Yearbook of International Law 3, at p. 11
[273] *The Scotia* (1781) 81 US Report, at p. 187
[274] Oxman (n 270), at p. 147
[275] As observed by Chayes and Chayes and Franck, the legitimacy of the standards is one of the significant factors in the implementation of a treaty. Chayes and Chayes (n 254), at p. 4. See also Franck (n 255), at p. 706
[276] Harrison (n 174), at p. 178-179
[277] For information on the ratification of UNCLOS, see UN Treaties Series. The information on the ratifications of IMO treaties and national shipping carrying capacities is derived from the IMO database (GISIS).

state control, which, to some extent, shows the performance of flag states in controlling and monitoring the treaty compliance of ships flying their flags. In addition to the generally accepted international standards for flag and coastal states, the Convention also empowers states in their capacities as port and coastal states to enforce international shipping standards that are "applicable" under UNCLOS, meaning that state parties to UNCLOS are also obliged to comply with some international shipping standards adopted by the IMO to which they are also parties.

International shipping standards, particularly those that aim to protect the marine environment, might also be enforced by a state authorised by the international community [278]. Although lacking clear terminology, the notion of "community interest" has been widely studied. [279] Generally, the core value of this notion is justified by the concern of all states, as reflected through standard-setting[280] and international instruments. [281] Many international lawyers observe that states, although they have not yet been affected by the non-compliance of another state, may also act as "an agent of an international community" [282] in enforcing international standards on such states through available compliance mechanisms, particularly dispute settlement and port state control. The community's interest in marine environment protection within and beyond national jurisdiction is evident in multiple international instruments. UNCLOS, the most prominent instrument, aims

[278] This notion has also been applied in various fields of international law. See Eyal Benvenisti and Georg Nolte, *Community Interests Across International Law* (Oxford University Press 2018).
[279] Millicent McCreath, 'Community Interest and the Protection of the Marine Environment within National Jurisdiction' (2021) 70 International and Comparative Law Quarterly 569, at p. 574
[280] International lawyers such as Simma, Wolfrum, and Klabbers observed that the broad adoption and ratification of a treaty in an international forum providing participatory opportunities to all states are evidence of community interest. See Bruno Simma, 'Community interest and international treaties : Part One', in *From Bilateralism to Community Interest in International Law* (Recueil des Cours 1994), at p. 323-326; Rüdiger Wolfrum, 'Identifying Community Interests in International Law' in Eyal Benvenisti and Georg Nolte (ed), *Community Interests Across International Law* (Oxford University Press 2018), at p. 20-21; Jan Klabbers, 'What Role for International Organizations in the Promotion of Community Interests? Reflections on the Ideology of Functionalism' in Eyal Benvenisti and Georg Nolte (ed), *Community Interests Across International Law* (Oxford University Press 2018), at p. 93.
[281] Besson observed that community interests can be the objects of norms or regimes such as the environmental law regime and the international law of the sea, which protect them, and can be reflected in multilateral agreements or customary international law, which are the sources of international law. See Samantha Besson, 'Community Interests in International Law Whose Interests Are They and How Should We Best Identify Them?', in Eyal Benvenist and George Nolte (ed), *Community Interests Across International Law* (Oxford University Press 2018), at p. 41-42.
[282] Bruno Simma and Andreas L. Paulus, 'The 'International Community' : Facing the Challenge of Globalization' (1998) 9 European Journal of International Law 266, at p. 275

to protect and preserve the marine environment and clearly recognises that "the area of the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction as well as its resources, are the common heritage of mankind"[283]. The International Tribunal for the Law of the Sea (ITLOS) also accepted that marine environmental protection within national jurisdiction is also in the interest of the international community[284], for example, a provision on measures to prevent, reduce, and control pollution from ships.[285] The community's interest in preserving and protecting the marine environment is implicitly recognized in IMO treaties such as MARPOL[286]. Furthermore, this community interest has also been re-emphasised in soft law instruments, particularly international principles and declarations including sustainable development goals (SDGs)[287], Agenda 21[288] and the precautionary principle specified by the Rio Declaration[289], which are widely recognised in international forums. For instance, resolutions of the General Assembly of the United Nations (UNGA) reiterate the significance of marine environmental protection from ship-source pollution as specified in Agenda 21.[290] The IMO organs also accept the SDGs and Chapter 17 of Agenda 21 by also taking a precautionary

[283] UNCLOS, preamble, Part XII. See also McCreath (n 279), at p. 585.
[284] *Request for Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)* (Advisory Opinion of 2 April 2015) ITLOS Reports 2015, at para.120
[285] UNCLOS, Art. 192, 194, para.3(b)
[286] MARPOL, Preamble, art.1. See also McCreath (n 279), at p. 584
[287] The principle of sustainable development adopted by paragraph 17.1 of Agenda 21 has later been applied to the Sustainable Development Goals, particularly Goal 14. This principle has also been recognised by the IMO. See United Nations, *A/CONF.151/26/Rev.l (Vol. I) Report of the United Nations Conference on Environment and Development* (1993), Annex I (Rio Declaration), Annex II (Agenda 21); United Nations General Assembly, *Res 70/1 Transforming our world: the 2030 Agenda for Sustainable Development*, (2015) (2030 SDGs), at p. 23-24, Goal 14. See also Rüdiger Wolfrum, 'Enforcing Community Interests Through International Dispute Settlement: Reality or Utopia?' in Rudolf Geiger Ulrich Fasttenrath, Daniel-Erasmus Khan, Andreas Paulus, Sabine Von Schorlemer and Christoph Vedder (ed), in *From Bilateralism to Community Interest: Essays in Honour of Judge Bruno Simma* (Oxford University Press 2011), at p. 1136. For the recognition of SDGs by the IMO, see International Maritime Organization, 'IMO and Sustainable Development' <https://wwwcdn.imo.org/localresources/en/MediaCentre/HotTopics/Documents/IMO%20SDG%20Brochure.pdf> accessed 5 February 2022
[288] See A/CONF.151/26/Rev.l (Vol. I) (Ibid.), Annex II, para.17.1
[289] See A/CONF.151/26/Rev.l (Vol. I) (n 287), Annex I, Principle 15
[290] For example, Chapter 17 of Agenda 21 including the sustainable development principle, which illustrates the concern of the international community in protecting the marine environment, has been continually recognised by the United Nations (UN) since 1998. See United Nations General Assembly (UNGA), *A/RES/52/26 Oceans and the law of the sea*, (1998), at preambular paragraph 4; United Nations General Assembly (UNGA), *A/RES/76/72 Oceans and the law of the sea*, (2021), at preambular paragraph 8, 17, 54.

approach to standard-setting and developing measures to prevent pollution from ships.[291] These international instruments reflect that community interest in the protection and preservation of the marine environment may have higher status than other customary international obligations, hence having *erga omnes* character.[292] State parties to UNCLOS are therefore obliged to comply with international shipping standards incorporated through the rules of reference while also fulfilling the community interest in marine environmental protection. However, states are required to comply with treaties even if they did not participate in their adoption. While this approach can foster the universal implementation of treaties, the omission of acceptance procedures and the lack of safeguards for countries, particularly developing countries, may diminish the legitimacy of international standards, leading to nonuniform implementation.

2.6 Conclusion

Before the mid-nineteenth century, the diplomatic conference was the main method for developing international shipping standards. Since the conferences were initiated and hosted by an individual state, they obstructed the development of international standards towards universal practices and could not strengthen global maritime safety and marine environmental protection. Since 1958, the establishment of the IMO has significantly enhanced the development of treaties by introducing new options for treaty-making, providing negotiation forums, and facilitating the negotiations, underlined by the participatory and non-discriminatory principles applied by the Organisation. Although the IMO has still employed the diplomatic conference to establish a new treaty, the processes of the development of treaties engaged by Member States and NGOs within the IMO could support internationally practicable standards that enable various states to accept the treaties. Moreover, treaties developed by the IMO have regularly been amended by tacit amendment

[291] International Maritime Organization, *Resolution MEPC.67(37) Guidelines on Incorporation of the Precautionary Approach in the Context of Specific IMO Activities* (1995), at para.1, 3, 4.2, 4.9, 4.11

[292] *Responsibilities and Obligations of States with Respect to Activities in the Area* (Advisory opinion of 1 February 2011) ITLOS Reports, at para. 180.
Maurizio Ragazzi, 'Selected Candidates of Obligations Erga Omnes Proposed in the International Literature' in Ian Brownlie (ed), *The Concept of International Obligations Erga Omnes* (Oxford University Press 2000) See McCreath (n 279) at p. 576, 601.

procedures, which could ensure the entry into force of the new regulations for the majority of states in a timely manner. Interpretative resolutions and other guidelines developed by the IMO could provide practical means to encourage states to implement the standards in a uniform manner. Nevertheless, there are limits to the innovative approaches that may be used to develop the international legal framework. Significant parts of treaties, such as articles, are still required to be amended with the consent of each state. In addition, the attempt to introduce the provisional application of amendments to SOLAS shows that the attempts of the IMO to speed up the entry into force of the amendments and the treaty are not always successful.

Whereas the role of the IMO in treaty making has undoubtedly led to improvements in the international legal framework, it cannot ensure that the IMO achieves its aims in full, particularly the promotion of universal and uniform implementation of treaties. In particular, the supportive mechanisms of the IMO to promote and enforce implementation need to be further studied in order to assess the practical effectiveness of the treaties and the achievement of the IMO's objectives. The participatory opportunities given by the IMO should also be taken up by all states to channel their domestic interests and also transfer the negotiations' outcome to the national stakeholders for implementation; hence, states should have a sort of system in place for preparing treaty negotiations and domesticating the outcomes. The next chapter will then explore and analyse how the international legal framework relating to maritime shipping promotes compliance with international shipping standards.

Chapter 3 The international mechanisms to enforce international shipping standards

3.1 Introduction

Alongside standard-setting techniques, the enforcement of international shipping standards is also vitally important for achieving the objectives of the IMO. Since the early 2000s, as shown in the organisational policies and strategies of the IMO[1], the Organisation has also recognised the effective implementation of IMO treaties as a significant factor in achieving its aims. Nevertheless, until the present, international shipping standards have not yet been uniformly implemented among state parties[2], and so this remains a key challenge for the Organisation.

The technical and financial incapacities in implementing international shipping regulations are one of the major obstacles to achieving uniform implementation of the international regulations, particularly those of developing countries.[3] Challenges include the lack of technical and legal experts assisting the implementation of IMO treaties, the lack of financial resources for the implementation, and poor administrative management within states.[4] These problems may undermine the legitimate quality of treaties' ability to perform effectively in promoting their implementation. Obviously, technical incapacity is a significant root cause of ineffective implementation of treaties, particularly for developing countries. It therefore has to be considered when examining and evaluating the options available to address the enforcement of regulatory standards by individual states.

The jurisdictional framework for enforcement of shipping standards needs to be understood with reference to both the IMO treaties themselves and the legal framework established by UNCLOS. In this respect, international law recognises a

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[1] International Maritime Organization, *Resolution A.944(23) Strategic Plan for the Organization (For the Six-Year Period 2004 to 2010)*, (2004), at para. 3

[2] International Maritime Organization, *III 5/INF.3 Analysis of Consolidated Audit Summary Reports*, (2018)

[3] See Abram Chayes and Antonia Handler Chayes, 'A Theory of Compliance', in *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press 1996), at p. 9. See also Saiful Karim, 'Implementation of IMO Legal Instruments: International Technical and Financial Cooperation', in *Prevention of Pollution of the Marine Environment from Vessels: The Potential and Limits of the International Maritime Organisation* (Springer 2015), at p. 137-138.

[4] Jianxin Zhu, 'Asia and IMO technical cooperation' (2006) 49 Ocean & Coastal Management 627, at p. 627-630

role for flag states, coastal states, and port states in enforcing international shipping standards. At the same time, enforcement cannot be left entirely to states.

Since the IMO does not have enforcement power itself, in addition to the traditional means for dispute settlement, the Organisation has also employed various approaches that are rather managerial and cooperative than coercive in promoting treaty implementation. These approaches are generally executed by either the IMO or state parties to the treaty. The "most traditional" approach to strengthening the uniform implementation of international shipping standards might be the reporting obligations in IMO treaties.[5] The IMO has increasingly promoted the effective implementation of international shipping standards, underlined by the non-discrimination principle,[6] by establishing the reporting system, which is the institutional machinery for exchanging relevant information with respect to the national implementation and enforcement of the IMO, based on the transparency principle. The IMO later expanded the report on certain issues as required by the treaties[7] to include the report on detailed implementation of the treaty[8] and also integrated this approach with other approaches, including review, verification, and monitoring, as part of mechanisms to promote treaty compliance. An audit scheme is also another institutional mechanism developed by the IMO to execute the embedded compliance mechanisms in IMO treaties. Such mechanisms are also combined with institutional technical assistance.

The main focus of this chapter is to explore available mechanisms to ensure that international shipping standards will be transposed into a domestic legal framework and legally enforced in response to violations of the international standards. This chapter will therefore explore the mechanisms of the IMO and IMO treaties for enforcing international shipping standards and analyse how they have been executed. Before analysing the relevant mechanisms, however, it is necessary to

[5] Erik J. Molenaar, 'Shipping: vessel-source Pollution' in Robin Warner and Stuart Kaye (ed), *Routledge handbook of maritime regulation and enforcement* (Routledge 2016), at p. 185
[6] IMO Convention, Art.1(b)
[7] For example, article 11 of MARPOL; Article IV of STCW. See details and discussion in the section 3.3.2(1) below.
[8] STCW, Reg. I/7, section A-I/7. See Molenaar (n 5), at p. 185.

understand the theoretical framework and particularly the distinction that can be drawn between "enforcement" and "compliance."

3.2 A theoretical approach to enforcement and compliance

The exploration of international shipping standards development in the previous chapter revealed the complexity and evolution of the international legal framework for maritime shipping. This complexity is further underscored by the participatory opportunities offered to all IMO member states and the involvement of non-governmental organizations (NGOs) with technical expertise in shipping standards. The investigation of the standard settings under the institutional framework of the IMO shows that the cooperative approach is an underlying methodology for the development of international shipping standards. This method is aligned with the well-recognised managerial theory of treaty compliance observed by Chayes and Chayes, which states that the recognition of domestic interests in the international forum and norm-creating activities could promote the compliance of a treaty. Similar to Chayes and Chayes[9], Franck also observed that the legitimacy of the treaty, which could be found in the norm-creating activities of the IMO[10], could promote treaty compliance. However, it is also necessary to consider how this theoretical framework explains how implementation is achieved following adoption. In the first place, it is necessary to distinguish between "enforcement" and "compliance."

Enforcement can generally be understood as "the act or process of compelling compliance with a law, mandate, command, decree, or agreement"[11]. Traditional international law stipulates the legal consequences of the non-performance of treaties, resulting in the so-called secondary obligations of the states to resume the performance of the treaties.[12] To enforce the secondary obligation, the law of state responsibility gives the states of concern the right to take a temporary

[9] Chayes and Chayes (n 3), at p. 2

[10] Thomas M. Franck, 'Legitimacy in the International System' (1988) 82 the American Journal of International Law 705, at p. 712

[11] Bryan A. Garner*, Black Law's Dictionary* (8th Edition), 2004

[12] United Nations General Assembly (UNGA), A/RES/56/83 Responsibility of States for internationally wrongful acts (2001), Annex, Draft article 2, 12, 28-30.

countermeasure under the principles of proportionality and necessity [13]. Nevertheless, this traditional approach may be ineffective for ensuring the uniform implementation of IMO treaties due to several observations.

Firstly, this approach is a "self-help"[14] approach, which is rather subjective as the countermeasure could be executed by a state party having interests in determining the non-performance of treaties and choosing a countermeasure[15] at its cost and capacity. This approach deals with the inadequate implementation of a treaty by an individual state on a case-by-case basis[16], while the challenges of the state causing the insufficient implementation of IMO treaties might also be common among many states. Countermeasures are unlikely to encourage all state parties to implement the international shipping standards uniformly. Crawford also observed that this traditional approach does not allow a "collective entity with capacity to act," especially in response to a wrongful act relating to international environmental obligations.[17] Since the individual discretion on the proportionality and necessity of the countermeasures might require the scientific or technical capacity of the state, such as those related to environmental issues[18], this condition might also be a monumental challenge for some states, particularly developing countries. Although state parties are also able to take other "lawful measures," in practice, states are

[13] See article 25 and 51 of the Law of State Responsibility (Ibid.). See also James Crawford, 'Circumstances precluding wrongfulness' in James Crawford and John S. Bell (ed), *State Responsibility: The General Part* (Cambridge University Press 2013), at p. 308-309

[14] United Nations, Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries 2001, (2008), at, p. 75

[15] In line with article 48 of the Draft Articles on Responsibility of States for Internationally Wrongful Acts 2001, which lays down the right of a state not to have been injured by the wrongful act of another state, the International Court underlined that the claim for state responsibility with respect to the breach of an international obligation can only be invoked by a party to the treaty. See *Reparation for Injuries Suffered in the Service of the United Nations*, ICJ [1949] Rep 149, at p. 181-182. See also Katja Creutz, 'Problems in the General Law of State Responsibility', in *State Responsibility in the International Legal Order: A Critical Appraisal* (Cambridge University Press 2020), at p. 171.

[16] In Gabčíkovo-Nagymaros, the International Court of Justice underlined that the countermeasure must be taken directly against the state failing to perform the treaty. See *Gabcikovo-Nagymaros Project (Hungary/Slovakia)*, ICJ [1997] Rep 7, at p. 55. See also Crawford (n 13), at p. 292-295; UNGA (n 12), Annex, Draft Art. 22.

[17] James Crawford, 'Collective or ancillary responsibility' in James Crawford and John S. Bell (ed), *State Responsibility: The General Part* (Cambridge University Press 2013), at p. 365-366

[18] Crawford and Bell (n 13), at p. 311

reluctant to take a countermeasure or lawful measure in response to the violation of a treaty.[19]

Secondly, another disadvantage of the law of state responsibility with respect to the breach of international shipping standards is that it is reactive. This approach is contradictory to the aims of the IMO treaties, which are to ensure maritime safety and prevent pollution from ships. This responsive approach might not prevent maritime incidents resulting from the breach of IMO treaties, although it may influence compliance with the treaties later on. Therefore, this traditional approach might not be appropriate for applying to IMO treaties.

Thirdly, the law of state responsibility focuses primarily on the "wrongful act" of a state, regardless of the intention of the state,[20] without addressing the question of why states have not complied, how states should resume the performance of a treaty, or how to maintain the effective implementation of the treaty over time.[21] This traditional approach was described as "highly abstract"[22] and "provide inadequate guidance to the resolution or adjudication of specific problems."[23] This approach also disregards the multidimensional challenges behind the acts of states, especially those lacking technical or financial capacities. Therefore, the countermeasure is likely to encourage only some states with the capacity to implement international shipping standards.

Obviously, the law of state responsibility focuses on the responsibility of the states regardless of their ways towards the expected outcome, which is to perform the international obligations. The challenges of the traditional law of state responsibility illustrate the difficulties in ensuring uniform implementation of international shipping standards developed systematically by the IMO, which also takes into consideration the interests of states. Therefore, this traditional approach, which relies heavily on the action, discretion, and capacity of individual states, may be

[19] See UN (Draft articles) (n 14), at p. 137-139
[20] James Crawford, 'Key concepts' in James Crawford and John S. Bell (ed), *State Responsibility: The General Part* (Cambridge University Press 2013), at p. 60-62. See also UN (Draft articles) (n 14), at 36
[21] Creutz (n 15), at p. 116-117
[22] Creutz (n 15), at p. 116-117
[23] Sterling Scott, 'Codification of State Responsibility in International Law: A Review and Assessment' (1985) 9 ASILS International Law Journal 1, at p. 27

ineffective for the implementation of IMO treaties, which are highly technical and constantly evolving. As such, the non-uniform implementation of IMO treaties, which aims to strengthen maritime safety and prevent pollution from ships throughout the world, should be tackled by other approaches that pave the way towards universal implementation.

The problems of the law of state responsibility and the need for some sort of implementation mechanism in the context of the international shipping sphere reflect that the non-uniform implementation of IMO treaties could not be solved simply by a countermeasure taken by an individual state but rather require multiple mechanisms for ensuring uniform implementation of the IMO treaties. These conditions have been concerned by the well-known compliance approaches of Chayes and Chayes[24] and Franck[25], who rely on managerial notion and legitimacy.

In contrast to "enforcement," the term "compliance"[26] is generally used to focus on the behaviour of states to make international standards effectively meet their objectives, meaning that it has a broader meaning than "enforcement" of national laws and regulations. Hence, the broad functions of compliance mechanisms include those inducing the practices of states in prioritising the compliance of treaties in national policies, performing administrative functions, policies, and legal enforcement in order to achieve the aims of treaties. To enhance treaty compliance, Chayes and Chayes paid attention to the interactive process between international organisations, which promotes treaty compliance, and the states bound by the treaty.[27] They also recognised some particular challenges in the implementation of treaties, including the determinative contextualisation of the treaty and the

[24] Abram Chayes and Antonia Handler Chayes, The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1995)
[25] See Franck (n 10), at 705-759
[26] The "compliance" might give answers to the question of how states take actions and measures necessary to meet international obligations. See Ronald B. Mitchell, 'Regime Design Matters: Intentional Oil Pollution and Treaty Compliance' (1994) 48 International Organization 425, at p. 428; Harold K. Jacobson and Edith Brown Weiss, 'A Framework Analysis' in Edith Brown Weiss and Harold K. Jacobson (ed), *Engaging Countries: Strengthening Compliance with International Accords* (The MIT Press 1998), at p. 4-5; Teall Crossen, 'Multilateral Environmental Agreements and the Compliance Continuum' (2004) 16 Georgetown International Environmental Law Review 473, at p. 477-478.
[27] Abram Chayes and Antonia Handler Chayes, 'Toward a Strategy for Managing Compliance', The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1995), at p. 109-111

limitation of the capacity of states, while suggesting the "managerial model" of compliance as a means to tackle these challenges.[28]

The managerial theory of treaty compliance observes that the temporal dimension of treaty implementation and the ambiguity of a treaty are the major challenges for compliance.[29] These challenges can be eased through dispute settlement and transparent-oriented and persuasive mechanisms in the "interactive process of justification, discourse, and persuasion" rather than coercive means.[30] Chayes and Chayes observe that the transparency principle could promote treaty compliance through coordination among states, such as the regional agreements on port state inspections, which use notification and communication with flag states to enforce international standards that are in the common interest of the international community.[31] The reassurance of treaty compliance by other state parties by revealing the performance of a treaty by other parties could also induce state parties to implement the treaty[32], hence promoting uniform implementation. The mechanisms under this approach are, for example, the reporting of treaty performance by state parties to the treaty and the verification and monitoring of treaty compliance. Last but not least, deterrence mechanisms such as "naming," which force a "sense of shame" on states with poor performance, could also induce these poor-performing states to improve their practices toward international obligations.[33] In addition to the transparent-oriented approaches, Chayes and Chayes also observe that policy review and assessment are also mechanisms for making all compliance mechanisms work together coherently.[34]

[28] Chayes and Chayes (n 3), at p. 3
[29] Chayes and Chayes (n 3), at p. 9-17
[30] Chayes and Chayes (n 3), at p. 22-28
[31] Chayes and Chayes (n 3), at p. 22-24
[32] Abram Chayes and Antonia Handler Chayes, 'Transparency, Norms, and Strategic Interaction', *The New Sovereignty: Compliance with International Regulatory Agreement* (Harvard University Press 1996), at p. 144-151
[33] Abram Chayes and Antonia Handler Chayes, 'Policy Review and Assessment', *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press 1995), at p. 230
[34] Ibid., at p. 249

The section below will apply the managerial theory of treaty compliance as a theoretical basis to identify and analyse international mechanisms aimed at promoting treaty compliance.

3.3 Mechanisms to promote enforcement and compliance

Under the international legal framework governing maritime shipping, many mechanisms exist to promote enforcement and compliance with international shipping standards. These mechanisms can be categorised into two groups based on their drivers: one primarily driven by individual states, mostly with a bilateral character, and another led by the IMO as an institution. In the following sections, we will examine and analyse these mechanisms to reveal how they have been executed in ensuring uniform implementation of international shipping standards by states.

3.3.1 Mechanisms driven by individual states

(1) Dispute settlement

Dispute settlement is generally executed as a means to handle international disputes between states with respect to the application or interpretation of the treaty.[35] However, this mechanism can also clarify international standards, their application, and even assist states in identifying their duties in a particular circumstance.[36] This mechanism offers solutions to disputes between states, particularly port or coastal states and flag states, concerning the interpretation or application of international shipping standards. For example, it addresses situations where a flag state's action in controlling a substandard vessel under its flag fails to meet the port or coastal state's expectations due to differing interpretations of the standards. Additionally, it can resolve disputes between these states regarding the application of the standards in specific circumstances, as will be further discussed in Section 3.3.1(1)(a). Moreover, the dispute settlement also facilitates the implementation of international standards.[37] Chayes and Chayes observe that dispute settlement is "a strategy for active management of the compliance process" and also deal with the

[35] VCLT, Art.66; UN Charter, Art.33.
[36] Natalie Klein, 'Litigation over Marine Resources: Lessons for Law of the Sea, International Dispute Settlement and International Environmental Law' (2009) 28 Australian Year Book of International Law 131, at p. 170
[37] Ibid.

ambiguity of international obligations, which could cause the non-uniform implementation of treaties.[38] This mechanism could assist states, especially developing countries, in interpreting or applying highly technical standards.[39] As long as the result of a settlement has "authoritative" character[40], the dispute settlement could establish and strengthen the normative quality of international standards, contributing to the uniform implementation of the treaty.[41] Nevertheless, the disputes are assumingly bilateral in nature[42], and so one particular state is affected by the failure to implement a treaty. Hence, the effectiveness of the dispute settlement in promoting uniform implementation of treaties may depend on the qualities of the dispute settlement, which could encourage states to comply with the treaties[43].

International disputes relating to the implementation of a treaty, particularly the interpretation or application of the treaty, could be solved through numerous means, including negotiation, inquiry, mediation, conciliation, arbitration, and judicial settlement, as provided by the Charter of the United Nations[44] (UN Charter). The first four approaches are diplomatic means, which are mostly prioritised by treaties[45], to achieve the solutions, while the rest are clearly formal adjudications, which generally have legal binding on parties to the dispute.

(a) Informal dispute settlement

[38] Chayes and Chayes (n 3), at p. 24. See also Abram Chayes and Antonia Handler Chayes, 'Instruments of Active Management', *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press 1995), at p. 197

[39] Chayes and Chayes observed that the ambiguity of international rules and regulations could lead to non-compliance with the treaty. See Chayes and Chayes (n 38), at p. 201

[40] Abram Chayes, Antonia Handler Chayes and Ronald B. Mitchell, 'Active Compliance Management in Environmental Treaties' in Winfred Lang (ed), *Sustainable Development and International Law* (Graham and Trotman Ltd. 1995), at p. 84

[41] Ibid.

[42] United Nations Environment Programme (UNEP), 'Study on Dispute Avoidance and Dispute Settlement in International Environmental Law' in Alexandre Timoshenko (ed), *Dispute Avoidance and Dispute Settlement in International Environmental Law* (United Nations Environment Programme 2001), at p. 6

[43] These qualities include the interest of states in international obligations and their legitimacy, which are observed by Chayes and Chayes as the significant factors contributing to treaty compliance. See Chayes and Chayes (n 3), at p. 2.

[44] UN Charter, Art.33

[45] Chayes and Chayes (n 38), at p. 201

The informal approaches, which include negotiation, inquiry, which is "an impartial third-party procedure for fact-finding and investigation"[46], and mediation, which is a diplomatic means where a neutral third party steps in to help resolve disputes between the involved parties by suggesting "mutually acceptable compromise solutions"[47]. Conciliation is another informal means, a diplomatic approach that combines inquiry and mediation. In conciliation, a neutral third party intervenes in the dispute to investigate and clarify the facts thoroughly, while proposing mutually acceptable solutions to the problem.[48] These informal means for settling a dispute require cooperation among the parties to the dispute, showing that opportunities are provided for the states to exchange their views on the implementation of the treaty.

The informal approaches of the settlement processes, although lacking in legally binding effect, could induce the implementation of treaties through institutional mechanisms, particularly institutional bodies and procedures of international organisations since the institutional machines could make the settlement solutions "authoritative or semi-authoritative".[49] The informal approaches allow state parties to exchange their understandings of the international standards[50] while also keeping the process confidential if they wish. These qualities might prevent future disputes and may also cease potential non-compliant behaviours early before they are committed.[51] These diplomatic means offer the opportunity for settlements without strict adherence to international regulatory standards[52], thus allowing flexibilities for states, especially developing countries, to implement treaties on the dispute based on their technical capacity.

Informal means for the settlement of disputes have been explicitly recognised in some IMO treaties relating to ship-source pollution prevention. Among these,

[46] United Nations (UN), 'Means of Settlement', in *Handbook on the Peaceful Settlement of Disputes between States* (United Nations 1992), at p. 24, para.77
[47] Ibid., at p. 40, para.23
[48] UN (n 46), at p. 45-47, para.140, 145
[49] Chayes and Chayes (n 38), 207-209
[50] Chayes and Chayes (n 38) 209
[51] Chayes and Chayes (n 27), at p. 110-111
[52] Catherine Redgwell, Patricia W. Birnie and Alan Boyle, 'State Responsibility, Treaty Compliance and Dispute Settlement' in Alan Boyle and Catherine Redgwell (ed), *Birnie, Boyle & Redgwell's International Law and the Environment* (Oxford University Press 2021), at p. 56

MARPOL[53] and BWM[54] stipulate numerous means for settlement of disputes relating to the interpretation and application of the treaty in accordance with those stipulated in the UN Charter. These include informal negotiation among parties to a dispute and inquiry, mediation, conciliation, and other informal means to solve the dispute upon agreement. However, none of these approaches is mandated or even facilitated by the IMO. Moreover, the lack of an institutional settlement procedure and a time frame for the settlement leaves the parties to the dispute to establish a procedure cooperatively and negotiate upon their technical and financial capacities. The time-consuming process can cause an unexpected administrative burden on states, particularly developing countries, while leaving them struggling with technical incapacity in the negotiation and their implementation of the international standards of concern. Moreover, the solution might not be authoritative as it attributes it only to states involved in the dispute. Independent dispute settlement, without the involvement of institutional mechanisms, might therefore undermine the legitimacy of the international standards subject to the dispute.

Moreover, dispute settlement may not be effective for solving issues concerning the application of treaties due to the bilateral nature of these mechanisms. In other words, the outcome of a settlement of a dispute relating to the application of any treaty would not have a legal effect on other state parties to the treaty, hence failing to promote the uniform implementation of a treaty. Until the present, these informal approaches have not been used.[55]

Similar to MARPOL, UNCLOS, which integrates international shipping standards through rules of reference, also allows state parties to the Convention to settle a dispute through informal means on the application or interpretation of the international shipping standards. By referring to the Charter of the United Nations, which allows their members to settle the dispute by "peaceful means," which include "negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort

[53] The negotiation is an informal means to settle the dispute under MARPOL. See MARPOL, Art.10.
[54] BWM provides numerous dispute settlements in accordance with the UN Charter. See BWM, Art.15.
[55] Jie Huang and Jiaxiang Hu, 'FTA Dispute Resolution to Protect Health and the Marine Environment' in Shahla Ali Luke Nottage, Bruno Jetin and Nobumichi Teramura (ed), New Frontiers in Asia-Pacific International Arbitration and Dispute Resolution (Alphen aan den Rijn, The Netherlands 2020), at p. 328.

to regional agencies or arrangements, or other peaceful means of their own choice,"[56] state parties to UNCLOS can negotiate or conciliate disputes over the application or interpretation of international shipping standards with respect to the prevention of pollution from ships and maritime safety. Although the UNCLOS leaves the conciliation procedure to the conciliators, the so-called conciliation commission allows parties to the dispute to choose conciliators nominated by state parties to the UNCLOS.[57] The neutrality of this third party, which has the "highest reputation for fairness, competence and integrity"[58], may provide, to some extent, trustworthiness for the parties, particularly developing countries, to the dispute that the conciliation would not be taken advantage of by the other party. Otherwise, the other challenges of informal dispute settlement also remain.

It is also worthwhile to note that Article 94(6) of the UNCLOS allows any state that has "clear grounds" that a ship has not been controlled properly by the flag state in the high seas to report the matter to a flag state in order to let the flag state investigate the matter and execute its jurisdiction and control over the ship to relieve the situation. Thus, when any state finds the matter of a ship relating to the application of international shipping standards, such as a substandard ship, the state can raise the issue with the flag state to allow it to investigate and solve the issue before initiating the dispute. However, where the reporting state is dissatisfied with the response, it can also initiate a dispute relating to the application or interpretation of a treaty under Part XV on Settlement of Dispute of UNCLOS with the flag state about the standards applied to the ship.

(b) Formal dispute settlement

The formal means of dispute settlement are arbitration and judicial settlement performed by a third party upon an agreement between the parties to the dispute or independent judges, respectively. The formal dispute settlement is rather a

[56] UNCLOS, Art.279, 280; UN Charter, Art.2, para.3, art.280.
[57] UNCLOS, Art.284, Annex V
[58] UNCLOS, Annex V, Art.2

confrontational means for making other states implement international standards[59] and this feature has certain drawbacks. Particularly when the non-compliance of the international standards is unintentional and rather due to the lack of technical or financial capacities of the state, these are not taken into account in the dispute settlement process, and the solution of the dispute therefore might not be followed in practice. The costs of the dispute settlement might also be overburdensome, with respect to financial expenses and administrative work, for the parties to the dispute, particularly developing countries. [60] Chayes and Chayes observe that formal adjudication has been criticised as "slow, costly, cumbersome, and inflexible".[61] Generally, formal adjudication has rarely been used for the settlement of disputes under environmental treaties.[62] Some authors, such as Goeteyn and Maes[63] observe that the seldom use of dispute settlement reflects that dispute settlement approaches are ineffective for ensuring treaty compliance and cause states to seek other compliance approaches proposed by the managerial school of thought. Furthermore, the bilateral nature of the formal dispute settlement may not incentivise non-disputing states to adhere to the outcome of the dispute.[64]

Despite these disadvantages, formal adjudication has been stipulated as a means for solving interpretation and application issues in MARPOL[65] and BWM[66]. Unlike BWM, which merely refers to formal litigation in general, similar to those provided by the United Nations Charter[67] (UN Charter), MARPOL provides special arbitration as a means to settle a dispute if states fail to settle the dispute through negotiation.[68] This special arbitration procedure facilitates and reassures the parties to the dispute that the arbitration will be participated in by a "qualified" person nominated by

[59] Chayes and Chayes (n 38), at p. 205. See also Nils Goeteyn and Frank Maes, 'Compliance Mechanisms in Multilateral Environmental Agreements: An Effective Way to Improve Compliance?' (2011) 10 Chinese Journal of International Law 791, at p. 823.
[60] For example, MARPOL clearly requires each party to a dispute to be responsible for the costs of the arbitration, including the remuneration for arbitrators, their expenses, and other related costs. MARPOL, Art.VI of Protocol II
[61] Chayes and Chayes (n 38), at p. 205
[62] Chayes and Chayes (n 38), at p. 206
[63] Goeteyn and Maes (n 59), at p. 823
[64] UNEP (n 42), at p. 6
[65] MARPOL, Art.10
[66] BWM, Art.15
[67] UN Charter, Art.33
[68] MARPOL, Art.10

IMO's member states, if the parties fail to choose one as a third arbitrator, in addition to an arbitrator nominated by each party.[69] The treaty also provides an opportunity for a party to the dispute to seek help from the Secretary-General of the IMO in arranging a "qualified" person, approved by the Council, in lieu of its nomination.[70] This opportunity is likely to assure states, particularly developing countries. Although the qualification of this person is not clearly identified in the treaty, the approval by the Council allows the organ to make a decision on this issue. In other words, the treaty allows IMO Member States to participate in decision-making, thus strengthening the legitimacy of the "qualification." Nevertheless, to date, the formal approaches under MARPOL[71] or the BWM have never been invoked. Churchill observes that this might be due to the expensive and time-consuming costs, hence handicapping developing countries.[72]

In addition to the IMO treaties, UNCLOS also provides an alternative means of formal dispute settlement, by referring to those provided by the UN Charter, for state parties to UNCLOS regarding the application or interpretation of international shipping standards that are incorporated into the treaty.[73] States that are not injured by the non-compliance of the Convention can also use dispute settlement procedures under UNCLOS in the application or interpretation of international shipping standards, particularly those that are generally accepted, to fulfil the community interest in marine environmental protection. In line with this interpretation, Redgwell, Birnie, and Boyle observe that any state can enforce environmental obligations; "those environmental obligations which affect the international community as a whole have an erga omnes character".[74] Accordingly, states have options for settling disputes related to the application and interpretation of international shipping standards incorporated into the Convention through the rules of reference. If the parties to the dispute failed to reach a solution through

[69] MARPOL, Protocol II, Art. IV(1)
[70] MARPOL, Protocol II, Art. IV(2)
[71] Huang and Hu (n 55), at p. 328.
[72] Robin Churchill, 'Just a Harmless Fishing Fad-or Does the Use of FADs Contravene International Marine Pollution Law?' (2021) 52 Ocean Development and International Law 169, at p. 191. See also UNEP (n 42), at p. 6-7.
[73] UNCLOS, Art. 279
[74] Redgwell, Birnie and Boyle (n 52), at p. 47

other peaceful means[75], they can settle the dispute through the International Tribunal for the Law of the Sea (ITLOS), the International Court of Justice, an arbitral tribunal, or a special arbitral tribunal.[76] These forums are executed through the so-called "compulsory procedures entailing binding decisions".[77]

The remarkable mechanisms of these compulsory procedures are the opportunity for parties to a dispute to participate in requests for scientific or technical experts in various fields, including the protection and preservation of marine environment, navigation, and pollution from ships[78] and "speedy and interim remedies"[79] for parties to the dispute, including provisional measures and the prompt release of vessels and crews[80]. The ICJ and ITLOS also provide funding for settlement expenses while also allowing the Court and Tribunal to request experts to give opinions in oral proceedings.[81] However, the funding provided by the ICJ is limited to the dispute relating to the interpretation of a treaty.[82]

In addition to the ICJ and ITLOS, special arbitration is also an attractive means for dispute settlement relating to the interpretation or application of provisions of UNCLOS relating to various categories, including the protection and preservation of marine environment, navigation, and prevention of pollution from ships.[83] State parties to a dispute can also choose two arbitrators, nominated from each party to the dispute, who are experts in legal, scientific, or technical matters and also have "the highest reputation for fairness and integrity".[84] These persons are listed by the United Nations in consultation with the related UN specialised agencies, such as the

[75] UNCLOS, Art.281(1)
[76] UNCLOS, Art.287, 288
[77] UNCLOS, Part XV, section 2
[78] UNCLOS, Art.289
[79] Saiful Karim, 'Litigating law of the sea disputes using the UNCLOS dispute settlement system' in Natalie Klein (ed), *Litigating International Law Disputes: Weighing the Options* (Cambridge University Press 2014), at p. 260
[80] UNCLOS, Art.290, 292
[81] ICJ Charter, Art.32(2), 43. See also United Nations General Assembly, *Secretary-General's Trust Fund to Assist States in the Settlement of Disputes through the International Court of Justice* (7 October 1992) (A/47/444), Annex; United Nations General Assembly, *A/57/37 Secretary-General's Trust Fund to Assist States in the Settlement of Disputes through the International Court of Justice*, (2004), para.14; United Nations General Assembly, *A/RES/55/7 Resolution adopted by the General Assembly: 55/7 Oceans and the law of the sea*, (2001), Annex, para.1, 7.
[82] See UNGA (A/57/37) (Ibid.)
[83] UNCLOS, Annex VIII, Art.1
[84] UNCLOS, Annex VIII, Art.2, 3

UNEP and the IMO.[85] Redgwell, Birnie, and Boyle observe that this procedure could ensure that the dispute would be solved by people with appropriate expertise.[86] General arbitration is also another option for settlement of disputes and may be the last resort to solve the dispute if parties to the dispute do not accept the same procedure.[87] Unlike those of special arbitration, persons who are arbitrators may not be scientific or technical experts but rather have experience in "maritime affairs and enjoy the highest reputation for fairness, competence and integrity"[88]. Moreover, parties to the disputes within the special arbitration and general arbitration have to bear all costs of the special arbitration.[89] Churchill observes that the confidentiality of the proceeding and its outcome might be appreciated among states when they want to avoid third-party intervention.[90] On the other hand, it might not ensure the uniform implementation of the international shipping standards; hence, the community's interest in marine environmental protection and preservation might not be met.

Among the formal dispute settlement mechanisms available, the International Tribunal for the Law of the Sea (ITLOS) stands as the preferred means, explicitly endorsed by UNCLOS parties, for resolving disputes concerning the application or interpretation of UNCLOS obligations.[91] Notwithstanding, to date, the general arbitration in the *South China Sea Arbitration*[92] has been chosen as a means to solve the dispute with respect to the application of the "generally accepted" international

[85] Ibid. See also The United Nations, 'Settlement of disputes mechanism: Lists of experts for the purposes of article 2 of Annex VIII (Special Arbitration) to the Convention' <https://www.un.org/depts/los/settlement_of_disputes/experts_special_arb.htm> accessed 11 June 2023

[86] Redgwell, Birnie and Boyle (n 52), at p. 48

[87] UNCLOS, Art.287(5)

[88] UNCLOS, Annex VII, Art.2(1)

[89] UNCLOS, Annex VII, Art.7, Annex VIII, Art.4

[90] Robin Churchill, 'Some Reflections on the Operation of the Dispute Settlement System of the UN Convention on the Law of the Sea During its First Decade' in Richard Barnes and David Ong David Freestone (ed), *The Law of the Sea : Progress and Prospects* (Oxford University Press 2006), at p. 396-397

[91] Only 12 states explicitly declare that they prefer the ITLOS as the means for settlement of disputes under UNCLOS. Among these, three states, including Bangladesh, Nigeria, and Panama, stated that they would use ITLOS only for a specific case. Besides, 21 states explicitly accepted the ITLOS as one of a means to settle a dispute under UNCLOS. It is also worth noting that the information on the explicit acceptance of the dispute settlement procedures is derived from the UN Treaties Series.

[92] South China Sea Arbitration (The Philippines v China) PCA [2016], at para.1081-1082

shipping standards.[93] Notwithstanding, states might avoid using dispute settlement as a means for enforcing international shipping standards if it could not fulfil their national interests. Karim observes that states normally use formal adjudication based on their domestic interests[94] while Huang and Hu also observe that states are generally not directly affected by the non-compliance of international shipping standards, particularly MARPOL.[95] Thus, states might avoid using this means to enforce international standards if it could have an adverse impact on the state.[96]

(2) National mechanisms encouraged by the IMO

(a) Port State Control

The ongoing use of substandard ships at sea reflects the non-uniform implementation of international shipping standards relating to maritime safety and pollution prevention. This problem is not necessarily just a reflection of failed enforcement of flag states, but also reflects that flag states "could not constantly monitor every ship in its fleet wherever it sailed in the world"[97]. On the other hand, it might also reflect that the execution of other enforcement mechanisms might be insufficient to encourage states, especially flag states, to fully implement the IMO treaties. Since this problem poses risks to the marine environment, the international community, through UNCLOS, authorises states to enforce "applicable international rules and standards established through the competent international organization" when (foreign) ships are within their ports or offshore terminals.[98] This reflects the fact that the international community authorises its members to act as agents of the community to enforce the international shipping standards[99], through their port state jurisdiction, over (foreign) ships violating IMO treaties within their jurisdiction (or even on the high

[93] The Philippines claimed that a Chinese enforcement vessel failed to comply with COLREG, which is incorporated into UNCLOS through the rules of references. See UNCLOS, Art.21, 94, Annex VII, Art.3; South China Sea Arbitration (Ibid.), at para. 1059, 1083.
[94] Karim (n 79), at p. 261, 266-269
[95] Huang and Hu (n 55), at p. 329
[96] Huang and Hu (n 55), at p. 329
[97] Oya Ozcayir, 'Impact of Port State Control on Pollution at Sea' in Baris Soyer and Andrew Tettenborn (ed), *Pollution at Sea: Law and Liability* (Informa Law from Routledge 2012)
[98] UNCLOS, Art.218, 219
[99] Yoshifumi Takana, 'Protection of Community Interests in International Law: The Case of the Law of the Sea' (2011) 15 Max Planck Yearbook of United Nations Law Online 329, at p. 362

seas[100]) to protect the interests of the international community by enforcing domestic legislation in compliance with the IMO treaties.

The IMO established the Port State Control (PSC) mechanism as "a second line of defence against substandard shipping"[101] by empowering port states to exercise the PSC to ensure treaty compliance of ships by embedding this mechanism into many treaties, including the major maritime treaties. These treaties include SOLAS[102], MARPOL[103], TONNAGE[104], STCW[105], BWM[106]. The PSC mechanism originally empowered state parties to the treaties to double check the standards of ships while the ships are at a port of the states by inspecting an onboard valid certificate issued by their flag states and the ships, if necessary, to ensure that the ships met the international shipping standards. The PSC is not "punitive"[107] and does not replace the primary responsibility of flag states[108]; rather, it is a compliance mechanism applied by port states to exercise their administrative powers, such as detention of the ships, with the aim of rectifying deficiencies of the ships[109] and a coordination mechanism that could encourage flag states to improve their practices toward international standards. The use of this mechanism shows that the IMO promotes the uniform implementation of treaties by also empowering port states, which have jurisdiction over the ships at their ports[110], to oversee the compliance of the ships

[100] UNCLOS, Art.218(1)

[101] International Maritime Organization (IMO), 'Port State Control' <https://www.imo.org/en/OurWork/IIIS/Pages/Port%20State%20Control.aspx> accessed 10 August 2021

[102] SOLAS, Reg. I/19, IX/6.2, XI-1/4 and XI-2/9

[103] MARPOL, Art. 5 and 6, reg. 11 of Annex I, reg.16.9 of Annex II, reg.9 of Annex III, reg.14 of Annex IV, reg.9 of Annex V and reg.10 of Annex VI

[104] TONNAGE, Art.12

[105] STCW, Art.X

[106] BWM, Art.9

[107] James Harrison, 'Marine Environmental Threats from Shipping', in Saving the Oceans through Law: The International Legal Framework for the Protection of the Marine Environment (First Edition edn.: Oxford University Press, 2017), at p. 154

[108] J. Chris S. Horrocks, 'Thoughts on the Respective Roles of Flag States and Port States' in Myron H. Nordquist and John Norton Moore (ed), Current Maritime Issues and the International Maritime Organization (Martinus Nijhoff Publishers 1999), at p. 195. See also Ozcayir (n 97).

[109] Anderson also observed that the PSC is "the last safety net" when flag states and relevant stakeholders failed to implement international shipping standards while Harrison observed it as a means to remedy deficiencies of ships. See Darryl Anderson, 'The Effect of Port State Control on Substandard Shipping' (2002) Maritime Studies 20, at p. 22. See also Harrison (n 107), at p.3.

[110] The PSC is recognised as the "most significant weapon" of coastal states to handle substandard ships. See Harrison (n 107), at p. 155-156

with the treaties in addition to flag states. Moreover, the PSC also assists flag states in monitoring ships flying their flags by requiring port states to coordinate with flag states of substandard ships, whose deficiencies have to be rectified before sailing from the ports.[111] In cases where the ships do not meet minimum standards, the PSC would also signify, or even identify, the deficiencies in the flag state implementation, meaning that the PSC is also a mechanism to verify flag state implementation and assist flag states in identifying the areas of implementation that need to be improved (if any). In addition to the PSC inspection, the IMO also strengthens the PSC performance by requiring state parties to the treaties to report measures taken to ships flying other flags to the flag states and the Organisation while also allowing other states to access the information through its information system.[112] The opportunities to access the information on ships subject to PSC measures through the institutional information system (GISIS), discussed below, would enable other port states and flag states to monitor the ships carefully and strengthen the enforcement, respectively.

Notwithstanding, the cross-verification of the standards of ships under IMO treaties may ineffectively ensure the uniform implementation of the treaties since substandard ships still proceeded at sea, causing several major maritime incidents such as Torrey Canyon in 1967, Argo Merchant in 1976, and Amoco Cadiz in 1978.[113] These incidents raised a vital concern among many traditional maritime shipping states about the need to strengthen the implementation of international shipping standards to prevent harmful effects from ship-source pollution on their coastal

[111] This requirement has been embedded in many IMO treaties including SOLAS and MARPOL.

[112] SOLAS, Reg.19 of Chapter 1; MARPOL, Art.4(3), reg.11.4 of ANNEX VI. See also International Maritime Organization (IMO), MSC/Circ.1011-MEPC/Circ.383 Measures to Improve Port State Control Procedures, (2001).

[113] Tamo Zwinge, 'Duties of Flag States to Implement and Enforce International Standards and Regulations - And Measures to Counter Their Failure to Do So' (2011) 10 Journal of International Business and Law 297, at p. 312

areas.[114] The inconsistent practice of the PSC among states[115] and the inadequate implementation of IMO treaties by some developing countries, which have incapacities in monitoring ships flying their flags,[116] could contribute to maritime incidents.

The ongoing use of substandard ships, which reflects the need to reinforce the PSC mechanism, led to further development of the PSC mechanism among some European countries. In January 1982, the Paris Memorandum of Understanding on Port State Control (Paris MoU) was adopted among fourteen European countries with the aim of preventing substandard ships through strengthened cooperation in states' practices and the exchange of information.[117] These countries agreed to introduce multiple compliance approaches to the PSC mechanism embedded in the major IMO treaties, as listed in the MoU[118], by establishing the coordination system of the PSC, which could result in uniform practice in the PSC among European states.

The first and foremost approach is the establishment of a coordination system for port state control and a uniform procedure for conducting the PSC at ports by harmonising the PSC procedures among member states[119]. For example, the introduction of sets of quantitative and qualitative criteria[120] for selecting ships

[114] Alan Knight, 'Port State Control: An Important Concept in the Safety of Life at Sea, the Protection of the Marine Environment, and of Goods in Transit' in Paul R. Boudreau Dirk Werle, Mary R. Brooks, Michael J.A. Butler, Anthony Charles, Scott Coffen-Smout, David Griffiths, Ian McAllister, Moira L. McConnell, Ian Porter, Susan J. Rolston and Peter G. Wells (ed), *The Future of Ocean Governance and Capacity Development: Essays in Honor of Elisabeth Mann Borgese* (1918-2002) (Brill Nijhoff 2018), at p. 462-463

[115] Helen Sampson and Michael Bloor, 'When Jack Gets out of the Box: The Problems of Regulating a Global Industry' (2007) 41 Sociology 551, at p. 557

[116] John Hare, 'Port State Control: Strong Medicine to Cure a Sick Industry' (1997) 26 Georgia Journal of International and Comparative Law 571, at p. 576

[117] Until the present, the Paris MoU has been adopted by twenty-seven countries. See the Paris Memorandum of Understanding on Port State Control (Paris MoU) (as amended) at the preamble.

[118] These treaties include SOLA 1974 and SOLAS Protocol 1988, Load Lines 1966 and Load Lines Protocol 1988, MARPOL 1973/1978, STCW 1978, COLREG 1972, TONNAGE 1969, and BWM 2004.

[119] Harrison (n 107), at p. 155-156

[120] These include a certain proportion of ships subjected to inspection at ports and the historical background of each ship with respect to detention frequency. See Paris MOU, section 1.3 and Annex 1 of the Paris MOU.

subject to being inspected at a port of a member state and the qualification of port state control officers.[121]

Secondly, the Paris MoU also requires port states to report the inspection results as part of the compliance procedure. It also promotes information sharing with respect to port state inspections between member states by introducing the Information System[122] (IS) as a mechanism for collecting PSC results[123], exchanging relevant information[124], analysing the risks of ships inspected by port states[125] and providing relevant information to assist states in prioritising ships subjected to being inspected.[126] The information will be analysed for evaluating the treaty performance of flag states[127] which will then be published on the website, allowing relevant stakeholders to access the information. The reporting and information sharing allow member states, particularly port states, to acknowledge the historical background of ships with respect to their standards and treaty compliance. Furthermore, the IS makes the treaty compliance by the individual ships transparent and also disables any arguments on the historical standards of each ship, which may be falsely raised at some ports or even to a flag state expected to register the ship.

The PSC, although focused on the verification of treaty compliance by individual ships rather than states' performance, might also signify the inadequate implementation of international shipping standards. Under the PSC regional regime, the performance of flag states will be categorised into three groups based on risks relating to the general and historical backgrounds[128] of each individual ship that has been inspected in the region.[129] These groups are the "white list," "grey list," and "black list" of flag

[121] The Final Declaration of the Paris MOU observed that this approach could minimise the avoidance of substandard ships. See A.V. Lowe, 'A Move Against Substandard Shipping' (1982) 6 Marine Policy 326, at p. 327
[122] Paris MoU, Section 5.1, Annex 3
[123] Paris MoU, Annex 3, para.3
[124] Ibid.
[125] Paris MoU, Annex 3, para.3
[126] Paris MoU, Annex 3, para.1
[127] Paris MoU, Annex 7
[128] The general background of a ship includes the type and age of the ship and flag state performance, while the historical background refers to the deficiencies and detention records of the ship.
Paris MoU, Section.5.1 and Annex 3, para.3, section 3.2 and Annex 7
[129] Paris MoU, Section 3.2, Annex 7

states that have high, medium, or low risks, respectively.[130] These lists will assist port states in selecting ships to be inspected at ports within different periods.[131]

The publication of flag states' performance is also a significant part of the compliance procedure of the Paris MoU. Although the original focus of the MoU was rather the monitoring standards of individual ships, this method has been introduced to the MoU under the name-and-shame principle to counter flag states with poor performance.[132] The reputation of flag states would be affected by this approach, as their treaty performance would be made available to the public on the Paris MoU website.[133] The revelation of flag state performance could pose a risk of being detained on ships flying flags of the states with poor performance, therefore discouraging stakeholders, including expected new ship owners, shipping agents, charterers, brokers, and insurers, from using the substandard ships,[134] resulting in the change of flag. In other words, it created "market influences"[135] on the compliance of IMO treaties. Therefore, this "name and shame"[136] machinery, resulting from the cooperative and transparent procedure, is used as a means to enforce IMO treaties on individual ships directly and also induce flag states to effectively implement IMO treaties in order to ensure that they can maintain ships flying their flags and also encourage new clients to fly their flags.[137] Evidently, many flag states lost their reputations as a result of the PSC inspections.[138]

It is clear that the Paris MoU uses multiple approaches throughout the compliance procedure to promote the implementation of IMO treaties by individual ships and flag states. This regional mechanism has later been accepted by the international community as a useful means to enforce IMO treaties in addition to flag state control,

[130] Paris MoU, Annex7, para.10
[131] Paris MoU, Section 1.3, 1.6, 3.2, 4, Annex 8, 9, 11
[132] Zwinge (n 113), at p. 312.
[133] Paris MoU, Section 3.2, 5.2, 5.3, Annex 4, 7
[134] Hare (n 116), at p. 580
[135] Helen Sampson, Michael Bloor, Susan Baker, David Walters, Katrin Dahlgren, Emma Wadsworth and Philip James, 'Room for Manoeuvre? Regulatory Compliance in the Global Shipping Industry' (2013) 22 Social & legal studies 171, at p. 186
[136] Ozcayir (n 97)
[137] Elizabeth R. DeSombre, 'Port State Control', in *Flagging Standards: Globalization and Environmental, Saety, and Labor Regulations at Sea* (Massachusetts Institute of Technology 2006), at p. 97-98
[138] Ibid., at p. 98-110

which may have difficulties in effectively implementing IMO treaties[139]. In 1991, the IMO encouraged states in other regions to establish regional frameworks for the PSC following the Paris MoU.[140] Since then, eight regional frameworks for the PSC have also been established throughout the world.[141] The IMO has taken part in all regional MoUs as an observer and supported the training courses provided for port state control officers by each regional MoU[142], showing that the IMO has promoted the implementation of IMO treaties through compliance mechanisms executed by flag states and port states, which are state parties to the treaties, and regional cooperation, though the Organisation itself has no enforcement power.

It is also worth noting that the PSC alone could not effectively promote the implementation as expected by the IMO, since, in fact, substandard ships have still been found at sea, as evidenced by regional MoUs[143]. However, the publication of the White, Grey and Black lists of flag states is naming and shaming the flag states, in addition to the economic consequences of failing to enforce the standards, hence encouraging them to further improve their enforcement toward international standards.

3.3.2 Special mechanisms developed by the IMO

In addition to measures taken by states, the IMO has also established various compliance mechanisms, executed by its institutional bodies and mechanisms, in order to promote better implementation of international shipping standards. These mechanisms include self-reporting, which is legally required by IMO treaties and organised by the IMO; the White List, which combines self-reporting with other institutional mechanisms to promote treaty compliance; and lastly, the audit scheme, an oversight programme conducted by the IMO. The upcoming sections will delve into an exploration and analysis of the functioning of these mechanisms.

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[139] International Maritime Organization (IMO), *Resolution A.682(17) Regional Co-operation in the Control of Ships and Discharges,* (1991)
[140] Ibid.
[141] Ozcayir (n 97)
[142] See IMO's activities to support regional MoUs in Note 101.
[143] In 2020, substandard ships were detected by port states in several region MoUs on PSC such as the Tokyo MoU and the Paris MoU. See the Tokyo MOU Secretariat, *Annual Report on Port State Control in the Asia-Pacific Region*, (2020), at p. 6-15; Paris MOU, *Paris MOU on Port State Control: Annual Report 2020*, (2020), at p. 16-24

(1) Self-reporting

Bearing in mind that transparency is observed by the managerial theory of treaty compliance as a key principle for encouraging state parties to a treaty to implement the treaty[144], reporting on treaty performance, in which the context of this thesis refers to the extent to which a treaty is implemented by state parties, is a mechanism to show that all state parties have also implemented international shipping standards. The reassurance of the treaty implementation, through self-reporting, could thus induce state parties to the treaty to implement the treaty universally.[145] Self-reporting has also been used among many multilateral environmental agreements[146] as a part of "performance review information," which is considered a compliance mechanism, and many human rights treaties [147] as a part of the compliance process to promote the implementation of treaties. The report on the national implementation is therefore observed as a means to allow other state parties to a treaty to acknowledge how the treaty has been implemented by other states.

The IMO also expected that the reports gathered from the state parties could assist the Organisation in evaluating the treaty's performance.[148] This method has been applied and modified by the IMO through the reporting requirements supplemented by the institutional information system. Many IMO shipping regulations require state parties to report their implementation and enforcement to the IMO to share the information with other state parties to treaties. These reporting requirements generally include reporting on how states use their discretion to grant any exemptions or established national standards equivalent to those of international

[144] Chayes and Chayes (n 3), at p. 22-24

[145] See Chayes and Chayes (n 32), at p. 144-150. See also Abram Chayes and Antonia Handler Chayes, 'Reporting and Data Collection', *The New Sovereignty: Compliance with International Regulatory Agreement* (Harvard University Press 1996), at p. 154-157, 154-156

[146] Gregory Lawrence Rose, 'Executive Summary', in *Compliance Mechanisms Under Selected Multilateral Environmental Agreements (United Nations Environment Programme* 2007), at p. 9-10

[147] Cosette D. Creamer and Beth A. Simmons, 'The Proof is in the Process: Self-Reporting Under International Human Rights Treaties' (2020) 114 American Journal of International Law 1, at p. 1-50

[148] International Maritime Organization, *MEPC/Circ.318 Format for A Mandatory Reporting under MARPOL 73/78,* (1996)*,* para.2

standards as allowed by the treaties,[149] treaties to which each state has been a party,[150] what port state control measures have been taken to ships flying other flags,[151] and how state parties (as a port state) enforce the ships for violation of the treaty relating to pollution prevention[152]. States are also required to report their national laws and regulations implementing the treaties.[153] The fragmentation of the treaty implementation provided by the required reports does not, however, present the extent to which the state implemented applicable treaties. Even though the national legislation has been reported to the IMO, it does not demonstrate how and to what extent the state has implemented the treaties. It simply provides references to the legislation rather than an analysis of how it implements the treaty.

In recognition that the reporting requirements have not yet been effectively performed by state parties to the treaties, the IMO published the names of states that have reported as required and those that have failed to report and statistical data on the reporting with the aim of inducing the implementation of the treaties[154], facilitated by the institutional information system for centralising and updating reports and making them available to member states.[155] This mechanism presents the attempt of the IMO to strengthen the promotion of uniform implementation of IMO treaties by developing a reporting system that allows state parties to the treaties to see how a state party has implemented the treaty. The institutional information system of the IMO was originally developed from those established by shipping industries, including banks, classification societies, charterers and marine insurers, and later adopted by maritime states as a mechanism for collecting information

[149] These requirements are found in many treaties, such as SOLAS, Load Line, MARPOL. See SOLAS, Reg.4(b), 5 of Chapter I; Load Lines, Art.6(3), 8(2); MARPOL, Annex I, Reg.3.3, 5.2.
[150] State parties to all treaties are required to submit ratification instruments to the IMO.
[151] See, e.g., Regulation 19(d) of Chapter 1 of SOLAS.
[152] See, e.g., Article 6(4) and 11(1)(f) of MARPOL; regulation 11.4 of Annex VI of MARPOL.
[153] These major treaties include SOLAS, SOLAS Protocol, Load Lines, Load Lines Protocol, TONNAGE, and MARPOL. See SOLAS, Art. 3(b); SOLAS Protocol, Art.3(a); Load Lines, Art.26(1)(b); Load Lines Protocol, Art.3(a); TONNAGE, Art.15(b); MARPOL, Art.11(1)(a).
[154] International Maritime Organization, *FSI 7/5/1 Reporting on Non-compliance with IMO Instruments: Mandatory reports under MARPOL 73/83 for 1997*, (1998), at para.2, 4
[155] See International Maritime Organization, *Resolution A.1029(26) Global Integrated Shipping Information System (GISIS)*, (2010), at preamble. See also International Maritime Organization, *Resolution A.1074(28) Notification and Circulation Through the Global Integrated Shipping Information System (GISIS)*, (2014), at preamble.

about ships.[156] In early 1993, the IMO then established the information system, the so-called "Global Authority for Ship Standards" (GLASS) [157], which was a computerised-database system gathering safety information about ships from relevant stakeholders and making it available to state parties and the public. This system was further developed and replaced by the International Ship Information Database (ISID) as proposed by the United States of America (USA) to assist port states in controlling and monitoring ships.[158] However, this information system was not effective as the information on ships in the shipping market had remained fragmented.[159] Accordingly, the ISID was replaced by a new information system, the so-called "Global Integrated Shipping Information System" (GISIS), in 2005.[160] This system, as illustrated in ***Figure 1***, has been developed based on the transparency principle[161], to provide state parties with access to information relating to the national implementation. Hence, the GISIS could contribute to the "consistent and effective implementation of IMO instruments globally and compliance with their requirements"[162].

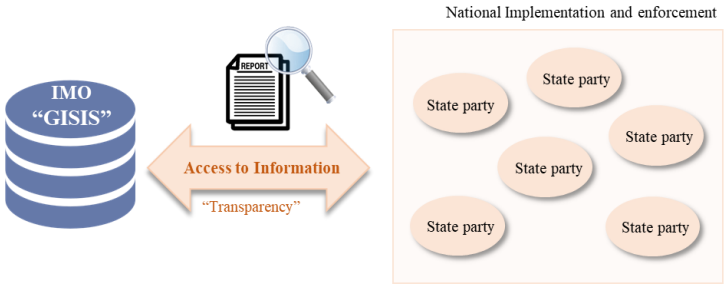

Figure 1

While recognising that the lack of capacity hampered the uniform implementation of treaties, the IMO therefore promoted the self-assessment for identifying the need

[156] Philippe Boisson, 'Classification Societies and Safety at Sea: Back to basics to prepare for the future' (1994) 18 Marine Policy 363, at p. 372-374
[157] Ibid., at p. 374
[158] Boisson (n 156), at p. 375. See also Department of Transportation, *Department of Transportation and Related Agencies Appropriations: Fiscal Year 1996 104th Congress, First session* (U.S. Government Printing Office 1996), at p. 297, 341.
[159] Boisson (n 156), at p. 375
[160] International Maritime Organization, *Circular letter No.2639 Global Integrated Shipping Information System (GISIS) – Manual for Administration on the use of reporting facilities*, (2005)
[161] See Resolution A.944(23), at para.2.9; Resolution A.1074(28) (n 155), at preamble.
[162] See Resolution A.1029(26) (n 155), at preamble, para.2-4; Resolution A.1074(28) (n 155), at preamble.

for assistance by introducing the self-assessment guidelines for flag states in 1997 [163] and later encouraged states to report the self-assessment to the IMO for requesting technical assistance[164] in 2000. Nevertheless, the voluntary report of self-assessment on flag states' implementation of the international standards had not been successful.[165] Since 2007, the IMO has strengthened its attempt to use the reporting mechanism by revealing the statistical data of individual states in a five-year period[166] which was later extended to a six-year period in 2014[167]. It is evident that the reporting mechanism alone is not adequate for ensuring the uniform implementation of international shipping standards, even though the reporting system has been established to facilitate the exchange of information.[168] Even the mandatory reports required by treaties relating to pollution prevention have also been submitted to the IMO annually by a very small number of states. Particularly in the case of MARPOL, until 2019, less than a quarter of state parties, on average, had submitted reports annually on national implementation, which includes the enforcement of national legislation.[169] In addition to the observation of Kasoulides that the low rates of report submissions might partly be due to the absence of national enforcement as required by the treaty[170], the small figures may also be because some flag states have not reported the implementation or not even enforced the laws as required.[171]

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[163] International Maritime Organization, Resolution A.847(20) Guidelines to Assist Flag States in the Implementation of IMO Instruments, (1997)

[164] International Maritime Organization, Resolution A.881(21) Self-Assessment of Flag State Performance, (2000)

[165] Ibid. See also Henning Jessen and Ling Zhu, 'From a Voluntary Self-Assessment to a Mandatory Audit Scheme: Monitoring the Implementation of IMO Instruments' (2016) 3 Lloyd's Maritime and Commercial Law Quarterly 389, at p. 397.

[166] International Maritime Organization, *FSI 15/4 Mandatory Reports under MARPOL 73/78: Analysis and evaluation of the deficiency reports and mandatory reports under MARPOL 73/78 for 2005*, (2007), Annex 1

[167] International Maritime Organization, *III 1/4 Mandatory Reports under MARPOL: Analysis and evaluation of the deficiency reports and mandatory reports under MARPOL 73/78 for 2012,* (2014)

[168] Chayes and Chayes (n 32), at p. 151-152

[169] International Maritime Organization (IMO), *MEPC.1/Circ.891 Summary Reports and Analysis of Mandatory Reports under MARPOL for the Period 2014 to 2019,* (2021), Annex2, p.5

[170] George C. Kasoulides, 'The Port State Enforcement Regime Through International Organizations' in Alfred H.A. Soons (ed), *Implementation of The Law of the Sea Convention Through International Institutions* (The Law of the Sea Institute, University of Hawaii 1989) 440-442

[171] For example, in 2019, only 3 states out of 157 state parties to the MARPOL reported the penalties imposed on ships flying their flags.

It seems that the self-reporting of treaty implementation alone might not be enough to promote treaty implementation. As observed by Chayes and Chayes [172], a mechanism to promote the uniform implementation of treaties should, at least, perform one of several key functions, including the facilitation of coordination among states, the reassurance to states that their implementation would not be taken advantage of by others, or the deterrence of non-compliance. This situation reflects the need to strengthen the reporting mechanism, which does not sufficiently perform these functions, by also employing other mechanisms to fulfil these functions together with the reporting mechanism.

Besides, the self-reports, whether they are mandatory or required by the treaty or not, might not represent accurate facts on the national implementation of the states since they have been made at the discretion of the states themselves.[173] In other words, the implementation of IMO treaties as reported has not been verified to reaffirm the accuracy of the reports. The absence of implementation reports relating to flag state implementation prevents other state parties to the treaty and the IMO from acknowledging the effectiveness of the treaty and making the standards of ships flying the non-reporting flags questionable, even though the ships have been verified by the flag states through the international certificates. For instance, if a non-reporting flag state has not yet enforced national law on a substandard ship making illegal discharge, the ship could pose risks to the marine environment, either that of other states or the high seas, hence requiring the verification of treaty compliance of individual ships from other states, particularly coastal states of which their marine environment is of significant concern. The failure to report national implementation may therefore be suspicious among other states, particularly coastal states. Although the reporting system could put pressure on states, particularly flag-of-convenience states, which significantly concern the attractiveness of the flags for ship registration, this implication needs other mechanisms to validate the reports or use the report as a part of the compliance process.

International Maritime Organization, *MEPC.1/Circ.891 Summary Reports and Analysis of Mandatory Reports under MARPOL for the Period 2014 to 2019,* (2021), Annex, para.2.7

[172] Chayes and Chayes (n 32), at p. 135

[173] Resolution A.1029(26) (n 155), at preamble

Yet, self-reporting has also been used as a mechanism to promote treaty implementation by other international regimes, such as the human rights treaties, which used to have similar challenges to those of the IMO[174]. However, they improved their practices by establishing a sort of compliance process, so-called "the report-and-review process", consisting of multiple mechanisms, including the self-report, which recognised the self-report as the "bare minimum" measure for the implementation of the treaties.[175] In addition to the verification of treaty implementation, this compliance process generally includes elite socialisation, learning and capacity building, domestic mobilisation, and law development.[176] These mechanisms, particularly the elite socialisation and learning and capacity-building, provide opportunities for government officials involved in the implementation and make the report take part in the review process through dialogues with the Compliance Committee which is responsible for assessing the self-report of treaty performance and identifying areas for improvement, while also providing opportunities for states to learn the best practices from other countries.[177] As such, self-reporting along with other compliance mechanisms, can contribute to the uniform implementation of treaties. One sees similar mechanisms evolving in the IMO, as explored in the following sections.

(2) White List

Among treaties relating to maritime safety, the STCW is an eminent one regulating the qualifications of seafarers, with the aim of promoting the safety of life and property at sea and protecting the marine environment.[178] However, this treaty was unsuccessful in achieving uniform implementation, partly due to the lack of mechanisms to enforce the treaty[179] while the increasing competition among open

[174] Creamer and Simmons (n 147), at p. 19
[175] Creamer and Simmons (n 147), at p. 3, 15, 22, 50
[176] Creamer and Simmons (n 147), at p. 22-44
[177] Creamer and Simmons (n 147), at p. 16-18
[178] STCW, Preamble
[179] G. Hans Sperling, 'The New Convention on Standards of Training, Certification, and Watchkeeping: What, If Anything, Does It Mean?' (1998) 22 Tulane Maritime Law Journal 595, at p. 597

registries, so-called flag of convenience (FOC) states, led to the employment of low-paid, substandard seafarers[180].

In response to the need for 'teeth' to enforce the treaty, the IMO introduced the so-called "White List" in 1995 as a compliance mechanism for promoting effective implementation of the STCW, as amended[181]. Under the 1995 Convention, the White List is operated by both state parties and the IMO, working together and using multiple, reinforcing approaches. Firstly, state parties are required to report their implementation process periodically following the amendment of the treaty to confirm that the states have taken the necessary steps, including the promulgation of implementing legislation and taking enforcement measures to ensure treaty compliance and verify the certification procedure. [182] The report of the treaty performance allows the states to conduct self-assessments periodically, identify the deficiencies, and ensure that the certificates given to the seafarers have been issued in accordance with international standards. However, the self-assessment report may be inadequate for ensuring the effective implementation of the treaty, as the self-assessment may not have been executed in compliance with international standards or even have been submitted to the IMO.[183] It was also found that many states failed to submit their self-reports on the national enforcement of MARPOL to the IMO as required.[184]

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[180] Jan Dirks, 'Decision making in the International Maritime Organization' in Bob Reinalda and Bertjan Verbeck (ed), *Decision Making Within International Organisations*, vol 31 (Taylor & Francis Group 2004), at p. 202-203

[181] In 1995, the Conference of the Parties to the SCTW 1978 adopted a resolution to amend the annex to the treaty. The White List mechanism was first introduced to the treaty through Regulation I/7 of Chapter 1 of the Annex. See International Maritime Organization, 'Attachment 1 to the Final Act of the Conference: Resolution 1 Adoption of Amendments to the Annex to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978', *Final Act of the Conference of Parties to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978* (1995). See also International Maritime Organization (IMO), 'International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)' <https://www.imo.org/en/OurWork/HumanElement/Pages/STCW-Conv-LINK.aspx>, accessed 15 July 2021

[182] The STCW requires state parties to conduct the first self-evaluation and report the implementation within one year after the amendment has come into force and also periodically assess the national implementation every five years to confirm their performance of the treaty. See STCW, Reg.7, 8 of Chapter 1.

[183] Chayes and Chayes (n 145), at p. 154-157

[184] Chayes and Chayes (n 145), at p. 154-157

Secondly, the self-evaluation report of treaty compliance will be reviewed periodically by the IMO through a group of experts, so-called "competent persons"[185] including those nominated or suggested by state parties approved by the MSC, to verify that the states have complied with the treaty while also helping the states in the assessment.[186] The verification of the national implementation also means that certificates issued for seafarers by the listed states are also verified by other states, through the MSC, so that the seafarers who hold the certificates are internationally qualified to work on commercial ships wherever the ships are sailing.[187] On the other hand, the MSC will identify deficiencies in the national implementation and provide suggestions for correcting the deficiencies.[188] The review process could reaffirm that the report has been nationally assessed in accordance with the treaty.[189] Sperling observes that this mechanism gives quasi-judicial power to the IMO in overseeing national administration with respect to the implementation of international standards.[190] Moreover, the opportunity given to a state party throughout the review process to clarify their reports to competent persons reflects the attempt of the international community to legitimise the outcome.[191] The execution of the review under the institutional system of the IMO also assures the states that the verification of the reports has been proceeded under the certain rules and procedures established by the IMO, as well as those other reports,[192] making the review outcome legitimate. Therefore, the outcomes of the periodic review and verification, particularly the corrective actions provided by them, could result in the uniform implementation of the treaty from time to time. Notwithstanding, merely the institutional review may not be enough to ensure the uniform implementation of the treaty since this mechanism is not sanctioned but rather provides assistance for the states to identify the deficiencies and improve their implementation.

[185] STCW, Code A, Sec. A-1/7, para.7
[186] Ibid.
[187] STCW, Code A, Sec. A-1/7, para.3.2
[188] STCW, Code A, Sec. A-1/7, para.9.2.2.3, 9.2.2.4
[189] Chayes and Chayes (n 145), at p. 162
[190] Sperling (n 179), at p. 598
[191] STCW, Code A, Sec. A-1/7, para.13
[192] STCW, Code A, Sec. A-1/7

The final step in the compliance procedure is the publication of the "White List," which shows the list of state parties verified to have already implemented the 1995 Convention.[193] The publication of the White List first marks the explicit role of the IMO in the implementation of international shipping standards.[194] By disclosing national implementation and treaty effectiveness, it may encourage uniform implementation by reassuring state parties that the international standards have already been universally practiced.[195] On the other hand, this mechanism might also be an indirect economic measure since it poses a risk of financial loss from the potential delay of substandard ships employing unqualified seafarers from non-listed states in foreign ports.[196] This mechanism might also put pressure on non-listed state parties, particularly labour-supply states, to implement the treaty as their national seafarers who hold the certificates issued by them might not be accepted by other states, resulting in the difficulties of ships employing these seafarers to enter into or leave the port of foreign states.[197]

Evidently, the White List has had a monumental impact on the implementation of STCW by states, which provides labour supply to commercial ships such as the Philippines[198]. The introduction of the White List led to a dramatic improvement in state practice in maritime education standards as required by STCW.[199] It is worthwhile noting that the White List mechanism just verifies, based on evidence provided by the states themselves, that the listed states have taken the necessary steps to implement the treaty as required, reflecting that STCW induces the implementation by ensuring that state parties have taken the necessary steps to implement the treaty.

[193] STCW, Code A, Sec. A-1/7, para.5-9
[194] Gregory R. Trouthwein, '71 Countries Make IMO's Initial STCW White List' (2000) Transas Marine (USA) Inc., at p. 53
[195] See Chayes and Chayes (n 32), at p. 144-151; Chayes and Chayes (n 33), at p. 230.
[196] Sampson and Bloor (n 115), at p. 557
[197] STCW, Art.X(3), Reg. I/4, para.2.1
[198] Sperling (n 179), at p. 607
[199] Sperling (n 179), at p. 607

(3) Audit scheme

The Audit Scheme marks an important development in the oversight of treaty implementation by the IMO. It is the product of a series of steps, and therefore it is important to understand the evolution of the scheme before considering its operation.

In 1992, the IMO established a sub-organ of the MSC and MEPC, so-called "the Sub-Committee on Flag State Implementation" (FSI Sub-committee), to promote universal and effective implementation of IMO treaties[200], which was later renamed in 2013 as the Sub-Committee on Implementation of IMO Instruments (III Sub-committee)[201]. This Sub-Committee developed the Self-Assessment Form (SAF) as a means to assist flag states in identifying their obligations and responsibilities under IMO treaties and evaluating their implementation of the treaties.[202] Nevertheless, the SAF could not significantly attract states to engage in this mechanism due to its voluntary nature.[203] The SAF was therefore inadequate for ensuring the effective and uniform implementation of IMO treaties. The insufficient enforcement of IMO treaties calls for further mechanisms to enforce IMO treaties, as investigated below.

(i) the Voluntary IMO Member State Audit Scheme

While the IMO raised concern about the further development of measures to strengthen flag state implementation[204], major maritime states, including Canada, Finland, Germany, Japan, the Netherlands, Singapore, the USA, and the UK, recognised the ongoing use of substandard ships and inconsistent implementation of IMO treaties as a considerable impediment to the uniform and universal

[200] John N.K. Mansell, 'The Regulatory Regime for Discharge of Flag State Duties: The Role of Classification Societies', in *Flag State Responsibility: Historical Development and Contemporary Issues* (Springer 2009), at p. 135

[201] International Maritime Organization, *MEPC 65/12/3 Restructuring of the Sub-Committees*, (2013), at para.16-17. See also International Maritime Organization, 'Implementation, Control and Coordination' <https://www.imo.org/en/OurWork/MSAS/Pages/ImplementationOfIMOInstruments.aspx>, accessed 28 April 2021

[202] See Resolution A.881(21) (n 164).

[203] Jessen and Zhu (n 165), at p. 407, 408

[204] International Maritime Organization, *Resolution A.914(22) Measures to Further Strengthen Flag State Implementation*, (2002)

implementation of IMO treaties.[205] In 2002, these states proposed an audit scheme[206], based upon the voluntary International Civil Aviation Organization (ICAO) Safety Oversight Programme[207] (ICAO SOP), as a new mechanism to oversee the national implementation of IMO treaties. One year later, the IMO adopted the Voluntary IMO Member State Audit Scheme (VIMSAS)[208] as a new mechanism to oversee national implementation of international shipping standards relating to maritime safety and ship-source pollution prevention.

The IMO uses an inclusive approach through its institutional mechanisms in the development and execution of this audit scheme based on a variety of principles[209], including "sovereignty and universality," "consistency, fairness, objective and timeliness," "transparency and disclosure," "co-operation" and "continual improvement." Among these, the principles of transparency and cooperation are the particular compliance drivers, in line with the observation of a managerial approach outlined above,[210] in the audit process, which could significantly bolster the enforcement of the IMO treaties towards uniform implementation. The first machinery is to provide an institutional helping hand for assessing their national implementation and identify the areas for improving the implementation of major IMO treaties, including SOLAS, Annex I and II of MARPOL, STCW, Load Lines, TONNAGE and COLREG. The three-selected auditors, who must be nominated from different IMO's member states, would take on this role upon agreement with the audited state.[211] Secondly, to encourage Member States to participate in the voluntary scheme, the audit process would be conducted in accordance with the structural audit procedure adopted by the IMO, so-called "the Framework and

[205] These problems were raised in the Council meeting. See, e.g., International Maritime Organization, *C 88/13/2 Consideration of the Strategy and Policy of the Organization, Including the Establishment of an Ad Hoc Council Working Group for the Preparation of the Organization's Strategic Plan*, (2002)
[206] The Council approved the proposals of these states before being endorsed by the Assembly in 2003. See also IMO (C 88/13/2) (Ibid.), at para. 4.
[207] IMO (C 88/13/2) (n 205), at para. 5
[208] International Maritime Organization, *Resolution A.946(23) Voluntary IMO Member State Audit Scheme*, (2004)
[209] International Maritime Organization, Resolution A.974 (24) Framework and Procedures For the Voluntary IMO Member State Audit Scheme, (2005), at para.6
[210] Chayes and Chayes (n 3), at p. 22-28
[211] Resolution A.974(24) (n 209), at para.4.3.1

Procedures for the Voluntary IMO Member State Audit Scheme"[212] (Voluntary Audit Framework). The substantive implementation of the treaties would be overseen following the IMO audit standards, namely "the Code for the Implementation of Mandatory IMO Instruments"[213] (Implementation Code).[214] Similar to the treaty-making process, the IMO provided participatory opportunities for Member States in the development and adoption of the Voluntary Audit Framework and Implementation Code, although these instruments did not have legally binding effect, with the aim of persuading states to volunteer to be audited. This machinery shows that the IMO employed several compliance tools to encourage Member States to participate in the voluntary oversight programme and accept the outcomes of the audits. Particularly, this programme assisted states in improving their implementation of treaties.[215]

As observed by Chayes and Chayes[216] and Franck[217], the interests of states and the legitimacy of rules contribute to treaty compliance. From this perspective, these institutional mechanisms might promote the effective implementation of IMO treaties by strengthening their legitimacy to achieve universal implementation.[218] Participation in the scheme assists states in reviewing their national policy and strategies, which represent national interests, with respect to the implementation of the IMO treaties and ensures that the implementation of the IMO treaties is in the interests of states as illustrated in the national strategies.[219] Furthermore, the Implementation Code also promotes consistent implementation of IMO treaties within the states through national cooperation among relevant national agencies, as illustrated in the national strategies. The "collaborative effort"[220] required during the

[212] Resolution A.974(24) (n 209), at para.4.3.1
[213] International Maritime Organization, Resolution A.973(24) Code for the Implementation of Mandatory IMO Instruments, (2005)
[214] The Implementation Code and Voluntary Audit Framework had been developed by the FSI Sub-Committee and approved by the MSC and the MEPC prior to the final endorsement by the Assembly.
[215] See IMO (Resolution A.973(24)) (n 213), at preamble.
[216] Chayes and Chayes (n 3), at p. 4
[217] Franck (n 10), at p. 706
[218] The auditors could assist states in clarifying international standards, strengthening the "textual determinacy" of the international standards. See Franck (n 10), at p. 712-713.
[219] Implementation Code, para.3
[220] International Maritime Organization, *C 101/6/1 Voluntary IMO Member State Audit Scheme: Further development of the Audit Scheme,* (2008), para.7

audit process would also result in the development of a national cooperative framework to ensure effective implementation of the treaties. The Implementation Code also provides guidelines on how to implement the treaties effectively, which include the transposition of IMO treaties into a national legal framework and legal enforcement.

In addition to the institutional mechanisms, the IMO also employed various approaches during the audit process to promote treaty compliance. Prior to the beginning of the audit, states are allowed to review their implementation of the IMO treaties preliminarily by taking the pre-audit questionnaire.[221] This questionnaire requires more details about the implementation compared to the SAF. The completed questionnaire will then be reported to the IMO.[222] During the audit, states have an opportunity to participate in the audit procedure and are also allowed to clarify their implementation in practice to the auditor team.[223] This interactive process, based on the underlying principle of cooperation[224], could ensure that the information on national implementation has been verified by the states being audited. Upon the completion of the audit, the auditors will evaluate, based on the Implementation Code, the treaty performance of the states and also identify deficiencies in the implementation of the IMO treaties. The states will be given the opportunity to choose the most appropriate ways to improve the implementation of the IMO treaties by making the corrective action plan (CAP) [225] for the implementation. After completion of the audit, states will also be given some time to improve their implementation in accordance with the CAP before being followed up by the IMO[226] to review the implementation of the plan. Lastly, the consolidated audit summary report made by the IMO allows Member States to see the overall treaty performance of the states, although the names of audited states and their audit results

[221] Since the pre-audit questionnaire is a part of the Voluntary Audit Framework, states are able to review their implementation through this form at any time.
[222] Resolution A.974(24) (n 209), at para.5
[223] Resolution A.974(24) (n 209), at para.6.4
[224] Resolution A.974(24) (n 209), at para.6.4
[225] Resolution A.974(24) (n 209), at para.8
[226] Resolution A.974(24) (n 209), at para.9

were not revealed.[227] It also provides lessons learned for other states in the implementation of the treaties. This approach illustrates the attempt to reassure states that the treaties have been widely implemented by state parties[228] by allowing states to access information on the overall national implementation of states.

The audit scheme promotes not only the uniform implementation of the IMO treaties through the "interactive process,"[229] but it is also a quasi-systematic monitoring machine of the IMO, assisting the Organisation in developing appropriate legislation and mechanisms to enforce IMO treaties. Notwithstanding, the VIMSAS was unsuccessful in ensuring all state parties to the IMO treaties would be monitored because it is voluntary. This problem had also been found under the ICAO SOP, which was voluntary and lacking in transparency.[230] The lack of binding character[231], which could undermine the legitimacy of the scheme[232], might also contribute to its ineffectiveness. Unlike the White List, the non-compliance states would not be named.

(ii) the mandatory IMO Member State Audit Scheme

In 2008, the IMO recognised the gradual decrease in the engagement of states in the VIMSAS and realised that making the VIMSAS "an institutionalized and regularized process" could improve the sense of membership among states in the audit process.[233] The proposal to institutionalise the audit scheme into the IMO regulatory framework shows that the IMO realised the importance of legitimising the audit

[227] Resolution A.974(24) (n 209), Appendix 1, para.6-7. See also International Maritime Organization, *A 28/9/1 Voluntary IMO Member State Audit Scheme: Consolidated audit summary report,* (2013).
[228] Chayes and Chayes (n 32) at p. 144-151
Chayes and Chayes (n 32), at p. 142-145
[229] Chayes and Chayes (n 27), at p. 111
[230] The individual audit outcomes were kept confidential. See the discussion in, e.g., Anthony J. Broderick and James Loos, 'Government Aviation Safety Oversight - Trust, but Verify' (2002) 67 Journal of Air Law and Commerce 1035, at p. 1048. See also John Saba, 'Worldwide Safe Flight: Will the International Financial Facility for Aviation Safety Help It Happen' (2003) 68 Journal of Air Law and Commerce 537, at p. 543.
[231] The managerial approach to compliance, proposed by Chayes and Chayes, emphasises that the foundation of the compliance strategy is "the normative framework provided by the treaty". Franck also observed that the "normative hierarchy" of rules could pull the treaty into compliance. See Chayes and Chayes (n 27), at p. 110; Franck (n 10), at p. 752.
[232] Franck (n 10), at p. 712, 751-754
[233] IMO (C 101/6/1) (n 220), at para.21-24. See also International Maritime Organization, *C 114/6 IMO Member State Audit Scheme: Progress report on the implementation of the Scheme*, (2015), para.1.

scheme, by transforming the audit scheme into a binding instrument in order to promote the uniform implementation of IMO treaties. The IMO is also aware that the voluntary character of the VIMSAS is "ad hoc" and "unpredictable" with respect to the participation of state parties in the scheme, impeding the underlying principles of "universality and inclusiveness".[234] The mandatory scheme, in turn, is applied to all state parties to the treaties, which regularises the audit scheme[235].

The IMO acknowledged the achievement of the Universal Safety Oversight Audit Programme (USOAP) of the ICAO[236] which makes the ICAO SOP mandatory for state parties to the ICAO constitution[237] and recognised that the institutionalisation of the ICAO audit scheme within the ICAO framework could promote the implementation of the international standards and assist state parties to identify deficiencies in the implementation of the international air transport standards.[238] Accordingly, in 2009, the IMO formally adopted the proposal to make the VIMSAS mandatory for state parties to the major IMO treaties and scheduled the plan for transitioning towards a mandatory scheme[239] (the so-called "IMO Member States Audit Scheme" (IMSAS))

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[234] International Maritime Organization, *C 102/6/1 Voluntary IMO Member State Audit Scheme: Further development of the Audit Scheme,* (2009), at para.6

[235] The major treaties have been amended to make the audit scheme a part of treaty obligations. Amendments of these treaties are provided in International Maritime Organization, *Resolution A.1083(28) Amendments to the International Convention on Load Lines, 1966,* (2013); International Maritime Organization, *Resolution A.1084(28) Amendments to the International Convention on Tonnage Measurement of Ships, 1969,* (2013); International Maritime Organization, *Resolution A.1085(28) Amendments to the International Convention on the International Regulations for Preventing Collisions at Sea, 1972,* (2013); International Maritime Organization, *Resolution MSC.366(93) Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended,* (2014); International Maritime Organization (IMO), *Resolution MSC.3373(93) Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978',* (2014); International Maritime Organization, *Resolution MEPC.246(66) 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, III, IV and V to make the use of the III Code mandatory),* (2014); International Maritime Organization, *Resolution MEPC.247(66) Amendments to the Annex of the Protocol of 1997 to Amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 Relating Thereto (To make the use of the III Code mandatory),* (2014).

[236] C 102/6/1 (n 234), at para.11

[237] Convention on International Civil Aviation (adopted 7 December 1944, entered into force 4 April 1947) 15 UNTS 295 (Chicago Convention)

[238] IMO (C 101/6/1) (n 220), at para.12-14

[239] See International Maritime Organization, Resolution A.1018(26) Further Development of the Voluntary IMO Member State Audit Scheme (2009), para.1; International Maritime Organization, Resolution A.1068(28) Transition from the Voluntary IMO Member State Audit Scheme to the IMO Member State Audit Scheme (2014), para.1.

to begin in January 2016[240]. The treaties covered by the IMSAS include SOLAS[241], Load Lines[242], Load Lines Protocol 1988[243], TONNAGE[244], COLREG[245], STCW[246], Annex I and II of MARPOL [247] . The transition of the audit scheme involved the further development of the Implementation Code and the Voluntary Audit Framework by making them mandatory in the form of the so-called "IMO Instruments Implementation Code" (III Code) and the "Framework and Procedures for the IMO Member State Audit Scheme" (Audit Framework), which together provide the guidelines for implementing the treaties. [248] This new mandatory monitoring programme significantly contributes to the universal and uniform implementation of the IMO treaties by making the audit scheme normative[249] and strengthening the legitimacy[250] of the compliance procedure. The transition from the voluntary scheme to the mandatory scheme has been made by integrating the IMSAS into each treaty by way of amendment.[251] It is worth noting that only the United States of America (US) has objected to the mandatory audit of its national implementation and enforcement of COLREG since 2015. [252] Moreover, Finland also objected to the mandatory audit of some major treaties in 2015 but later withdrew its objections in

[240] The amendments to the IMO treaties that institutionalise the audit scheme entered into force in January 2016.
[241] Resolution MSC.366(93) (n 235)
[242] Resolution A.1083(28) (n 235)
[243] International Maritime Organization, Resolution MSC.375(93) Amendments to the Protocol of 1988 Relating to the International Convention on Load Lines, 1966, as amended, (2014)
[244] International Maritime Organization, Resolution A.1084 (28) Amendments to the International Convention on Tonnage Measurement of Ships, 1969, (2013)
[245] Resolution A.1085(28) (n 235)
[246] International Maritime Organization, Resolution MSC.374(93) Amendments to the Seafarers' Training , Certification and Watchkeeping (STCW) Code, (2014)
[247] Resolution MEPC.246(66) (n 235)
[248] Resolution A.1018(26) (n 239), at para.4. See also International Maritime Organization, Resolution A.1067(28) Framework and Procedure for the IMO Member State Audit Scheme, (2013); International Maritime Organization, Resolution A.1070(28) IMO Instruments Implementation Code (III Code), (2013).
[249] VCLT, Art.26. Chayes and Chayes observed that the monitoring could promote treaty compliance. See Abram Chayes and Antonia Handler Chayes, 'Norms', *The New Sovereignty: Compliance with International Regulatory Agreement* (Harvard University Press 1996), at p. 112-134.
[250] The regularisation of the audit scheme ensures that it adheres to the treaties, making the scheme legitimate. See Chayes and Chayes (Ibid.), at p. 127-131; Franck (n 10), at p. 752-753.
[251] Abram Chayes and Antonia Handler Chayes, 'Compliance Without Enforcement: State Behavior Under Regulatory Treaties' (1991) Negotiation Journal 311, at p. 323-324
[252] International Maritime Organization, *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 depository or other functions*, (2023)

2017, after most amendments came into force in January 2016 and those of TONNAGE 1969 came into force in February 2017.[253]

While maintaining the underlying principles of the VIMSAS procedure[254], which has been executed through the participatory opportunities of states to interact with the IMO and the audit team[255], the mandatory audit is the first legal mechanism of the IMO established to systematically promote the uniform implementation of the IMO treaties as reflected in the III Code, which is the standard for verifying the implementation of the treaties. The scope of the audit is laid down in the Audit Framework[256], as clarified by the III Code, and includes national policies and strategy for promoting the implementation of the treaties[257], the preparation for implementing the treaties and their amendments[258], implementing legislation and national enforcement[259], national administration[260], qualified personnel[261], the review and monitoring system of the states[262], and the improvement of national practice[263]. The III Code is also the first comprehensive guidelines for states in reviewing their national implementation of major IMO treaties[264] and putting in place a 'national system', which is "a common platform and methodology for assessing and improving their capabilities as well as their overall performance in complying with the provisions of the IMO instruments to which they are party"[265]. The national system is therefore a self-help mechanism for ensuring that the state, as a flag, port, and coastal state, has fully implemented the treaties and would improve their practice

[253] Ibid.
[254] These principles have also been employed by the USOAP. See Resolution A.1067(28) (n 248), at para.6; International Civil Aviation Organization, *A33-WP/47 Report on the ICAO Universal Safety Oversight Audit Programme*, (2001).
[255] Participation throughout the audit process is provided in the Audit Framework. See Resolution A.1067(28) (n 248), Annex, Part II, para.6.3.2, 6.4.2-6.4.4, 6.5.1-6.5.3, 7.2.4, 7.5, 7.7, 8.1
[256] Resolution A.1067(28) (n 248), Annex, Part I, para.7.4.1-7.4.2
[257] Resolution A.1070(28) (n 248), at para.3, 7
[258] Resolution A.1070(28) (n 248), at para.8
[259] Resolution A.1070(28) (n 248), at para.7.3-7.5, 15.1, 22, 46, 49-50, 54.1, 55, 57-62
[260] Resolution A.1070(28) (n 248), at para.7.6-7.9, 15.2, 16, 38-41
[261] Resolution A.1070(28) (n 248), at para.28-37
[262] Resolution A.1070(28) (n 248), at para.42-44, 51, 63
[263] Resolution A.1070(28) (n 248), at para.11-14
[264] Like the VIMSAS process, a state expected to be audited will have to review their national implementation in accordance with the III Code and submit the pre-audit questionnaire (PAQ) to the IMO prior to the beginning of the audit, not less than three months. See Resolution A.1067(28) (n 248), Annex, Part I, para.5.1, 5.3, Appendix 2.
[265] Resolution A.1067(28) (n 248), at the preamble

towards the international standards. Moreover, the communication between states being audited and the auditors during the audit[266], the recommendation, and especially the corrective actions are based upon interactive and constructive processes, reflecting the attempt of the international community to legitimise the audit outcome. As such, the interactive process of the audit, which includes the policy review and verification of treaty compliance, could therefore stimulate states to maintain or improve their practice toward international standards as identified by the audit result.

However, the audit results will be publicised as part of a consolidated report without naming the audited states or any best practices.[267] Similar to that of the VIMSAS, this approach allows states to access information on the overall implementation of states generally, providing, to some extent, reassurance to state parties to the treaties that the treaties have been widely implemented, but without "naming" or making a sense of "shaming" individual countries. Arguably, the preserved confidentiality of individual audit results hampers the effectiveness of the principle of transparency. This quasi-transparent approach may not induce some flag states, particularly open registries, to improve their practices towards international standards since it may not have a considerable adverse impact on their businesses.[268] It may also impede other states, particularly port states, from monitoring ships flying these flags. This issue was also observed as a barrier to promoting uniform implementation of the international standards under the ICAO SOP[269].

Unlike the mechanisms promoting treaty compliance of general environmental regimes[270], the auditors do not even have quasi-judicial power to exercise any

[266] States are able to discuss the audit results with the audits to ensure that the results are mutually agreed upon between the auditors and the state. See Resolution A.1067(28) (n 248), Annex, Part I, para.7.2.4

[267] Resolution A.1067(28) (n 248), Part II, para. 7.3.1, 7.4.3

[268] Open registries, or flags-of-convenience states, generally give priority to providing cheap registrations and services with low shipping standards so as to attract their clients. Hence, mechanisms to promote treaty implementation shall be in the interests of the states, meaning that the mechanisms should have an adverse impact on substandard ships flying their flags. See DeSombre (n 137), at p. 11-15.

[269] Broderick and Loos (n 230), at p. 1047

[270] Generally, environmental regimes establish a mechanism, the so-called Non-compliance procedure (NCP), using an international institution as a compliance body for reviewing and monitoring national implementation of treaties. Most compliance bodies also have technical mandates, while some

measures on states with respect to violations of the treaties and no decisive power, on behalf of the IMO, to provide technical assistance directly to states as appropriate. Instead, the auditors assess the performance of the states and identify the areas of non-compliance[271] which could assist states in making corrective action plans for improving the states' practices and identifying areas that need technical assistance. The audit outcomes are also informative for the IMO in improving the existing Integrated Technical Co-operation Programme (ITCP) to provide technical assistance for states[272], as will be discussed later in the thesis.[273] The opportunity for states to develop their action plan on improving the practice within a proposed period of no longer than three years[274], upon their discretion and capabilities, reflects the fact that the international community avoids coercive actions towards the non-compliant states. Instead, it rather relies on the possibility of achieving uniform implementation of the IMO treaties through a country-led approach, which allows states to take the national context into consideration. Meanwhile, states, particularly developing countries, still have to request and wait for technical assistance from the ITCP[275] while having to improve their practices towards the action plans within the limited period. Notwithstanding, the audit follow-up after a state has been audited within three to four years[276] is the last step for ensuring that the proposed action plan has already been executed. Yet, this final attempt cannot ensure that the audited states will effectively improve their practice toward international standards unless they have the intention and are capable of doing so.

The compulsory audit scheme presents a positive development of the IMO to promote the uniform implementation of IMO treaties, although the scheme is limited to the audit of the major treaties. According to the managerial theory of

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compliance bodies , such as those of the 1997 Kyoto Protocol, even have quasi-judicial power to exercise coercive measures on non-compliance states. See discussion on this issue in Karen N Scott, 'Non-compliance Procedures and Dispute Resolution Mechanisms under International Environmental Agreements' in *Matthew Saul and Nigel D. White Duncan French (ed), International Law and Dispute Settlement : New Problems and Techniques* (Bloomsbury Publishing 2012), at p. 225-258.

[271] IMO (Res.A.1067(28)) (n 248), at Annex, para. 7.4.1 of Part I, para. 7.1.1, 7.2.2, 7.3, 7.4 of Part II

[272] International Maritime Organization, *TC 71/3(a) Integrated Technical Cooperation Programme: (a) Annual Report for 2020* (2020), Annex 1, para.12

[273] See the discussion on the ITCP in Chapter 4, section 4.4.3 below.

[274] Res.A.1067(28) (n 248), Annex, Part I, para. 8, 9.1

[275] Resolution A.1110(30) (n 92), Annex, para.15-16

[276] Res.A.1067(28) (n 248), Annex, para. 9.1 of Part II

compliance[277], the verification of flag state performance through the audit scheme could, to some extent, reassure the international community that the treaties have been implemented by the parties. In addition to overseeing the implementation, including the establishment of a national legal framework for maritime shipping and its enforcement, the audit scheme, through the III Code and the audit process, also promotes uniform implementation, in line with the managerial approach to compliance[278], by assisting the audit states in developing a sort of national system for facilitating domestic coordination for the implementation. Moreover, the audit result also reveals the areas of deficiencies in the implementation of individual states. This latter benefit also assists states in identifying the particular needs of capacity-building. The country-led approach to developing an action plan for improving the state's practice might increase the possibility of achieving uniform implementation of the IMO treaties since it allows the states to take their domestic interests and national context into consideration.

However, the scheme should be further developed toward more transparency. As observed by Chayes and Chayes, transparency is a significant principle for managing compliance[279]. There are some areas where the audit scheme can be improved. Firstly, the audit results of individual states should be revealed to all member states to let them acknowledge the performance of others in practice and reassure them that other parties have also implemented the treaties. Secondly, the flag state performance of individual states in each category of activities to implement treaties, including that of the transposition of international standards into national legal framework and enforcement, should be analysed in comparison with the overall performance of the treaty and made publicly available. For instance, the ICAO's USOAP analyses individual states' performance in implementing specified categorised activities, including their performance in establishing national legislation to implement international standards, and publishes the performance percentage of

[277] Abram Chayes and Antonia Handler Chayes, 'Verification and Monitoring', *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press 1995), at p. 174-189
[278] Chayes and Chayes (n 32), at p. 135-136
[279] Chayes and Chayes (n 32), at p. 135-153

each state to the public.[280] This approach, without "naming," might act as a deterrent for treaty violations since it makes the poor performance states ashamed while their names have not been identified as "bad" states and encourages them to actively improve their practices toward international practices. However, these countries, particularly developing countries, which might have poor performance due to a lack of technical capacity for implementation rather than intentionally violating the obligations, may not be able to improve their practices if they cannot strengthen the capacity for implementation. As such, the IMO should ensure that capacity-building is available for strengthening the capacity appropriately and prioritised for these states. This function of the IMO will be discussed in a later chapter.

3.4 Conclusion

Evidently, IMO treaties offer many mechanisms to promote the uniform implementation of international shipping standards. Multiple approaches, in line with Chayes and Chayes's compliance theory, include dispute settlement, reporting, reviewing, verification, and monitoring. While attempting to manage treaty implementation, the IMO also attempts to strengthen the performance of these mechanisms by strengthening the legitimacy of the international standards along the processes, especially the oversight programme which also closely assists states in clarifying treaty context in practices.[281] To strengthen the performance of these mechanisms, opportunities for accessing information on their implementation have also been provided to states through the reporting system.

Unlike other compliance mechanisms, dispute settlement, whether provided by IMO treaties or UNCLOS (another mechanism supporting the implementation of international shipping standards), may not effectively promote treaty compliance, particularly in disputes concerning the application of a treaty. This is because the outcome of the settlement is only binding on the parties to the dispute. Although

[280] International Civil Aviation Organization, *Safety Report* (2020), at p. 14. See also International Civil Aviation Organization, 'Safety Audit Results: USOAP interactive viewer ', (2021) <https://www.icao.int/safety/Pages/USOAP-Results.aspx> accessed 2 September 2021

[281] These mechanisms help to strengthen the textual determinacy of international standards through the interactive processes between states' administrations and technical experts. See Franck (n 10), at p. 713.

self-reporting is less likely to promote the uniform implementation of IMO treaties because of the lack of verification, the information system established by the IMO could facilitate information relating to the treaty implementation for all Member States. In other words, it allows Member States to acknowledge certain parts of the implementation of some treaties.

However, to some extent, the ineffectiveness of self-reporting has been solved through the audit scheme. It is obvious that the audit scheme is a compliance process designed to bring attention to and promote understanding among states, particularly government officials, involved in the implementation of the IMO treaties. The managerial strategies, including the policy review, the verification of treaty compliance, and the identification of areas for improvement under this oversight programme, could induce the implementation of the treaties. However, this compliance process can be further improved to enhance the effectiveness of the audit scheme by publishing the audit results of individual states to reassure state parties that the treaties have also been implemented by other state parties. Moreover, the scheme should also be expanded to other IMO treaties in order to promote compliance with those treaties.

Notwithstanding, these compliance mechanisms might still encounter challenges in promoting the uniform implementation of treaties when the non-uniform implementation is caused by the lack of capacity of states, particularly developing countries, for the implementation. Chayes and Chayes[282] observe that this latter challenge could be alleviated through capacity-building, to which we now direct our attention for discussion in the subsequent chapter.

[282] Chayes and Chayes (n 3), at p. 13, 14, 25

Chapter 4 International mechanisms for capacity-building

4.1 Introduction

To date, the lack of capacity of states has remained a significant barrier to the uniform implementation of international shipping standards, as revealed in the investigation of the challenges of states as explored in the previous chapters. Although other compliance management mechanisms used in the compliance processes, including dispute settlement, reporting, monitoring, and even port state control, have been used to identify the problems in the implementation and induce states to correct the problems, they are not able to deal with the capacity challenges of states.

The poor capacity of states to implement and enforce international legal frameworks, including those relating to pollution prevention and maritime safety, has long been recognised by the international community through multiple international forums, including those involved in the development of UNCLOS and IMO treaties. Thus, multiple mechanisms have been provided by UNCLOS, IMO treaties, and the IMO to assist states in improving their capacities for implementation. This chapter will therefore explore capacity-building mechanisms under the international legal framework for maritime shipping, including potential challenges for capacity-building and suggestions for the IMO to improve capacity-building and those for states to strengthen their capacities. Before doing so, the chapter will review the relevant academic literature relating to capacity-building as a compliance management mechanism. In this context, the term "capacity-building" refers to any means and mechanisms to strengthen the non-financial capacity of states, particularly that of competent agencies involved in the legal drafting and enforcement of national legislation, which is necessary for the implementation of international shipping standards in a broad sense.[1]

[1] The concept of "capacity-building" has been viewed variously among scholars in different contexts and may also be interpreted interchangeably with the term "capacity development". See, e.g., Harriet Harden-Davies, Diva J. Amon, Marjo Vierros, Nicholas J. Bax, Quentin Hanich, Jeremy M. Hills, Maila Guilhon, Kirsty A. McQuaid, Essam Mohammed, Angelique Pouponneau, Katherine L. Seto, Kerry Sink, Sheena Talma and Lucy Woodall, 'Capacity Development in the Ocean Decade and beyond: Key questions about meanings, motivations, pathways, and measurements' (2022) 12 Earth System Governance 1, at p. 2-3.

4.2 Capacity-building as a compliance management mechanism

The theoretical concept of compliance management employs a managerial approach to promote the compliance of treaties through multiple proactive compliance mechanisms, as explored in previous chapters, instead of using an adversarial approach through sanctioning, which is rather responsive. [2] However, these mechanisms might not be effective unless states, which have primary responsibilities to perform treaties, have sufficient capacities, particularly technical capacities, including knowledge and understanding of the obligations and highly technical shipping standards and expertise in the legal drafting and enforcement of the national legal framework. Capacity-building is therefore a key mechanism to fulfil this gap. As observed by Chayes and Chayes, capacity-building is an "active management" mechanism to promote treaty compliance.[3] This mechanism could significantly help states, especially developing countries, which usually have insufficient capabilities, to be able to transpose international shipping standards into the domestic legal framework and enforce them effectively. This mechanism has also been commonly provided by many environmental regimes to promote treaty implementation.[4]

However, the concept of "capacity-building" has been viewed among scholars and perceived by international organisations differently. Honadle views capacity-building as a process-management mechanism for states in dealing with particular issues, such as financial or organisational management.[5] The United Nations Development Programme (UNDP) conceptualised this term as "the process through which individuals, organisations, and societies obtain, strengthen, and maintain the capabilities to set and achieve their own development objectives over time." [6]

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[2] Abram Chayes and Antonia Handler Chayes, 'Toward a Strategy for Managing Compliance', The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1995), at p. 109-111

[3] The capacity building is observed as a useful tool to bring compliance with "complex and difficult" international regulations. See Abram Chayes and Antonia Handler Chayes, 'Instruments of Active Management', The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1995), at p. 197-200

[4] Ibid., at p. 198

[5] Beth Walter Honadle, 'A Capacity-Building Framework: A Search for Concept and Purpose' (1981) 41 Public Administration Review 575, at p. 575-578

[6] United Nations Development Programme, 'Frequently Asked Questions: The UNDP Approach to Supporting Capacity Development' (UNDP, 2009) <http://content-ext.undp.org/aplaws_assets/2072460/2072460.pdf> accessed 7 April 2023

Harden-Davies and co-authors perceive capacity-building as a mechanism, established with particular objectives, for improving community and organisational capacities.[7] So, the term "capacity-building" has been variously interpreted in different contexts and goals.

In view of environmental protection, capacity-building has been clarified in Agenda 21[8] to include the human, scientific, technological, organisational, institutional, and resource capabilities of states. Although technical assistance might not always be recognised as capacity-building[9], the term has generally been used among international organisations as a means of capacity-building. For example, the World Bank provides technical assistance to states to strengthen their institutional capacities in implementing UNCLOS, which include policies, legislation, enforcement, and training.[10] In addition to technical assistance, technological development and transfer have also been recognised as part of capacity-building.[11]

The specialised agencies under the United Nations (UN) have also recognised the significance of capacity-building, which includes technical assistance and the arrangement of some sort of assistance to states with the aim of improving their capacities in implementing international treaties relating to environmental protection. Generally, the capacity-building tools provided by the UN to states for the implementation of UNCLOS mostly focus on human resource development through multiple forms such as workshops, practical training, including skill

[7] Margaret Harris & Patricia Young Ben Cairns 'Building the Capacity of the Voluntary Nonprofit Sector: Challenges of Theory and Practice' (2007) 28 International Journal of Public Administration 869, at p. 872-874. See also Harden-Davies and others (n 1), at p. 2

[8] United Nations, *A/CONF.151/26/Rev.I (Vol. I) Report of the United Nations Conference on Environment and Development* (1993), Annex II (Agenda 21), at para.37.1

[9] John F.E. Ohiorhenuan and Stephen M. Wunker, 'Capacity Building, Institutional Development and Technical Assistance (CART)', in *Capacity Building Requirements for Global Environmental Protection* (Global Environmental Facility 1995), at p. 4

[10] David Freestone, 'Capacity Building and the Implementation of the Law of the Sea Convention: A View from the World Bank' in Ronán Long Myron Nordquist, Tomas Heidar, and John Norton Moore (ed), *Law, Science and Ocean Management*, vol 11 (Brill Nijhoff 2007), at p. 325

[11] Jenny Harrow, 'Capacity Building' As A Public Management Goal - Myth, magic or the main chance?' (2001) 3 Public Management Review 209, at p. 210 -211

development, research and education, institutional building, funding, and developing good practices.[12]

However, capacity-building could only promote treaty compliance provided that the implementation areas and dimensions of capacity needed to be improved are identified. Ohiorhenuan and Wunker[13] propose the so-called "Capacity Building Requirements Table (CART)" which is an "operational tool" for executing the capacity-building programmes of international organisations. To operationalise the objectives of the capacity-building or technical assistance programme, the CART suggests that the multi-dimensions of capacity for the implementation of treaties, including human resources, organisational processes, financial resources, and external support, should also be considered. This tool would help international organisations identify the areas of each individual state's capacity that need to be strengthened while also assisting them to further develop capacity-building mechanisms more efficiently. Hence, the CART should be established and executed in consultation with the state.

In addition to an operational tool for capacity-building, Kaplan[14] also suggests that organisational capacity at the national level should also be concerned and developed progressively in order to perform any tasks necessary for implementation. Kaplan observes that there are key factors that could contribute to organisational capacity. These include a conceptual framework for organisational capacity, organisational attitude, vision and strategy, organisational structure, acquisition of skills, and material resources.[15] Some of them are addressed by the CART. The execution of these key factors could assist national agencies involved in the implementation of

[12] Vladimir Golitsyn, 'Capacity Building: A View from the United Nations' in Ronán Long Myron Nordquist, Tomas Heidar, and John Norton Moore (ed), *Law, Science and Ocean Management*, vol 11 (Brill Nijhoff 2007), at p. 381-401. See also Kristina M. Gjerde, Nichola A. Clark, Clément Chazot, Klaudija Cremers, Harriet Harden-Davies, Daniel Kachelriess, Cymie R. Payne, Mariamalia Rodriguez-Chaves, Aurélie Spadone, Torsten Thiele, Marjo Vierros, Gabriele Goettsche-Wanli and Glen Wright, 'Getting beyond yes: fast-tracking implementation of the United Nations agreement for marine biodiversity beyond national jurisdiction' (2022) 1 njp Ocean Sustainability 1, at p. 4

[13] Ohiorhenuan and Wunker (n 9), at p. 15-17

[14] Allan Kaplan, 'Capacity Building: Shifting the Paradigms of Practice' (2000) 10 Taylor & Francis 517, at p. 518-523

[15] Ibid.

international treaties in establishing a sort of system for facilitating the implementation.

4.3 Capacity-building mechanisms under UNCLOS

Since UNCLOS has embedded international shipping standards developed under the auspices of the IMO before and after the treaty has been established through rules of reference while recognising the lack of capacities of some state parties, especially developing states, the treaty has many provisions aiming to provide some sort of assistance to states in implementing international shipping standards, particularly those in Part XII on the protection and preservation of the marine environment and those in Part XIV on the development and transfer of technology.

Capacity-building, especially technical assistance, for developing countries has been recognised since the very beginning of the development of environmental law and was also raised by several states during the development of UNCLOS. [16] The arrangement of technical assistance to developing countries is expressed in many provisions of UNCLOS. Among those, articles 202 and 203 in Part XII are of particular relevance to the capacity-building of developing countries for their commitment to international shipping standards relating to pollution prevention. Harrison observed that technical assistance is "implicit" in the principle of common but differentiated responsibilities (CBDR), which has been applied in international environmental law[17], meaning that, under UNCLOS, developed countries have more responsibility to provide the assistance than developing countries, which are the beneficiaries. In other words, the capacity-building obligations of states, which have sufficient capacities to implement the provisions relating to environmental protection and provide some sort of assistance to less developed countries, reflect the different responsibilities with respect to compliance management among developed and less developed countries.

[16] James Harrison, 'Section 3 Technical assistance: Article 202 Scientific and technical assistance to developing States' in Alexander Proelss (ed), *United Nations Convention on the Law of the Sea: A Commentary* (Verlag C. H. Beck oHG 2017), at p. 1348
[17] Ibid., at p. 1347

Article 202(a) of UNCLOS clearly requires state parties to the treaty to "promote programmes of scientific, educational, technical, and other assistance to developing states for the protection and preservation of the marine environment and the prevention, reduction, and control of marine pollution. …". This provision also reflects that the capacity of developing countries to implement international shipping standards relating to the protection of the marine environment is also prioritised by the international community. To perform this obligation, states can either act by themselves or through competent international organisations.[18] The organisations under this provision are mostly the UN, such as the United Nations Environment Programme (UNEP) and the UNDP, as well as specialised agencies such as the IMO[19] or other financial institutions.[20] By encouraging states to perform these obligations through international competent organisations, developing countries are able to participate and directly express their needs in the decision-making process in the development of the relevant capacity-building framework, thereby increasing the legitimacy and efficiency of the capacity-building framework. As such, this given opportunity can significantly enhance the possibility of achieving uniform implementation.

Technical assistance under Article 202 of UNCLOS can be provided in many forms, such as through the training of scientific and technical personnel, facilitating their participation in relevant international programmes, and giving advice, and developing facilities for human resource development.[21] As such, the focus of assistance is the strengthening of the capacity of the states' personnel involved in the implementation. Harrison also observed that the training of this personnel is aimed at strengthening the skills of the nationals of each state in order to help them

[18] George K. Walker, Definitions of the law of the sea : terms not defined by the 1982 Convention (Nijhoff Publishers 2012), at p. 165-167

[19] See United Nations, *Law of the Sea: Bulletin No.31*, (1996), at p. 79, 90-91; University of Virginia Center for Oceans Law and Policy, 'Part XII Protection and Preservation of the Marine Environment' in University of Virginia Center for Oceans Law and Policy (ed), *United Nations Convention on the Law of the Sea* (Brill Nijhoff, Consulted Online on 21 March 2023), at para.202(a). The IMO also recognised this obligation as a part of its work. See International Maritime Organization, *LEG/MISC.8 Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization*, (2014), at p. 8, 119.

[20] Harrison (n 16), at p. 1349

[21] UNCLOS, Art.202(a)(i), (ii), (v)

establish their own capacity-building programmes and lessen the reliance on external assistance[22]. The contribution of training, as observed, depends on the organisational management of states to support human resource development.

Article 203 of UNCLOS even underlines that the allocation of technical assistance, in particular forms of funding and technical assistance, under Article 202 given by "international organisations," shall be prioritised to developing countries for "the purposes of prevention, reduction, and control of pollution of the marine environment or minimization of its effects." Although the treaty does not clarify the term "international organisations," the IMO's member states have recognised, through the studies adopted by the LEG, that the Organisation has provided technical assistance in line with this provision.[23] Harrison observed that in this context, this term indeed refers to the competence of international organisations under Article 202, which have competency in the prevention, reduction, and control of pollution, and noted that the purpose of technical assistance given in Article 203 should be interpreted in light of the general definitions found in Articles 1 and 194 of UNCLOS.[24]

Recently, some scholars, such as Kerr[25], have observed Article 203 as a legal obligation by referring to the concept of an objective regime. This particular concept, although it has not yet been concluded concretely and explicitly accepted in the law of treaties[26], was initially conceptualised by the ILC as a regime creating "obligations and rights valid erga omnes".[27] Wolfrum, Simma and Salerno observe that treaties, especially those relating to environmental protection, can also establish an objective regime when they serve the interests of the international community and have also

[22] Harrison (n 16), at p. 1350

[23] See International Maritime Organization, *LEG/MISC.7 Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization*, (2012), at p. 15-16. See also IMO (LEG/MISC.8) (n 19), at p. 119-120

[24] Harrison (n 16), at p. 1354-1355

[25] Baine P. Kerr, 'Binding the International Maritime Organization to the United Nations Convention on the Law of the Sea' (2022) 19 International Organizations Law Review 391, at p. 391, 408-413

[26] The ILC rejected the concept of objective regime when drafting the VCLT; instead the VCLT, in Articles 34-37, confirms the pacta tertiis principle, which reiterates the legal obligations of a treaty on non-parties only when those expressly accepted the obligations and accepted the validity of erga omnes of the treaty if it becomes customary international law in practice in Article 38. See Bruno Simma, 'the Antarctic Treaty as a Treaty Providing for an "Objective Regime"' (1986) 19 Cornell International Law Journal 189, at p. 196.

[27] United Nations, Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries 2001, (2008), at, p. 231

been generally accepted in practice unless they are expressly objected to by any state that is not legally bound by the regime.[28] Kerr[29] observes that Article 203 is considered an "erga omnes" regime (or so-called "objective regime") that imposes legal obligations on non-parties to the treaty for providing technical assistance to developing countries; hence, it may also have legal consequences for international organisations, even though they are non-parties to UNCLOS themselves. This means that the international organisations, particularly those having competency in relevant matters, such as the IMO, may be obligated under these provisions, whether all member states of the international organisations are parties to UNCLOS. Kerr also observes that state parties to UNCLOS "invested international institution with public authority, in other words, the capacity to make decisions autonomously in the common interests of their member states."[30]

However, this interpretation of Article 203 is controversial. Although the IMO Assembly recognised some parts of UNCLOS as establishing customary international law[31], it is unlikely that Article 203 has such a legal effect since it rather gives a particular direction for states to prioritise the allocation of certain forms of assistance as specified in Article 202 to the particular countries in need of technical assistance. Harrison observes that this article is "a statement of policy," which must be read with Article 202, rather than an obligation since the majority of international organisations are not bound by this provision.[32] Thus, international organisations under Article 203 refer to the competence of international organisations through which their member states are obligated to provide certain forms of assistance under

[28] Rayfuse also observes that the establishment of an objective regime also requires evidence of non-objection. See Rosemary Rayfuse, 'The United Nations Agreement on Straddling and Highly Migratory Fish Stocks as an Objective Regime: A Case of Wishful Thinking?' (1999) 20 An Australian Year Book of International Law 253, at p. 268. See also Rüdiger Wolfrum, 'Solidarity and Community Interests: Driving Forces For the Interpretation and Development of International Law', in *The Pocket Books of The Hague Academy of International Law*, vol 416 (Brill Nijhoff 2021), at p. 60-72, 101; Simma (n 26), at p. 198-202; Francesco Salerno, 'Treaties Establishing Objective Regimes' in Enzo Cannozzaro (ed), *The Law of Treaties Beyond the Vienna Convention* (Oxford University Press 2011), at p. 222, 231-232, 242.

[29] Kerr (n 25), at p. 410

[30] Kerr (n 25), at p. 410

[31] International Maritime Organization, Resolution A.720(17) Guidelines for the Designation of Special Areas and the Identification of Special Areas and the Identification of Particularly Sensitive Sea Areas, (1991), at p. 9

[32] Harrison (n 16), at p. 1354

Article 202.[33] Similar to Harrison, the legal scholars from the University of Virginia also observe that Article 203 is only a guidelines for international organisations and their member states indirectly.[34]

In addition to the question of what capacity-building mechanisms are provided under UNCLOS, identifying the beneficiaries of the capacity-building is another significant question for promoting the implementation of this provision. Though the term "developing countries," which has commonly been used among treaties in general without "once-for-all clarification"[35], is not defined by UNCLOS, this term has mostly been used among capacity-builders to refer to countries having insufficient capacities to perform treaties due to their economic-related factors. Although Walker observes that the term used in UNCLOS might generally refer to those of which their economies can "only support low standards of living and are in the early stages of development"[36], it is likely that the term has been interpreted upon certain criteria given under the specific context. For example, the World Bank classifies the economic development of states based on gross national income (GNI) per capita, which is considered "a useful and easily available indicator that is closely correlated with other, non-monetary measures of the quality of life, such as life expectancy at birth, mortality rates of children, and enrolment rates in school".[37] This term has also been interpreted differently under the international agreements concluded under the World Trade Organization; however, in practice, the term has been applied under "the self-selection principle", which allows states to nominate themselves on an ad hoc basis.[38] The United Nations Conference on Trade and Development (UNCTAD) even highlights that the special group, categorised as "Least Developed Countries" (LDCs) based upon certain criteria including GNI, human assets, and economic and environmental vulnerability, is entitled to "preferential market access, aid, special

[33] Harrison (n 16), at p. 1354
[34] University of Virginia Center for Oceans Law and Policy (n 19), at para.202(a)
[35] Walker (n 18), at p. 165-166, 169. See also A.A. Fatouros, 'Developing States', in *Encyclopedia of Public International Law*, vol Instalment 9 (Elsevia Science Publisher B.V. 1986), at p. 71-77.
[36] Walker (n 18), at p. 165
[37] The World Bank, 'Why use GNI per capita to classify economies into income groupings?' (World Bank, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> accessed 11 May 2023
[38] Moshe Hirsch, 'Developing Countries', (2017) Max Planck Encyclopedias of International Law [MPIL]

technical assistance, and capacity-building on technology, among other concessions"[39] since they are considered "highly disadvantaged in their development process, for structural, historical, and also geographical reasons". [40] Harrison observed that the term "developing countries" in the context of technical assistance should be read in light of the practices of the United Nations[41] and this term should be interpreted as an objective standard judged against specific criteria given by the states through the international organisations, particularly the IMO. Among the spectrum of "developing countries" categorised differently among international organisations, the least developed countries (LDCs) and Small Island Developing countries (SIDs) are commonly given technical assistance by international organisations.[42]

In addition to the technical capacity, the significance of marine technological capacity is also recognised by UNCLOS. Part XIV of UNCLOS generally requires states to promote the development and transfer of marine technology. In this context, the term "marine technology" is referred to by the Secretariat at the Third Conference on the Law of the Sea as "knowledge and hardware" necessary for the uses of oceans, which include "technical information, designs, knowhow, engineering, hardware, processing technology, and management[…], the equipment and technical knowhow employed in the traditional marine industries such as naval architecture and shipbuilding."[43] Article 268 of UNCLOS lays down the general policies for promoting marine technological capacity by allowing states to execute them through competent international organisations. Some policies, such as the development of marine technology and related technical infrastructure and the sharing of information on marine technical knowledge, might be provided in order to assist shipping industries,

[39] The United Nations Conference on Trade and Development (UNDP), 'UN list of least developed countries' <https://unctad.org/topic/least-developed-countries/list> accessed 11 May 2023

[40] The United Nations Conference on Trade and Development (UNDP), 'UN recognition of the least developed countries' <https://unctad.org/topic/least-developed-countries/recognition>, accessed 11 May 2023

[41] Harrison (n 16), at p. 1350. See also University of Virginia Center for Oceans Law and Policy, 'Part XIV Development and Transfer of Marine Technology' in University of Virginia Center for Oceans Law and Policy (ed), *United Nations Convention on the Law of the Sea* (Brill Nijhoff Consulted Online on 21 March 2023), at p. 678, 687.

[42] Harrison (n 16), at p. 1354

[43] University of Virginia Center for Oceans Law and Policy (n 41), at p. 678.

which are subject to international standards, in developing countries to strengthen their capacities to comply with international standards.[44] The transfer of knowledge in marine technology also includes the development of human resources through training and education of nationals of developing states, which might be provided for both shipping industries and government officials involved in the legal drafting and enforcement of the national legal framework.[45] This latter policy could promote the effective enforcement of international shipping standards by strengthening the capacity of regulators such as surveyors and inspectors to have sufficient technological knowledge for detecting non-compliance of ships with highly technological standards.

4.4 Capacity-building mechanisms provided by the IMO and its conventions

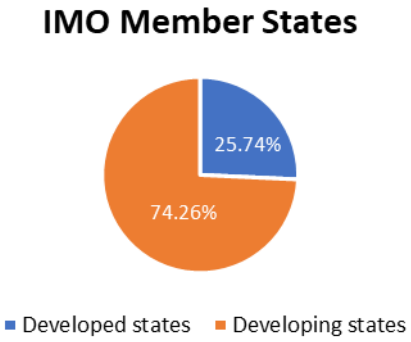
The IMO Member States also recognise that the insufficient capacity of many countries, especially developing countries, could hamper the uniform implementation of international shipping standards; hence, the IMO should provide some sort of capacity-building to those having insufficient capacities for the implementation. In line with the capacity-building policies and obligations under UNCLOS and the compliance theoretical approach,[46] technical assistance has been provided by the IMO and IMO treaties relating to pollution prevention and maritime safety.

4.4.1 The IMO institutional bodies for facilitating the capacity-building

When the IMO Convention came into force in 1958, over forty percent of the IMO's member states were developing countries.[47] Later, when the national fleets' size had shifted from traditional maritime states to developing countries[48], the IMO officially

[44] UNCLOS, Art.268(a),(b),(c). The term "developing countries" should be interpreted in line with the general practice of the United Nations. See University of Virginia Center for Oceans Law and Policy (n 41), at p. 687.
[45] UNCLOS, Art.268(d). University of Virginia Center for Oceans Law and Policy (n 41), at p. 688.
[46] Abram Chayes and Antonia Handler Chayes, 'A Theory of Compliance', The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1996), at p. 22, 25. See also Abram Chayes and Antonia Handler Chayes, 'Instruments of Active Management', The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1995), at p. 197-200.
[47] The classification of "developing countries" here is determined in line with the classification of the United Nations. See, e.g., The United Nations, *World Economic Situation and Prospects* (2022), at p. 151-158.
[48] C.P. Srivastava, 'IMCO's Adapting Structures to Meet Present-Day Requirements' (1976), 13 UN Chronicle 46, at p. 48-49.

recognised the increasing difficulties and needs of technical advice and assistance in the prevention of marine pollution and realised the need to improve the organisational structure of the Organisation in response to the increasing needs of these new members.[49]



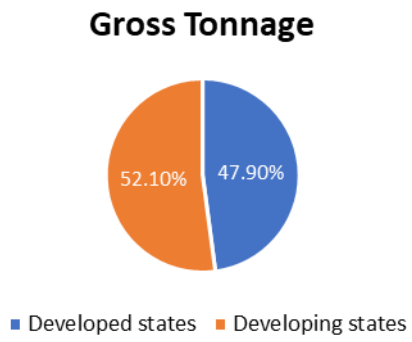


Figure 2 IMO Member States ***Figure 3 Shipping Carriage Capacities***

As illustrated in ***Figures 2 and 3***, by 1977, almost seventy-five percent of member states were developing countries, with their ships carrying space more than half of the world's gross tonnage[50]. In this year, the IMO established a new function to facilitate cooperation for technical matters relating to maritime safety and ship-source pollution prevention and control and institutionalised a new body called the Technical Co-operation Committee as an organ of the Organisation to facilitate the arrangement of technical assistance.[51] The introduction of this body was also the first establishment of an institutional body dealing with technical assistance under any international organisation within the United Nations system.[52] Similar to the procedural standards of IMO technical bodies, all member states, including developing countries, are able to participate in the meetings of this Committee, and their decisions are made by a majority vote.[53] However, unlike institutional bodies

[49] See International Maritime Organization, *Resolution A.349(IX) Technical Assistance in the Field of Marine Pollution* (1975); International Maritime Organization, *Resolution A.360(IX) Institutionalization of the Committee on Technical Cooperation* (1975).
[50] The United Nations Conference on Trade and Development (UNCTAD), *Review of maritime transport, 1977* (1979), at Annex III. See also International Maritime Organisation, 'Member States' (2023) <https://www.imo.org/en/OurWork/ERO/Pages/MemberStates.aspx> accessed 13 May 2023
[51] Intergovernmental Maritime Consultative Organization, Resolution A.400(X) Amendments to the Convention on the Inter-Governmental Maritime Consultative Organization), at p. 7-8.
[52] International Maritime Organization, *Resolution A.873 (20) Technical Co-operation as a Means of Promoting the Acceptance and Implementation of IMO Instruments*, (1997), at preamble.
[53] IMO Convention, Art.42, 62

established by general environmental agreements for promoting the uniform implementation of the agreements, this Committee does not have authoritative power to evaluate treaty compliance and identify the individual needs of Member States in technical assistance.[54] However, this does not prevent the IMO from assisting states to identify their needs. The needs of developing countries will be identified by the audit as investigated previously[55] and the suggestions from the Sub-Committee on Implementation of IMO Instruments (III Sub-Committee), which will be examined and analysed below. To date, the IMO has prioritised technical assistance for the implementation of IMO treaties as a significant mechanism for assisting developing countries in ensuring the uniform and effective implementation of IMO treaties.[56].

In addition to the Technical Co-Operation Committee, the III Sub-Committee, which is also a subsidiary body under the MSC and the MEPC, can also play a role in capacity development. This subsidiary body has been established to identify measures necessary to ensure effective implementation of IMO instruments.[57] The III Sub-Committee also reviews and analyses the audit reports to identify the challenges facing states in the implementation, resulting from the ineffectiveness or difficult application of the existing IMO mechanisms and instruments, and provides suggestions for other IMO bodies to improve their practices and instruments,

[54] IMO Convention, Art.43(a), (c). Scott observed that typical environmental agreements have a specialised institutional body with the power to review and monitor the treaty compliance of state parties to the agreements, and some even have a quasi-judicial power and also have constructive mandate in providing technical assistance, as appropriate, for each individual state upon the initiation or request of other state parties. See Karen N Scott, 'Non-compliance Procedures and Dispute Resolution Mechanisms under International Environmental Agreements' in Matthew Saul and Nigel D. White Duncan French (ed), International Law and Dispute Settlement : New Problems and Techniques (Bloomsbury Publishing 2012), at p. 225-230.

[55] See how the audit scheme assists states in identifying their needs in Chapter 3, Section 3.3(c) above.

[56] International Maritime Organization, *Resolution A.1110(30) Strategic Plan for the Organization for the Six-Year Period 2018 to 2023*, (2017). The IMO has recognised that the technical capacity of member states is a factor in their implementation and that the IMO should take this into consideration when developing its work programme. See International Maritime Organization, *Resolution A.500(XII) Objectives of the Organization in the 1980s*, (1981); International Maritime Organization, *Resolution A.412 (XI) Acceptance and Enforcement of International Instruments Relating to Maritime Safety and Marine Environmental Protection*, (1980).

[57] Nivedita M. Hosanee, 'The Duties of the Flag State', in *A Critical Analysis of Flag State Duties as Laid Down under Article 94 of the 1982 United Nations Convention on the Law of the Sea* (Division for Ocean Affairs and the Law of the Sea Office of Legal Affairs, the United Nations 2009),at p. 50-51

including the audit scheme.[58] The suggestions of the III Sub-Committee might then be transferred to the MEPC and the MSC for consideration and may also be further considered by the Assembly in order to improve the strategic directions for promoting the uniform implementation and allocation of capacity-building.

4.4.2 The capacity-building under IMO treaties

Some treaties relating to ship-source pollution prevention and control and maritime safety, including MARPOL, BWM, and STCW, explicitly promote capacity-building through technical cooperation to assist states, including those performing treaties as flag states.

Firstly, MARPOL imposes the obligation on states to provide assistance to other parties upon request, while allowing them to perform the obligation by consulting with the IMO. [59] This convention clearly identifies the forms of assistance to include training, the supply of equipment and facilities for monitoring, the facilitation of measures or arrangements to prevent pollution from ships, and the support of research. However, the allocation of technical assistance should be prioritised for "the countries concerned" in order to achieve the aims of the convention. This means that the beneficiaries under this obligation are preferably those in need of assistance.

Secondly, BWM promotes capacity-building by calling on state parties to provide some sort of assistance to other states that request it.[60] This latter condition might reflect that technical assistance should be provided for those needing and actively requesting assistance. This convention allows the parties to perform this obligation through the IMO or other international organisations. This convention does not specify certain forms of assistance but rather provides the goals of assistance, which are to train personnel, ensure the availability of relevant technology, equipment, and facilities, establish cooperative research and development programmes, and take any actions to ensure effective implementation of the convention and relevant

[58] See International Maritime Organization, *Resolution A.1067(28) Framework and Procedures for the IMO Member State Audit Scheme*, (2013), at para.7.4; International Maritime Organization, *III 7/17 Report to the Maritime Safety Committee and the Marine Environment Protection Committee*, (2021), at para.7.1-7.55.
[59] MARPOL, Art.17
[60] BWM, Art.13

guidance. Furthermore, the convention also promotes cooperation for the transfer of technology in relation to the control and management of the ballast water and the sediments of ships, subject to their national laws and policies.[61]

Thirdly, the STCW also imposes an obligation on states to support the allocation of technical assistance to countries requesting training of administrative and technical personnel in addition to that of seafarers and the supply of facilities for training institutions.[62]

Although these treaties impose the obligation to provide technical assistance to states in need, this obligation can be executed through the IMO, which will be explored in the section below.

4.4.3 Capacity-building arranged by the IMO

Since the 1990s, the IMO has reformed the technical cooperation programme of the Organisation by introducing the Integrated Technical Co-operation Programme (ITCP)[63]. This technical assistance programme was developed under the initial objectives of the technical cooperation work of the IMO, which are to "assist developing countries by contributing to the enhancement of their capacity to comply with international rules and standards relating to maritime safety and the prevention and control of marine pollution, giving priority to technical assistance programmes that focus on human resource development and institutional capacity-building."[64] These objectives reflect that the IMO provides technical assistance for strengthening both the human capacity and organisational capacity of developing countries in implementing IMO treaties, including those relating to maritime safety, which do not explicitly require state parties to provide technical assistance.

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[61] BWM, Art.13(2)

[62] STCW, Art.11(a)

[63] The ITCP has been introduced as a result of the restructuring of the United Nations Development Programmes while also contributing to the strengthening of the work of the Technical Co-operation Committee. See International Maritime Organization, *Resolution A.838(19) Integrated Technical Co-Operation Programme Transfer of Funds from the Surplus of the Printing Fund*, (1995); International Maritime Organization, *Resolution A.873(20) Technical Co-operation as a Means of Promoting the Acceptance and Implementation of IMO Instruments*, (1997), at preamble.

[64] International Maritime Organization, *TC 46/3 Integrated Technical Co-Operation Programme (ITCP) for 2000-2001*, (1998), Annex, at p. 3

The ITCP has been operationalised as "an important media" by transforming technical cooperation policies and strategies into activity programmes and has also functioned as "a management tool" for the Organisation in allocating technical assistance by taking into consideration funding, regional programmes, resources, and impact assessment, hence enabling states to be able to uniformly implement IMO treaties.[65] Although the term "developing countries" and beneficiaries of the technical assistance have not been clearly defined by the IMO, the beneficiaries under the ITCP should be those having a poor capacity for implementing IMO instruments since the IMO's technical cooperation policy is "needs-based" capacity-building.[66]

By taking into account the institutional principles and directions given by the Strategic Plan of the IMO[67], the ITCP has been executed by the Technical Co-operation Committee under the guiding principles, so-called "ITCP Strategic and Implementation Principles"[68], for technical cooperation established by the Assembly. These principles include "development of human resources and institutional capacities on a sustainable basis," "development and enhancement of effective partnership arrangements, both financial and in-kind, in order to ensure the long-term and sustainable delivery of ITCP activities," and "delivery of technical assistance through knowledge-sharing, technical advisory services, and maritime training events."[69]

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[65] Ibid. See also David Edwards, 'Technical Assistance: A Tool for Uniform Implementation of Global Standards' in Myron H. Nordquist and John Norton Moore (ed), Current Maritime Issues and the International Maritime Organization (Martinus Nijhoff Publishers 1999), at p. 402.

[66] Resolution A.1110(30) (n 56), at p. 6. See also International Maritime Organization, *Resolution A.1166(32) Capacity-Building Decade 2021-2030*, (2022), Annex, at para.16; International Maritime Organization, *TC 70/3 Integrated Technical Cooperation Programme: Annual Report for 2019*, (2020), Annex 1, at p. 3.

[67] Since 1999, the IMO has clearly stipulated principles and strategic directions for the work of the Organisation, which include those for the ITCP. To date, the technical cooperation has been prioritised as a vital direction of the Organisation in ensuring uniform implementation of IMO treaties. The performance of the ITCP has also been monitored under the performance indicators in the strategic directions of the Organisation. See International Maritime Organization, *Resolution A.901(21) IMO and Technical Co-Operation in the 2000s*, (2000).
IMO (Resolution A.1110(30)) (n 56), Annex, at para.3-16
IMO (Resolution A.1166(32)) (n 66)

[68] International Maritime Organization, *Resolution A.1127(30) Guiding Principles of IMO's Integrated Technical Co-operation Programme In Support of the 2023 Agenda for Sustainable Development*, (2017), Annex

[69] Ibid.

The capacity building of technical and legal personnel in developing countries to implement IMO instruments, including the transposition of international standards into national legal frameworks and their enforcement, has been underlined under the technical cooperation policy of the IMO since the 2000s.[70] The ITCP has increasingly provided technical assistance to developing countries through hundreds of activities at national, regional, and global levels, including training, workshops, including the workshop on the general principles of drafting national legislation and implementing IMO conventions[71], seminars, partnership arrangements, and regional environmental programmes.[72] Some workshops provide the general principles of drafting national legislation implementing IMO conventions[73] while some training has been provided to lawyers, policymakers, legislative advisers, and drafters responsible for the legal and legislative implementation of the IMO instruments into their domestic legislation.[74] These technical assistance activities reaffirm that the IMO's technical assistance is mainly to increase the human resources capacity of developing countries, aligned with Articles 202(a) and 203 of UNCLOS. The ITCP has also given priority to the capacity building of government officials in developing countries through two maritime training institutions: the World Maritime University (WMU) and the IMO International Maritime Law Institute (IMLI).[75] These institutions could transfer technical, marine technological, and legal knowledge to flag state administrators in line with Articles 202 and 268 of UNCLOS.[76]

As illustrated in ***Table 1***, in 2019, the ITCP spent about 15.56 US million dollars. The IMO spent almost half of its funds on providing technical assistance relating to marine environmental protection and smaller numbers on those relating to maritime safety and maritime legislation.[77] These expenses have been funded by various

[70] International Maritime Organization, *TC 46/3 Integrated Technical Assistance Co-operation Programme (ITCP) for 2000-2001*, (2008), at appendix.
[71] IMO (TC 70/3) (n 66), Annex 1, at p. 17
[72] The ITCP had arranged 371 activities in 2019, slightly more than those in 2017 about ten percent. IMO (TC 70/3) (n 66), Annex 1, at p. 4
[73] IMO (TC 70/3) (n 66), Annex 1, at p. 17
[74] IMO (TC 70/3) (n 66), Annex 1, at p. 36
[75] IMO (TC 70/3) (n 66), Annex 1, at p. 5
[76] University of Virginia Center for Oceans Law and Policy (n 41), at p. 688. See also Harrison (n 16), at p. 1351.
[77] In 2019, the ITCP spent approximately 47 percent on technical assistance activities relating to marine environmental protection, while it paid for those relating to maritime safety and maritime

sources, including the Technical Cooperation Fund (TC Fund)[78], Multi-Donor Trust Funds (MDTFs) and bilateral agreements with governments, international organisations, and regional institutions.[79]

Discipline	2019
Maritime safety	2,015,814
Maritime security	1,830,626
Marine environment protection	7,271,433
Maritime legislation	332,758
Facilitation of international maritime traffic	53,541
Member State Audit	174,726
General maritime sector	2,716,594
Maritime training	1,169,233
Total in $	**15,564,725**

Table 1 Distribution of expenditure by discipline in 2019[80]

Bearing in mind that the function of the IMO in relation to capacity-building is to facilitate technical cooperation within the scope of the IMO constitution[81], the IMO established partnerships with governments, international organisations, and regional institutions to support the Organisation in allocating technical assistance to developing countries. Some are bilateral agreements with governments that support technical assistance by providing so-called "in-kind" support such as experts, funding, and catering.[82]

Many partnerships with individual governments and international organisations provide financial support for particular long-term projects relating to environmental protection. These technical cooperation projects, mostly regional programmes, have

legislation at about 10 percent and 2 percent, respectively. See International Maritime Organization, *TC 70/3/Add.1 Integrated Technical Cooperation Programme: Annual Report for 2019 - Annex 2: Overview of financial resource delivery* (2020), Annex 2, at p. 11.

[78] The TC Fund is resourced from the contribution of Member States and other incomes managed by the IMO. See International Maritime Organization, *TC.1/Circ.76 Revised Rules of Operation of the Technical Cooperation Fund*, (2021), Annex, at p. 1.

[79] IMO (TC 70/3/Add.1) (n 77), Annex 2, at p. 5-6. See also International Organization, *Resolution A.1128(30) Financing and Partnership Arrangements for an Effective and Sustainable Integrated Technical Cooperation Programme*, (2017).

[80] Since the global pandemic during 2020-2021 causes challenges in the delivery of technical assistance, this figure of 2019 is chosen to illustrate the expenditure for technical assistance in normal circumstances. See Resolution A.1128(30) (Ibid.), Annex 2, at p. 11; International Maritime Organization, *TC 72/16 Report of the Technical Cooperation Committee on its Seventy-second Session*, (2022), at p. 10.

[81] IMO Convention, Art.2(e)

[82] IMO (TC 70/3) (n 66), Annex 1, at p. 24

been provided to developing countries in many regions.[83] In 2021, the major donors include the UNEP, the European Union, Norway, and the Global Environmental Facility (GEF) in cooperation with the UNDP.[84] These donors generally finance certain projects based on their capacity-building policies. For instance, the GEF, operated by the UNDP, has funded several long-term technical cooperation projects such as GloBallast[85], GloMEEP[86] and GloFouling[87] which support the IMO in providing technical assistance to developing countries to strengthen their capacity to implement BWM, Annex VI of MARPOL, and AFS, respectively.[88] The GEF, which has been implemented by the World Bank, the UNDP, and the UNEP[89], provides funding to governments and specialised agencies, including the IMO, with a particular focus on the capacity-building of developing countries in order to "achieve global environmental benefits" in relation to environmental protection, including climate change and international waters.[90] Pernetta observed that the GEF is "the single largest source of international assistance for achieving global environmental benefits" through technology transfer, training, networking, workshops, equipment supply, and information exchange.[91]

The GEF's capacity development policies promote the long-term capacity of beneficiaries by strengthening the capacity necessary for promoting treaty compliance, in line with the managerial theory of compliance suggested by Chayes and Chayes. The GEF provides funding to the projects that are developed by states whose "national priorities [are] designed to support sustainable development and

[83] International Maritime Organization, *TC 72/3 Integrated Technical Cooperation Programme: Annual Report for 2021*, (2022), Annex 1, at p. 23; International Maritime Organization, *TC 72/4(b) Resource Mobilization and Partnerships: (b) Partnership arrangements*, (2022).
[84] TC 72/3 (Ibid.), Annex 2, at p. 6
[85] The Global Environment Facility (GEF), 'Globallast' <https://www.thegef.org/what-we-do/topics/globallast#results>, accessed 10 June 2023
[86] International Maritime Organization, 'ABOUT GloMEEP' <https://glomeep.imo.org/>, accessed 10 June 2023
[87] Ibid.
[88] International Maritime Organization, 'The Project: Objectives' <https://www.glofouling.imo.org/objectives> accessed 10 June 2023
[89] Global Environmental Facility (GEF), *Instrument for the Establishment of the Restructured Global Environment Facility* (2019), Art.22
[90] Ibid., Art.2
[91] GEF (n 89), Preamble (c). This observation has also been emphasised by the GEF Constitution. See John C. Pernetta, 'An overview of the role of the Global Environment Facility in international waters with reference to marine capacity building' (1998) 22 Marine Policy 235, at p. 235-236, 240.

shall maintain sufficient flexibility to respond to changing circumstances in order to achieve [their] purposes"[92]. Moreover, the capacity development approach of the GEF, implemented by the UNDP, focuses on a comprehensive process that builds the capacity of relevant stakeholders. This includes engaging in the management of global environmental issues; accessing and utilising relevant information and knowledge to identify and solve environmental problems; developing and enacting effective policies and legislation; implementing environmental policies and legislation; and monitoring and reviewing projects to identify and suggest further improvements.[93] These capacities are those required for establishing mechanisms to promote treaty compliance, which are investigated in the chapters on the transposition of international standards into national legal frameworks and national enforcement. For example, the GloBallast Programme has assisted states in developing national strategies for implementing BWM, including monitoring and enforcement, and providing examples of the domestic regulatory approaches of some developed countries with suggestions for regulatory designs and an overview of the international legal framework relating to BWM.[94]

Furthermore, it also helps states that are beneficiaries of the projects identify the areas in need of capacity development. As such, states that participate in and are overseen by the GEF's projects could have the ability to put in place a sort of system for the national implementation of the treaties. As such, these funded projects are likely to strengthen the capacities of developing countries to establish and implement the national legal framework underlined by national policy and strategies, with the aim of enabling them to implement particular environmental treaties efficiently, subject to the individual projects. In other words, the capacity-building programmes, which allocate technical assistance upon capacity-building policies of the funders or the partners of the projects, have been executed to promote the long-term organisational capacities of states to implement particular treaties by taking

[92] GEF (n 89), Art.4

[93] United Nations Development Programme (UNDP), *Monitoring Guidelines of Capacity Development in GEF Operations* (2015), at p. 6

[94] See Moira J. McConnell, *GloBallast Legislative Review: Final Report* (GloBallast Monograph Series No 1, 2002); L. Riddering J. Tamelander, F. Haag and J. Matheickal, *Guidelines for Development of a National Ballast Water Management Strategy* (GloBallast Monograph Series No18, 2010).

into consideration the key factors for organisational capacity-building suggested by Kaplan [95] and the multi-dimension of capacity suggested by Ohiorhenuan and Wunker[96].

Nevertheless, some developing countries might miss the opportunities to participate in the partnership projects, especially those that become parties to the treaties after the projects are completed and those that are not in the region subject to the partnership projects. As such, there may be some developing countries with insufficient capacity to establish a sort of national system consisting of policies and legal mechanisms to enable them to implement treaties, although the relevant knowledge and guidance developed under the projects for their implementation are publicly available[97]. These challenges might be eased by the nomination of National Knowledge Partnership Officers (KNPOs) as a focal point to communicate with the IMO in relation to the allocation of technical assistance, particularly knowledge partnership mechanisms of the IMO.[98] The strengthening of technical cooperation through the KNPOs provides opportunities for developing countries to seek technical assistance from the IMO through knowledge partnership projects. However, the establishment of the KNPOs alone might be ineffective for ensuring that all developing countries can have the capacity-building opportunities provided by the partnership programmes unless the states have the ability to identify their needs and the projects that can support their needs are also available. Yet, it is undeniable that the KNPOs could assist states to ensure that they might not miss the opportunities for technical assistance (even when there are technical assistance programmes available), while the communication of national needs for assistance with the IMO could also help the IMO enhance technical cooperation through fundings and partnerships more efficiently, in particular when financial resources are limited[99].

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[95] Kaplan (n 14), at p. 518-523

[96] Ohiorhenuan and Wunker (n 9), at p. 15-17

[97] International Maritime Organization, 'Knowledge Partnership Mechanism for IMO's Technical Cooperation Towards Sustainable Development', at p. 12, in <https://wwwcdn.imo.org/localresources/en/OurWork/PartnershipsProjects/PublishingImages/Pages/Partnerships/Knowledge%20Partnership%20final%20report%20(TC%2070-4(a)).pdf> accessed 10 June 2023

[98] International Maritime Organization, *Circular Letter No.4004 Designation of National Knowledge Partnership Officers*, (2020)

[99] See International Maritime Organization, *Resolution A.1167(32) Revised Financing and Partnership Arrangements for an Effective and Sustainable Integrated Technical Cooperation Programme*', (2022),

4.5 Building long-term institutional capacity of developing countries

As explored in the previous section, in practice, ITCP activities mostly focus on strengthening the technical capacity of human resources in developing countries according to their needs. However, the effectiveness of the ITCP might be undermined by the poor capacity of states to identify the areas of capacity in need of assistance. Hence. This latter challenge can be alleviated when there is a capacity-building mechanism available for assisting all states in identifying the areas while ensuring that they also have an institutional capability for implementing international shipping standards, as suggested by Ohiorhenuan and Wunker [100], Kaplan[101] and others[102].

Although some partnership programmes have been executed to promote the institutional capacity of developing countries, their capacity-building policies might be varied, resulting in different qualitative outcomes. Although training can enable states to establish national capacity-building programmes[103], it does not ensure that states will take this opportunity to establish the national programme or a domestic mechanism to provide capacity-building within the states by utilising those who have been trained by external assistance. As Harden-Davies and co-authors observed, the allocation of a single training or even higher educational support given to states' officials may not contribute to the long-lasting capacity. [104] The IMO's capacity-building programme should be designed to ensure that the states receiving the technical assistance have an institutional mechanism to provide domestic capacity-building programmes.

Hence, it might be necessary for the IMO to have in place a mechanism to ensure that the needs of all countries can be identified and also assist the IMO to efficiently

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at preamble; International Maritime Organization, *Resolution A.1128(30) Financing and Partnership Arrangements for an Effective and Sustainable Integrated Technical Cooperation Programme* (2017), at para.5.

[100] Ohiorhenuan and Stephen Wunker (n 9), at p. 15-17

[101] Kaplan (n 14), at p. 517-523

[102] Gjerde and others (n 12), at p. 4

[103] Harrison (n 16), at p. 1350

[104] Diva J. Amon Harriet Harden-Davies, Tyler-Rae Chung, Judith Gobin, Quentin Hanich, Kahlil Hassanali, Marcel Jaspars, Angelique Pouponneau, Katy Soapi, Sheena Talma and Marjo Vierros, 'How can a new UN ocean treaty change the course of capacity building?' (2022) Aquatic Conservation: Marine and Freshwater ecosystems 907, at p. 909

allocate technical assistance, which provides long-term organisational capacity to develop a national system consisting of policies and strategies and the legal framework and ensures the ability to enforce the legal framework.

In recent years, the audit scheme has contributed to this objective by functioning as a compliance mechanism provided by the IMO to assist both the IMO and all states to provide and receive capacity-building, respectively. In addition to the oversight function, the audit scheme also assists states in identifying the capacity in need of assistance and establishing an institutional system to facilitate the implementation. Firstly, as observed in Chapter 3, the audit scheme facilitates states in preliminary assessing their institutional capacity by taking into consideration the multi-dimensions of the capacity as specified in the III Code[105], for implementing the international shipping standards before the audit. In line with the CART suggested by Ohiorhenuan and Wunker[106] and Kaplan[107], the audit framework[108] and the III Code provide some sort of guidelines for evaluating the capacities of states in the implementation, including the sufficiency of technical experts in legal drafting and enforcement and a national system for the implementation. This institutional system includes national policies and strategies for promoting the implementation of the treaties, the preparation for implementing the treaties and their amendments, the national legal framework and its enforcement, the culture for improvement, national agencies involved in the enforcement, the availability of qualified personnel, the review and monitoring system of the states, and the improvement of national practice.[109] As Harden-Davies and co-authors observed, donor-led capacity development "may be an unintentional spill-over effect from a partnership"[110], and the audit scheme is likely to eliminate this possible adverse outcome by using the cooperative approach to encourage states to establish the domestic system, based on their national context

[105] International Maritime Organization, *Resolution A.1070(28) IMO Instruments Implementation Code (III Code),* (2013), Annex, Part 1, 2
[106] Ohiorhenuan and Stephen Wunker (n 9), at p. 15-17
[107] Kaplan (n 14), at p. 517-523
[108] Resolution A.1067(28) (n 58), at para.7.4
[109] Resolution A.1070(28) (n 105), at para.3, 7, 8, 11-14, 15.1-15.2, 16, 22. 28-41, 46, 49-51, 54.1, 55, 57-63. The establishment of this institutional system will be discussed in Chapter 6, especially section 6.2.5.
[110] Harden-Davies et al. (n 1), at p. 3

and domestic interests, necessary for facilitating the national implementation of regularly adopted international standards.

Even if states lack the capacity to identify their needs before the audit, the audit process, through the auditors nominated from IMO's member states, can alleviate this challenge by assessing the institutional capacities of individual states and identifying the areas in need of improvement. The institutional system-oriented audit could therefore assist states, especially developing countries, in identifying the areas of institutional capacity in need of improvement and planning for further actions to improve their practices. As such, the post-audit result reveals the needs of technical assistance for every IMO's member state participating in the audit scheme, hence enabling the IMO, through the Technical Co-operation Committee, to provide technical assistance by taking into consideration the national conditions of each country.[111] Moreover, the monitoring of the execution of corrective action plans by the IMO could ensure that states have an institutional system in place for implementing IMO treaties.

Nevertheless, the identification of the areas in need of assistance by individual states provided by the IMO through the audit scheme may be ineffective since it relies, to some extent, on the discretion of auditors to produce the audit outcomes, which might be used later by the states to request technical assistance[112]. Furthermore, the system promoted by the audit scheme does not have a mechanism to maintain and strengthen the institutional capacity within the states. Although the audit scheme could help the IMO and states identify the needs of assistance, the 7-year interval of the audit[113] may be too late for facilitating technical assistance to some countries, especially those that become parties to a treaty after the audit or those that are parties to non-audited treaties. Thus, the audit scheme alone might not be enough to promote long-term capacity for implementation.

Since 2022, the IMO's technical assistance policies have moved towards the support of the long-term institutional capacity of states, especially developing countries,

[111] International Maritime Organization, 'Technical Cooperation' <https://www.imo.org/en/ourwork/technicalcooperation/pages/default.aspx>, accessed 8 May 2023
[112] Resolution A.1067(28) (n 58), Annex, at para.7.1
[113] Resolution A.1067(28) (n 58), Annex, at para.4.1.1

including the LDCs. To implement the 2030 Agenda for Sustainable Development[114], particularly Sustainable Development Goal 17.9 on the capacity-building as a means to "strengthen the implementation and revitalize the global partnership for sustainable development," the IMO reformed its capacity-building policies through the "Capacity-Building Decade 2021-2030 Strategy" (2021-2030 Strategy). Increasing the focus on developing countries' institutional capacity is part of the 2012-2030 Strategy's mission, which highlights the requirement to address the needs of countries through the audit scheme and sets the goal that, by the end of 2030, the majority of Member States, including developing countries, will have been supported to develop national maritime policies and strategies, a national legal framework, action plans, and mechanisms for establishing technical cooperation at national and international levels.[115]

To implement the 2021-2030 Strategy, the IMO can use the audit scheme, particularly the III Code and the Audit Framework, as the background for developing its capacity-building mechanisms. To ensure consistent and effective implementation of all IMO treaties related to maritime safety and ship-source pollution prevention, the IMO can develop a simple matrix-like tool, such as the Comprehensive Analysis of the Regulatory and Institutional Framework (CART), accompanied by application guidelines for states. This tool should incorporate the establishment of a national system for IMO treaty implementation as recommended in the International Code for the Safety of Ships and for Pollution Prevention (III Code). Additionally, the IMO should integrate the capacity-building approaches used by its partners, such as the Global Environment Facility (GEF), into its technical cooperation policy. This integration should establish minimum requirements for technical assistance aimed at strengthening states' institutional capacity. The policy should also provide suggestions and strategies for implementation, including access to knowledge and best practices identified through audit results. Hence, the confidentiality of individual audit results should be removed and analysed to present the best practices that

[114] The United Nations, *A/RES/70/1 Resolution adopted by the General Assembly on 25 September 2015: 70/1. Transforming our world: the 2030 Agenda for Sustainable Development*, (2015), at p. 1, 14, 26

[115] Resolution A.1166(32) (n 66), Annex, at para.5

support states. Furthermore, to ensure confidence in the uniform implementation of treaties, other states should be granted access to and the opportunity to comment on the implementation of individual states' corrective action plans.

There are some further actions that should also be taken by the IMO.[116] The follow-up mechanism should also be introduced to oversee the national capacity-building programme established in a state, especially after the state has been given assistance from the IMO, to ensure that the given technical assistance has contributed to the long-term capacity of the state, thus reducing the need for assistance from external support. To assist states in identifying their capacity needs, the relevant experts who are assigned to provide training or workshops for the implementation of a treaty may also help the states identify the capacity in need of assistance. Although the III Sub-Committee can also identify areas of difficulty that may have been faced by states in the implementation of international shipping standards[117], the significant difficulties of some individual states may not be considered. Since the III Sub-Committee does not have the authority to determine how to allocate technical assistance to any states, the Technical Cooperation Committee also lacks a mandate to identify the areas that need to be improved by each individual state. To strengthen the IMO's role in promoting uniform implementation through technical assistance, the IMO could consider either restructuring and enhancing the existing functions of relevant bodies or establishing a new institutional body. This new body would consist of technical experts with the authority and expertise to assess and determine the individual needs of member states. Based on the self-evaluated and audit outcomes, the body would then provide targeted technical assistance to address these identified needs.

4.6 Conclusion

The non-uniform implementation of international shipping standards, which has been caused partly by the insufficient capacity of states, especially those with relatively low economic capabilities, could be alleviated by building the capacities of

[116] Resolution A.1067(28) (n 58), Annex, at para.7.1

[117] See, e.g., International Maritime Organization, *MEPC 65/12/3 Restructuring of the Sub-Committees*, (2013), Annex 6.

the states. Capacity-building is therefore considered a management tool, as a part of the compliance process observed by Chayes and Chayes, for helping those states to uniformly implement the international standards. This chapter has considered how capacity-building has been recognised and applied by the relevant provisions of UNCLOS, the legal instruments, and the IMO.

To ease capacity-related challenges for states in the implementation of IMO treaties, capacity-building has been provided by the IMO, mainly through knowledge-transfer approaches including training, workshops, and education. The IMO established the ITCP, funded by various sources, as a management mechanism driven by the Technical Co-operation Committee under the technical cooperation policy and strategy and the suggestions from the III Sub-committee (if any) to facilitate capacity-building in developing countries. However, the ITCP alone may be ineffective in promoting uniform implementation since it can efficiently allocate technical assistance to countries when their needs for capacity-building are identified. This latter challenge can be alleviated by the audit scheme. The oversight provided by the audit scheme will reveal the areas of poor performance of states and help identify their needs for capacity-building. The result of the audit can be used by the states to seek technical assistance from the IMO. However, the audit scheme may not enable states to maintain and strengthen the institutional capacity within the states if states do not establish a capacity-building programme to maintain the capacity for the implementation of newly adopted international shipping standards. Moreover, the interval period of the audit may be too long for identifying any areas of improvement that arise after the audit.

To execute the newly established Capacity-Building Decade 2021-2023 Strategy, which highlights institutional capacity-building with the aim of sustainable outcomes, this chapter suggests that the IMO introduce a simple matrix, adapted from the CART, that illustrates the multiple dimensions of the capacity needed for the implementation of treaties as a management tool for the IMO in identifying the needs of technical assistance. This table may be handed to the experts who provide technical assistance activities to the states to assist them in identifying their needs. The III Code can also be used to help with the creation of this table. It outlines how

to implement treaties and set up a national system to support those efforts. It could help states preliminary assess their treaty performance and efficiently identify the capacity in need of assistance to improve their practices. Hence, it could facilitate the institutional capacity-building programme and ensure that the programme would be executed efficiently in response to the needs of the states. This chapter also suggests the IMO analyse and reveal the audit results of individual states, especially those representing the best practices with respect to the legal framework and enforcement, as examples for other states. It is with this task in mind that we turn to the following chapters to look at two particular challenges faced by countries in the implementation of treaties, namely the transposition of treaty standards within the relevant timeframes and the appropriate enforcement of standards.

Part II The national legal framework for maritime shipping

Chapter 5 Challenges and strategies for states in the transposition of international shipping standards into the national legal framework

Although the IMO has employed several treaty-making techniques under its institutionalisation to strengthen maritime safety, prevent marine pollution from vessels, and promote the uniform and universal implementation of IMO treaties, some developing states, including Thailand, still have difficulties in the transposition of the international shipping standards into the national legal framework. This chapter will therefore investigate the challenges facing developing states in general and those of Thailand as a case study in the transposition of the international standards developed by the IMO into domestic legislation. The challenges facing developing states in the incorporation of IMO treaties into national legislation will first be investigated. Then the challenges of Thailand, as a case study in the transposition of IMO treaties into a domestic legal framework, will be scrutinised. Particularly, the challenges of the latter matter mainly relate to the law-making techniques of domestic administration. The strategies for improving the practice will then be proposed with an example of the UK's law-making techniques as a good practice.

5.1 Challenges of states in the transposition of international shipping standards into national legal framework

As state parties to treaties are obliged to perform the treaties in good faith and respect the supremacy of treaties[1], each state shall ensure that the treaties are implemented through different domestication approaches, depending on national constitutions. Generally, the monist and dualist approaches represent the two main constitutional approaches for making a treaty enforceable in states. States adopting the monist approach automatically incorporate a treaty into domestic law upon its approval, without the need for additional incorporation into the domestic legal framework.[2] On the other hand, states relying on the dualist approach generally

[1] VCLT, Art. 26-27

[2] Francis G. Jacobs, 'Introduction' in Francis G. Jacobs and Shelley Roberts (ed), *The Effect of Treaties in Domestic Law* (Sweet and Maxwell 1987), at p. xxiv

confer domestic legal effect on a treaty only through its transposition into the national legal framework.[3] States employing a dualist approach, such as the UK, generally require the transposition of treaties into national legislation in order to make domestic legal effect of the treaties, whether parliamentary approval is required for the ratification.[4] Despite this broad distinction, even monist states such as France[5] and the Netherlands[6] might require national legislation to give legal effect to the treaties, depending on the nature or subject matter of the treaty. For example, IMO treaties, which are not "self-executing" treaties[7], are generally required to be transposed into national laws among many monist states, including France[8] and the Netherlands[9] as these treaties impose obligations on state parties to perform the duties. Thus, international shipping standards developed by the IMO will have national legal effects in dualist states and some monist states only when they are incorporated into the domestic legal framework. Yet there are several challenges that come about in the transposition process, particularly as a result of the automatic entry into force of IMO amendments within a specific time period in accordance with the tacit acceptance procedure, as discussed in Chapter 2.

[3] Ibid., at p. xxiv, xxvi

[4] See Jacobs (n 2), at p. xxvi. See also R. Higgins Q.C., 'United Kingdom' in Francis G. Jacobs and Shelley Roberts (ed), *The Effect of Treaties in Domestic Law* (Sweet and Maxwell 1987), at p. 125-127.

[5] See details of how treaties could have legal effects in France in J. D. de la Rochére, 'France' in Francis G. Jacobs and Shelley Roberts (ed), *The Effect of Treaties in Domestic Law* (Sweet and Maxwell 1987), at p. 39-43.

[6] See details of how treaties could have legal effects in the Netherlands in Henry G. Schermers, 'Netherlands' in Francis G. Jacobs and Shelley Roberts (ed), *The Effect of Treaties in Domestic Law* (Sweet and Maxwell 1987), at p. 110-115.

[7] The IMO explicitly confirmed the non-self-executing nature of IMO treaties, which requires the transposition of treaties into a domestic legal framework. The United States of America has also insisted that IMO treaties such as MARPOL 1973/1978 are not self-executing treaties that need to be transformed into domestic law. See International Maritime Organization, 'International treaties can only become law when implemented into national legislation' <http://www.imo.org/en/MediaCentre/PressBriefings/Pages/24-legal-workshop.aspx> accessed 5 February 2021. See also United States v. Ionia Mgmt. S.A. (2nd Circuit) (2009), at p. 5.

[8] See an overview of the domestication of international shipping standards into the French domestic legal framework in Cécile De Cet Bertin, 'French rules concerning maritime safety' in Justyna Nawrot and Zuzanna Peplowska-Dabrowska (eds), *Maritime Safety in Europe: A Comparative Approach* (Routledge 2021), at section 6.2.

[9] See an example of the incorporation of international shipping standards into the Dutch legal framework in Frank Stevens, 'Comparative maritime safety: The Netherlands' in Justyna Nawrot and Zuzanna Peplowska-Dabrowska (ed), *Maritime Safety in Europe: A Comparative Approach* (Routledge 2021), at sections 12.2, 12.3, 12.5.

In 2016, the IMO found that among eighteen Member States, of which twelve were developing countries[10], some states could not incorporate international shipping standards, particularly amendments of treaties, into national legal frameworks as a consequence of the lack of legal basis in Acts of Parliament.[11] This problem has also been a challenge for some developed states, such as Finland[12], while some other states, such as Bangladesh and China (Hong Kong), had also struggled with the complexity of the national legal process.[13] These challenges show that the Acts of Parliament of some states were outdated and lacking in the delegation of subordinate legislative power. Even though the IMO suggested the member states use a "fast-track" or "direct reference" approach to incorporate international standards, particularly amendments to IMO treaties, into domestic legislation, guidance for the application of this approach has not been given.[14] The primary law-making process in many countries is also complicated or even takes a long time; therefore, it cannot be amended regularly in line with the amendments to IMO treaties. Bangladesh, China (Hong Kong), and Finland also faced this latter challenge.[15] The problems relating to the transposition of international standards into national legal frameworks have also been found in other international frameworks that also develop and adopt amendments to technical standards by the tacit acceptance procedure, such as the Convention on Civil Aviation 1944 (as amended) (Chicago Convention 1944) relating to the safety of air transport.[16]

In addition to the delegation of legislative power to the executive bodies, technical incapacities, including the availability of technical and legal experts and the workload of translating international standards into local languages, are also significant

[10] International Maritime Organization, *Circular Letter No.3772 IMO Member State Audit Scheme - Consolidated Audit Summary Report (CASR)*, (2017), at para. 1.
[11] Ibid., at para. 106-107.
[12] International Maritime Organization, *ASR No.41713 Audit Summary Report* (2011), at p. 9-10, 47-49
[13] Md Saiful Karim, 'Implementation of the MARPOL Convention in Bangladesh' (2009) 6 Macquarie Journal of International and Comparative Environmental Law 51, at p. 65, 68-69. See also International Maritime Organization, *ASR No.39642 Audit Summary Report* (2010), at p. 9-10.
[14] IMO (Circular Letter No.3772) (n 10), at para. 117, 417
[15] Karim (n 13), at p. 65, 68-69. See also IMO (ASR No.39642) (n 13), at p. 9-10; International Maritime Organization, ASR No.41713 Audit Summary Report (2011), at p. 7-8.
[16] Chicago Convention, Art.37, 38, 90. See also Paul Stephen Dempsey, 'Compliance & Enforcement in International Law: Achieving Global Uniformity in Aviation Safety' (2004) 30 North Carolina Journal of International Law and Commercial Regulation 1, at p. 21; International Civil Aviation Organization (ICAO), *Safety Report: Universal Safety Oversight Audit Programme* (2019), at p. 28-29.

challenges for some states, such as Kenya.[17] Some states also failed to establish national standards as required by treaties because of their failure to interpret international shipping standards.[18] For example, the term "to the satisfaction of the administration" in SOLAS has not yet fully been implemented by some states, such as Bulgaria, which didnot establish national standards as required by the treaty.[19] Furthermore, some countries, including developed countries such as Finland, also had the same problem due to the lack of a procedure for interpretation and communication with relevant officials[20] whereas some developing states such as Tunisia and Nigeria also have difficulties in implementing international shipping standards due to a variety of domestic administrative challenges, which include the lack of political will, the inadequate national collaboration between relevant agencies, the internal system for following-up amendments of IMO treaties, and the lack of a regulatory review for ensuring the systematic transposition of amendments of IMO treaties into the national legal framework.[21] The problem also occurred in some developing states, such as Tunisia.[22]

Although the IMO has provided guidance on the incorporation of some treaties, such as MARPOL, into the national legal framework,[23] the guidance only provides rough

[17] See IMO (ASR No.39642) (n 13), at para.12-13, 42-43, 57-58, 94-95; IMO (ASR No. 41713) (n 15), at para. 49. See also Annette Wangari Muriithi, 'A case study of the implementation and enforcement of MARPOL Annex VI sulphur regulations in Kenya' (Master Thesis, World Maritime University 2019), at p. 47.

[18] IMO (Circular Letter No.3772) (n 10), para. 12-13, 415-416. See also The Intergovernmental Commission (IGC) TRACECA, 'The Presentation on the Experience of the Bulgarian Maritime Administration: Seminar on the Implementation of measures to ensure that safety standards are "to the Satisfaction of the Administration"' (2016) <http://www.traceca-org.org/en/technical-assistance/maritime-safety-and-security-ii-mss/documents/seminar-on-the-implementation-of-measures-to-ensure-that-safety-standards-are-to-the-satisfaction-of-the-administration/>, accessed 10 October 2020

[19] TRACECA (Ibid.)

[20] IMO (ASR No. 41713) (n 15), at p. 8

[21] See IMO (ASR No. 41713) (n 15), at para. 6-7, 12-13, 39-40, 57-58, 66-67, 79-81; International Maritime Organization (IMO), *ASR No.50112 Audit Summary Report* (2013), at p. 10. See also Aliyu Ahmed-Hamed, 'The Challenges of Implementing International Treaties in Third World Countries: The Case of Maritime and Environmental Treaties Implementation in Nigeria' (2016) 50 Journal of Law, Policy and Globalization 22, at p. 25.

[22] IMO (ASR No.50112) (Ibid.), at p. 10

[23] The IMO published the "MARPOL: How to do it" and also provided a guidance for implementing Annex VI of MARPOL. These tools provide guidelines for implementing Annex I-VI of MARPOL by taking into consideration administrative requirements for state parties. See International Maritime Organization, *MARPOL: How to do it* (International Maritime Organization 2013), at p. 156-168. See also Science and Technology International Maritime Organization and Institute of Marine Engineering,

examples of the model of national regulations implementing the standards. The soft law instruments, such as guidance for the implementation of a treaty developed by the IMO, and the flexible phrases, such as "to the satisfaction of the Administration,"[24] in the treaties for facilitating the implementation of the treaties might be insufficient for ensuring the full implementation of the treaty. These soft laws do not provide domestic law-making techniques for implementation, and they therefore might be inadequate for some states, particularly those that need to implement the international standards through an Act of Parliament, which could not be regularly amended in line with the amendment of IMO treaties by the tacit acceptance procedure. As a result of the challenges in the transposition of international shipping standards, particularly those amended by the tacit acceptance procedure, a significant delay in the implementation of treaties would be unavoidable.

5.2 Challenges in the transposition of international shipping standards: A case study of Thailand

In order to better understand the nature of the challenges, this section will explore in detail a case study of the legal transposition process in Thailand. Since 1973, when Thailand became a member of the IMO, Thailand has become a party to only sixteen out of over fifty treaties developed by the IMO. Thailand has implemented UNCLOS and many major treaties, including SOLAS, Annex I, II, and V of MARPOL, Load Lines, TONNAGE, STCW, and COLREG, by incorporating these international shipping standards into national laws, particularly the Navigation in Thai Waters Act 1913 (NWA 1913) and its amendments, the Thai Vessel Act 1938 (TVA 1938), and the Prevention of Ship Collision Act 1979 (PCA 1979). However, these national laws have not entirely implemented all amendments to these treaties, resulting in the risk of noncompliance by Thai ships with international standards.[25] The purpose of this section is to understand

Ship Emissions Toolkit Guide No.2: Incorporation of MARPOL Annex VI into national law (2018), at p. 9-12.

[24] The IMO found that some countries could not establish national standards to which the IMO left "to the Satisfaction of the Administration" due to the lack of technical experts or the legal basis for establish the national standards and suggested states to seek technical assistance. See IMO (ASR No. 41713) (n 15), at p. 2-3, 29, 40.

[25] Although Knudsen and Hassler observed that the IMO recognised the port state measure as a "safety net" to rectify the ineffective implementation of flag state, it could not ensure that all port states could effectively perform their jurisdictional power in accordance with IMO treaties. See Olav

the process for transposing IMO treaties into national law and the challenges inherent therein.

5.2.1 The national maritime administrations and national policy for the implementation of international shipping standards

Maritime shipping in Thailand has been regulated by many government agencies, such as the Marine Department (MD), the Minister of Transport (MoT), the Office of the National Broadcasting and Telecommunications Commission, the Communication Authority of Thailand, the Meteorological Department, and the Hydrographic Department. In addition to those involved in the implementation of IMO treaties, the Council of State is a central consultative office under the Prime Minister for legal drafting, particularly Acts of Parliament and ministerial regulations upon directions of the Prime Minister and the resolutions of the Council of Ministers (Cabinet).

Among these government agencies, the MD is the main agency, acting as a flag state, responsible for regulating water transport and the shipping industry, particularly with respect to the safety of shipping and ship-source pollution prevention. This agency is therefore the main flag state administration implementing international shipping standards, particularly IMO treaties including SOLAS, Annex I, II, and V of MARPOL, Load Lines, COLREG, TONNAGE, and STCW to which Thailand is a party, and performs its functions as flag state, port state, and coastal state. The MD's responsibilities include ship survey and certification, the authorisation of ship surveys to classification societies, casualty investigation, port state control and inspection, the control of port reception facilities, ship routing and reporting, vessel traffic systems, and aids to navigation. There are many divisions of the MD involved in the implementation of IMO conventions, including in the legal drafting and enforcement of national legislation, particularly the NWA 1913, TVA 1938, and PVA 1979. The main divisions are: the Ship Standards Bureau, which regulates ship surveys and the issuance of international certificates; the Water Safety and Environment Bureau, which controls and monitors water transport with regards to maritime safety and marine pollution in national waters; the Seafarers Standard

F. Knudsen and Bjorn Hassler, 'IMO legislation and its implementation: Accidental risk, vessel deficiencies and national administrative practices' (2011) 35 Marine Policy 201, at p. 202-203.

Division, which regulates seafarers' qualifications and matters relating to seafarers; the Legal Bureau Affairs, which is responsible for legal drafting and legal proceeding; and the Ship Standard Registration Bureau, which regulates ship registrations. Even though many regulators under the MD other than the Legal Bureau Affairs, might not have legal expertise, the regulators, especially the Ship Standards Bureau, the Water Safety and Environment Bureau, and the Seafarers Standard Division, generally make preliminary drafts of subordinate legislation implementing international shipping standards before handing the matter to the Legal Affairs Bureau for final consideration and completion of the legislative process within the MD or handling a bill to the Council of State for further consideration, as the case may be. As such, the transposition of international shipping standards into the domestic legal framework and its enforcement have been done by the multiple divisions within the MD.

It is also worthwhile to note that Thailand has attempted to improve the state's practice in the implementation of international shipping standards in response to the impending audit, which was initially scheduled for 2022. Since late 2020, before Thailand was audited by the IMO under the mandatory audit scheme in 2023[26], the implementation of IMO treaties relating to these matters has been given priority by Thailand, as illustrated in the National Maritime Strategic Plan, by considering the guidelines in the III Code, which has been adopted by the National Committee for Cooperation with the International Maritime Organization.[27] The Plan lay downs the main principles for the actions of relevant agencies, which include the effective and efficient implementation of IMO treaties and instruments, national cooperation, and monitoring of the implementation, with the aim of strengthening maritime safety

[26] In 2016, after acknowledged the expected year of being audited by the IMO, the State has begun to evaluate and plan to improve the overall implementation of the State. Thailand was scheduled to be audited in 2022 but delayed until early 2023. For details of and discussion on the voluntary and mandatory audit scheme, see section 3.3.1 above. See also Ship Standard Bureau, *Kor Kor 0322/Sor Mor Ror 71 Approval for Workshop on the Preparation for the IMO Member State Audit Scheme* (IMSAS) (2016) (Thai language); International Maritime Organization, A 32/10 IMO Member State Audit Scheme: Report on the implementation of the Scheme (2021), Annex, at p.7.

[27] This Committee was established by the Cabinet since 2009 as the central committee for national cooperation between relevant agencies, particularly the Ministry of Transport, Marine Department, Ministry of Foreign Affairs, Port Authority of Thailand and the Ministry of Natural Resources and Environment. See National Committee for the Cooperation with the International Maritime Organization, *Strategic Plan for Actions in Conformity with the International Maritime Organization's Standards*, (2020) (Thai language).

and marine pollution prevention, coordinating between relevant agencies, developing the monitoring system for the implementation, and also promoting international cooperation. Obviously, Thailand has established the Strategic Plan and national maritime policy by considering the III Code, to improve the implementation of IMO treaties relating to maritime safety and environmental protection. Although the capacity of the implementation and national capacity-building are not recognised, these efforts show the significant influence of the mandatory audit scheme on the state.

5.2.2 The Challenges in the transposition of international shipping standards into the Thai legal framework

(1) The ratification of treaties and the acceptance of amendments of their amendments

Since 1932, the Kingdom of Thailand (Thailand) has been reformed from an absolute monarchy to a constitutional monarchy.[28] While the Thai constitution has changed many times since then, parliamentary approval for ratifying certain treaties, has remained a feature of all constitutions, although there might be some different requirements for parliamentary approval. Until 1949, the Constitution had given priority to participation in the treaty-making process, particularly the ratification of treaties, by requiring parliamentary approval.[29] By virtue of Section 178 of the present Constitution of the Kingdom of Thailand 2017 (Thai Constitution 2017), Thailand could accept a treaty that requires the enactment of an Act of Parliament, provided that it has been approved by the Parliament, which consists of the House of Representatives and the Senate.[30] It follows that the enactment of national legislation should be thoroughly explored by taking into consideration the hierarchy of laws and the technical nature of international obligations. In practice, Thailand normally takes years for ratification of treaties, particularly IMO treaties, after they

[28] Kriangsak Kittichaisaree, 'Effectuation of International Law in the Municipal Legal Order of Thailand' (1995) 4 Asian Yearbook of International Law 171, at p. 174

[29] The Constitution of the Kingdom of Thailand 1949, section 154, para.2. See Sompong Sucharitkul, 'National Treaty Law and Practice: Thailand' in Merritt R. Blakeslee and Benjamin Ederington Duncan B. Hollis (ed), *National Treaty Law and Practice*, vol 1 (Brill Nijhoff 2005), at p. 693.

[30] Thai Constitution 2017, section 79, 178

have been adopted because there are several internal processes before the parliamentary consideration, including participation in the treaty-making negotiations and consideration for becoming a party to a treaty by relevant government agencies. Even so, the parliamentary process shows that the state has an interest in the treaty and intends to become a party to it when it ratifies the treaty, leaving competent agencies to implement amendments to the treaty after the ratification without parliamentary scrutiny. The latter process also applies to international shipping standards developed later in the form of interpretative resolutions, which may have legal consequences for state parties to the respective IMO treaties.

Treaties ratified by Thailand and their amendments do not directly impact individuals within the country. Individuals lack the legal standing to invoke treaty obligations unless those treaties have been incorporated into domestic legislation. This incorporation must occur through hierarchically prescribed forms such as an Act of Parliament and its subordinate legislation, including rules and ministerial regulations. The dualist approach to treaty incorporation has long been accepted through constitutional practice, which has been confirmed by the Council of State and the Cabinet since 1994, even though it has not been expressly stated in the Thai Constitution 2017.[31] This means that a treaty could be formally accepted, provided that an existing Act of Parliament implementing the treaty has already been put in place through the parliamentary legislative process and that the Act has also been entered into force when the treaty has come into force for the state.

In addition to the interpretative resolutions, international shipping standards that have become customary international law, such as those of SOLAS and MARPOL, could not prevail over national legislation since the constitution does not accept customary international law as national laws.[32] The Thai law enforcement authorities have been reluctant to enforce international standards to which Thailand has

[31] Kittichaisaree (n 28), at p. 174

[32] The (Thai) Supreme Court Judgment No.4941 of 1967 ruled that the Constitution prevails the Universal Declaration of Human Rights. See Kittichaisaree (n 28), at p. 181. See also Jumpot Saisunthorn, *Treaties Requiring Parliamentary Approval* (The Office of the Constitutional Court 2009) (Thai language)

become a party unless they have been incorporated into an Act. For example, the Thai authorities have asked for the enactment of an Act of Parliament on the contiguous zone by virtue of Article 24 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone, despite the fact that the treaty was reaffirmed in the Royal Proclamation of April 1969 that Thailand is party to the 1958 Geneva Conventions on the Law of the Sea.[33] The international shipping standards, which have not been incorporated into the Thai legal framework, therefore might not be domestically enforced. Notwithstanding, some authors, such as Kittichaisaree, observed that treaties and soft laws may be taken into consideration in Thai courts as factual evidence.[34] These constitutional practices reflect that the state must incorporate all international shipping standards, in any form, into the national legal framework. In other words, the state should maintain and strengthen its technical capacity to implement the international standards, especially those amended by the tacit acceptance procedure.

In practice, a treaty has to be transposed into a national legal framework prior to parliamentary approval.[35] If there is an existing Act of Parliament that already confers the power on responsible agencies to incorporate international standards into their subordinate legislation, the Cabinet would be the decision-maker with regard to the acceptance of the treaty. Even if the acceptance of some IMO treaties may not have explicitly received parliamentary approval, the Parliament may implicitly approve the treaties through the law-making process, as illustrated in ***Figure 4***. In this case, the MD should take national policy and strategies into consideration before proposing the acceptance of any treaty. However, maritime safety and marine pollution prevention had roughly been recognised by the Thai maritime policy and strategies, as they did not specifically emphasise the implementation of IMO treaties and the improvement of national laws and regulations in line with the international legal framework. Until 2020, the government agencies had not been legally required to conduct a regulatory review in order to ensure that the national legislation was in line with treaties to

[33] Kittichaisaree (n 28), at p. 179.
[34] Kittichaisaree (n 28), at p. 183.
[35] Thai Constitution 2017, Section 77

which Thailand has been a party.[36] Besides, the national policies had not provided guidance on the national directions for the acceptance of international shipping standards since maritime safety and marine environmental protection had not been prioritised, especially those relating to international maritime transport. Consequently, the acceptance of treaties had long been preliminarily decided by the MD, of which the criteria for determining and proposing to accept a treaty might not legitimately represent the national acceptance of the treaties[37], although the decision to accept a treaty would be finalised by the Cabinet.[38] The Cabinet's approval for acceptance of a treaty may be implicitly agreed upon by domestic stakeholders through the legislative process, as it provides opportunities for relevant stakeholders to engage in the regulatory impact assessment process. However, this public consultation does not specifically focus on the acceptance of international shipping standards but rather centres on the impact of the legislation on relevant stakeholders. Consequently, if a treaty is ratified with the Cabinet's approval, neglecting domestic interests, it may undermine the treaty's legitimacy. This concern is particularly relevant for the implementation of tacitly accepted amendments to the treaty since amendments to treaties will be transposed into domestic acts by the MD, in its capacity, without parliamentary scrutiny. The lack of national consultation with domestic stakeholders during treaty negotiations and before amendments come into force may also undermine the legitimacy of such amendments. Furthermore, domestic shipping industries might not even acknowledge the parent treaty and its amendments.

Although IMO treaties give opportunities to object to an amendment of IMO treaties or delay their entry into force for a period, these opportunities have never been taken by Thailand. Notably, technical capacity for implementation might not even be considered by the Cabinet and relevant competent agencies, especially regarding new standards established through the tacit acceptance procedure. This lack of

[36] The regulatory review has been given priority since 2020, as illustrated in the 2020 Strategic Plan.
[37] Although the acceptance of a treaty normally requires approval by the Parliament, in practice, government agencies would preliminarily make a decision to accept a treaty before proposing it to the Parliament as a formal procedure and justifying the requirement of the Constitution.
[38] In some cases, the Cabinet may consult the private sector, particularly shipowners, before making a decision to accept a treaty.

technical capacity for implementing future amendments could cause delays in transposing amendments to international standards.

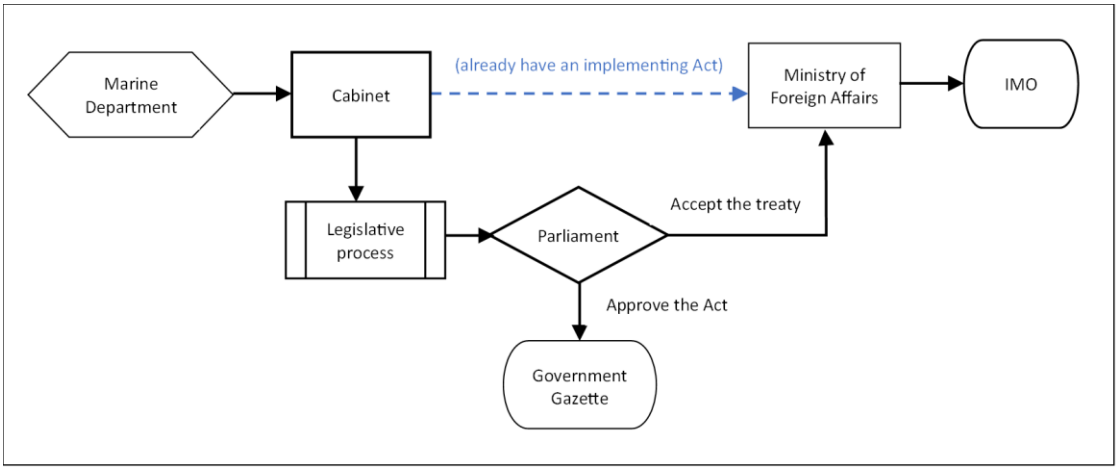

Figure 4 Ratification process

(2) The legislative process and the law-making practice

As shown in ***Figure 5***, the Constitution is the overarching framework for national legislation, including Acts of Parliament and subordinate legislation, particularly regulations prescribed by the Minister, or the Director of a government agency as empowered by the Acts.

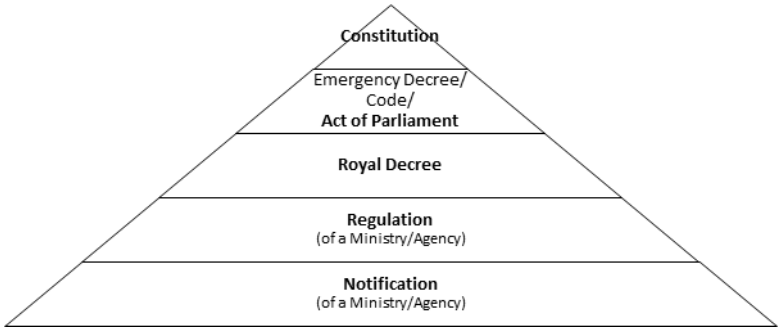

Figure 5 Hierarchy of Laws

The most important legislation for the implementation of IMO treaties is the Act of Parliament, which is the primary legislation as it empowers government agencies to enforce treaties on individuals, especially shipowners, port owners, and/or operators. Subordinate legislation is also an important form of legislation that regulates detailed shipping standards. However, the differentiation between the legislative process for promulgating an Act of Parliament and that for subordinate legislation is necessary to be

investigated to identify the use of each form of legislation as stipulated in the Constitution and to discover what has been used in practice.

(a) Primary legislation

Since 1932, the Thai legislative system has been influenced by the parliamentary system of the United Kingdom.[39] The Parliament is bicameral, consisting of the House of Representatives and the Senate. The enactment of a new Act or amendment of an existing Act relating to maritime safety and marine environmental protection is normally initiated by a competent agency, particularly the MD. By virtue of the 2017 Constitution, as illustrated in ***Figure 6***, the agency shall conduct public consultation with relevant stakeholders, particularly shipowners and port owners or operators, and analyse impacts that may occur from the Act meticulously and systematically.[40] The agency also has to analyse the need to have subordinate legislation and the plan for enacting subordinate legislation, including the time frame and the abstract of the legislation, and present them together with the draft Act to the Cabinet for approval.[41] Following the Cabinet's approval, the Council of State, responsible for legal drafting at the Prime Minister's behest or upon a resolution of the Council of Ministers, would be tasked with preparing the draft Act in collaboration with the relevant agency. Additionally, the Council of State would provide its opinion on the necessity for new legislation, amendments, or repeals of existing laws.[42] The draft act will then be submitted to the House of Representatives and the Senate, respectively. Once an act is approved by Parliament, it will finally be transferred to the Prime Minister, who must present it to the King for signature. Finally, the Act is

[39] Chanchai Boonyawan and Apirach Phetsiri, 'Legislative Process of Thailand: An Historical Perspective', *Legislative Process in Thailand* (Institute of Developing Economies Japan External Trade Organization 2011), at p. 76-77

[40] Thai Constitution 2017, section 77. It is also worthwhile to note that, in addition to the Cabinet, Article 133 of the Constitution also allows a specified number of Members of the House of Representatives or individuals with voting rights under the Constitution to propose a bill to the parliament for approval.

[41] Royal Decree on the Proposition of Any Matter to and the Meeting of the Cabinet 2005, section 4(2). See also Legal Drafting and the Effectiveness of the Legislation Act 2019, section 5; Office of the Prime Minister, Letter No. 0503/Wor 133 The making of subordinate legislation, the plan for making the subordinate legislation, and the acceleration of proposing the legislation or improving significant legislation (21 April 2016) (Thai language); Office of the Prime Minister, *Letter No. 0503/Wor 46 The proposition of the plan for making subordinate legislation, the abstract of the subordinate legislation, and the time frame for making subordinate legislation* (26 January 2017) (Thai language)

[42] Council of State Act 1979, Section 7

published in the Government Gazette, which specifies the date of its entry into force. The enactment of an Act of Parliament therefore requires a lengthy period for parliamentary approval. For instance, the promulgation of the Navigation in Thai Waters Act 1997 (No.15) (NWA 1997), which amended two sections of the NWA 1913 relating to the definition of "Thai waters" and the duty to report port entry, took almost a year to complete its parliamentary passage after the draft Act was submitted to the Cabinet by the agency.[43]

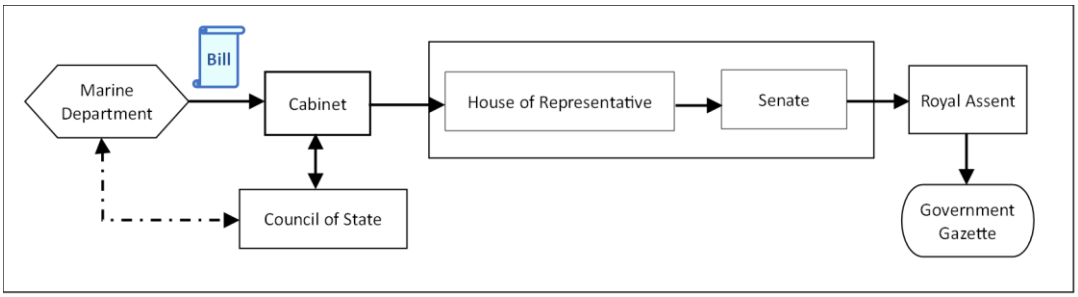

Figure 6 The primary law-making process

(b) Secondary legislation

Unlike an Act of Parliament, subordinate legislation derives its authority from enabling legislation like an Act of Parliament. Examples include ministerial regulations and notifications and rules and regulations of the MD. This type of legislation typically enacted by competent agencies without undergoing parliamentary scrutiny. Given the quicker timeframe, subordinate legislation, particularly rules and regulations prescribed by government agencies, is appropriate for regulating dynamic activities that are regularly changed since competent agencies have legislative power to make delegated laws by virtue of an Act of Parliament to prescribe the legislation.

Unlike regulations, where a competent agency such as the MD is delegated legislative power by an Act to prescribe detailed standards or practices without prior approval or

[43] The draft of the Navigation in Thai Waters Act 1997 was approved by the cabinet on 28 January 1997 and later approved by the parliament and published in the government gazette on 16 November 1997. See The Secretariat of the Cabinet, 'Cabinet's Resolutions' <https://cabinet.soc.go.th/soc/Program2-3.jsp?top_serl=122973&key_word=%A1%D2%C3%E0%B4%D4%B9%E0%C3%D7%CD&owner_dep=&meet_date_dd=&meet_date_mm=&meet_date_yyyy=&doc_id1=&doc_id2=&meet_date_dd2=&meet_date_mm2=&meet_date_yyyy2=> accessed 8 February 2021; The Royal Thai Government Gazette, 'Navigation in Thai Waters Act 1997' <http://www.ratchakitcha.soc.go.th/DATA/PDF/2540/A/072/18.PDF> accessed 8 February 2021.

any scrutiny by an executive body[44], Acts such as NWA 1913 also delegate legislative authority to the Minister of Transport to enact ministerial regulations. These regulations must be considered and approved by the Council of State and the Cabinet, respectively. This form of legislation typically sets forth criteria, guidelines, and conditions for implementing domestic regulatory standards by virtue of the Act.[45] However, this legislative process takes longer than enacting MD regulations, as it allows the executive body to consider the regulatory context of the ministerial regulations carefully. In other words, ministerial regulations may be more suitable for matters that could affect public administration and require decision-making from an executive body. There are only some ministerial regulations prescribed by government agencies by virtue of the Act of Parliament that are exempt from the cabinet's approval, such as those relating to forms of permit, the prolongation of a permit, the criteria for giving a permit, and administrative fees.[46] In addition to ministerial regulation, ministerial notification is another form of subordinate legislation. This form of legislation is enacted by the Ministry of Transport without prior approval from the Cabinet to inform the public or specific subjects about particular matters.[47]

Since the enactment of a new act or an existing act requires a considerable amount of time for the parliamentary process, subordinate legislation is likely to be the most appropriate form for incorporating technical regulations that are regularly developed. However, the incorporation of international standards into national laws also requires not only a comprehensive understanding of the international legal framework relating to maritime safety and marine pollution prevention and the substantive context of treaties, but also the use of appropriate law-making techniques for incorporating provisions and technical regulations of the treaties into appropriate national legal instruments. As Thailand has been a party to the UNCLOS, which is the respective

[44] Certain regulations that have legal effects on the public administration are subject to the Cabinet's approval. See The Royal Decree on the Proposition of Any Matter to and the Meeting of the Cabinet 2005 (25 March 2005) (Thai language), Section 4(6)

[45] The Secretariat of the House of the Representatives, *Manual for Legal Drafting* (2018 Edition), at p. 45-46 (Thai language)

[46] Royal Decree (n 44), Section 4(6). See also Office of the Prime Minister, Letter No. 0503/Wor 45 The draft ministerial regulations relating to the significant policies provided by the cabinet in accordance with section 4 of the Royal Decree on the Proposition of Any Matter to and the Meeting of the Cabinet 2005 (25 March 2005) (Thai language).

[47] See the Manual for Legal Drafting (n 45), at p. 46.

overarching international legal framework, since 2011[48], Thailand has had to implement the provisions of the UNCLOS and regulatory standards developed by the IMO through the rules of reference, as discussed in Chapter 2. IMO's international shipping standards must also be taken into account when they are incorporated into Thai law. This includes the UNCLO's rules of reference and functional jurisdictions.

(3) Challenges in the transposition of international shipping standards into the Thai legal framework in practice

In Thailand, the main primary laws relating to maritime safety and ship-source pollution prevention are the NWA 1913, TVA 1938, and PCA 1979, all of which implement major IMO treaties. The NWA 1913 regulates shipping activities in Thai waters, including territorial seas and contiguous zones, by implementing SOLAS, Annex I, II, and V of MARPOL, Load Lines, TONNAGE, and STCW,[49] while the TVA 1938 mainly regulates the registration of ships and some standards relating to pollution prevention from Thai ships, particularly MARPOL. The PCA 1979 governs national shipping standards in line with COLREG. Notably, most international shipping standards have been transposed into the NWA 1913.[50]

Building on the previous discussion, Thailand, utilises the III Code to assess its national implementation of major IMO treaties, including COLREG, SOLAS, Load Lines, TONNAGE, and Annex I and II of MARPOL. The evaluation revealed that Thailand has yet to fully implemented the international standards required by these treaties.[51] In 2017, the Cabinet approved the draft amendment of the NWA 1913 incorporating regulatory standards in major IMO treaties, particularly SOLAS and Annex I and II of MARPOL,[52] but

[48] United Nations, *C.N.297.1982.TREATIES-1 (Depository Notification): Status of the Convention and of the Final Act of the Third United Nations Conference on the Law of the Sea as of 10 December 1982*, (1982)

[49] In early 2023, the NWA 1913 has been amended to incorporate international standards under Annex of MARPOL into the Act and clearly specify the applicability of the incorporated standards to Thai ships regardless of where the violation occurs.

[50] Since the NWA 1913 was established, the Act, particularly provisions relating to shipping standards, has been amended several times and integrated into the NWA 1913.

[51] See section 5.2.1 above.

[52] The cabinet also recognised the need to ensure that the Act could incorporate IMO treaties, which Thailand may accept in the future. See the Cabinet Resolution on the draft Emergency Decree on Thai Vessels and the draft Emergency Decree on Navigation in Thai Waters (23 May 2017) (Thai language); The Secretariat of the Cabinet, < https://resolution.soc.go.th/?prep_id=324299> accessed 5 October 2020.

the draft has been considered by the Council of State, meaning that it has not yet been submitted to the parliament until the present. Obviously, the amendment of the NWA 1913 has taken no less than five years to incorporate numerous international shipping standards into the Act. The delay in the legislative process is not only caused by the lengthy period of the primary law-making process but also by technical challenges in the incorporation of IMO treaties into the relevant Acts of Parliament. The challenges are as follows:

The first and foremost problem is the direct incorporation of technical standards into the main provisions of the primary law. For instance, the incorporation of the international shipping standards relating to the discharge of garbage from ships under Annex V of MARPOL into the Act.[53] Section 120/7, which is newly added to the Act, explicitly prohibits the discharge of garbage into the sea outside the special areas, except for specific substances adhering to the outlined criteria in this section. It is evident that this section incorporates regulations 3 and 4 of Annex V of MARPOL on the prohibition of discharging garbage into the sea in general and the sea outside the special areas except for the discharge of some substances, which have undergone multiple amendments through the tacit acceptance procedure since the treaty's establishment in 1973.[54] The transposition of these constantly changing technical standards could cause possible delays in implementing them into the Act since the enactment of this main provision is under the time-consuming parliamentary law-making process.

Secondly, the poor organisation of the framework's structure for facilitating the transposition of international standards into primary laws, as well as the lack of coherence within primary laws, leads to the existence of multiple legal bases for incorporating international standards into the national legal framework. As a consequence, this situation could contribute to inconsistent implementation since legal drafters might face challenges in determining the appropriate legal basis for

[53] The NWA 1913 was amended by the Navigation in Thai Waters Act (No.18) 2023.

[54] See, e.g., International Maritime Organization, Resolution MEPC.89(45) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (2000); International Maritime Organization, Resolution MEPC.201(62) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (2011); and International Maritime Organization, Resolution MEPC.277(70) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (2016).

incorporating international standards into the Act, especially when multiple options are available.

Notably, there are at least three primary laws, which are the NWA 1913, TVA 1938, and PCA 1979, involved in the incorporation of international shipping standards into the Thai legal framework. Among these laws, NWA 1913 and TVA 1938 regulate the discharge of substances from ships into the seas through various provisions, aiming to align with international standards under Annex I, II, and V, to which Thailand is and intends to become a party. For instance, Sections 119 and 119 bis of the NWA 1913 prohibit any person from discharging substances and sewage that could pollute the territorial seas, unless permitted, while also entirely prohibiting the discharge of oil, chemical substances, or any substance harmful to the marine environment and navigation in the territorial seas. These provisions apply not only to the exercise of coastal state jurisdiction but also to Thai ships violating the laws within the territorial sea. In addition to these provisions, the NWA 1913, through provisions on the discharge of garbage into the seas[55], also regulates the discharge of substances considered "garbage," which might be harmful to the marine environment, from Thai ships into the seas, regardless of where the violation occurs. Additionally, provisions on ship survey and certification within the NWA 1913 also incorporate international standards through the MD's regulations on ship survey. For example, Section 163/1 of the NWA 1913 incorporates the international standards of Annex V of MARPOL into the 2016 Ship Survey Regulations on Rules, Criteria, and Conditions for the Survey of Ships for the Prevention of Pollution from Garbage. However, these survey regulations differ slightly from Sections 120/2-120/50 of the NWA 1913, which also regulate the discharge of garbage into the seas. Furthermore, the TVA 1938 also addresses the discharge of harmful substances from Thai ships into the seas, irrespective of the location of the violation. Without the clarification of "substances" and specific chapters regulating each substance in accordance with the Annexes of MARPOL, international standards concerning the discharge of different categorised substances

[55] These provisions have been added to the NWA 1913 in early 2023 to implement Annex V of MARPOL, to which Thailand intends to be a party. See the explanation note attached to the Navigation in Thai Waters Act (No.18) 2023, which amends the NWA 1913 and Cabinet Resolution (Thai language).

under MARPOL might be inappropriately incorporated into these provisions or even inconsistently integrated into multiple provisions.

It is also worthwhile noting that, in addition to the absence of a regulatory structure facilitating the incorporation of international standards into the primary laws, the lack of clear terminologies and a defined scope of application for substances governed by each provision can also result in the incorporation of certain international shipping standards related to the operational discharge of substances under MARPOL into multiple provisions. As a consequence, this leads to varying regulations on the discharge of substances from ships into the sea. One notable example of this inconsistency implementation is the transposition of Annex V of MARPOL into the legal framework as discussed above.

Thirdly, the use of an unsuitable legal basis for incorporating international standards into the primary law can complicate the legal framework and create confusion for both legal drafters and the shipping industries subject to the law. For instance, the standards of practices for ship surveys and issuance of international certificates and international standards of the ships, including hull, equipment, appliances, and pollution prevention standards under IMO treaties, have been incorporated into the Act through sections 163 and 163/1 on ship surveys and issuance of international certificates. These provisions, despite delegating legislative power to secondary legislation and bypassing the parliamentary law-making process, are not suitable for incorporating international shipping standards into the Act since they are rather provisions on flag state enforcement. The incorporation of shipping standards into these enforcement provisions can cause confusion among legal drafters when determining the appropriate legal basis and confusion among the shipping industries regarding the implementation of the standards, especially when multiple legal bases are available. Furthermore, these limitations restrict the state's enforcement capabilities to Thai ships solely through surveys and certificate issuance, as mandated by the Act. This confines enforcement mechanisms to ship surveys, hindering the implementation of other measures like random inspections and potential penalties.[56]

[56] For details and discussion of flag state enforcement, including the ship survey, see the discussion in the following chapter.

Fourthly, there is also the delay in the transposition of international shipping standards into NWA 1913. Despite the delegation of legislative power to competent agencies, including the MD and Minister of Transport, through provisions like Section 163/1 of NWA 1913, the state identified a backlog of international standards, including the Codes of SOLAS 1974, awaiting full transposition into the legal framework. This lag was attributed to technical difficulties faced by the maritime administration.[57] These Codes include the IMDG Code, the Noise levels on-board ships (NOISE Code), Intact Stability (IS) Code, Fire Safety System (FSS) Code, Fire Test Procedures Code (FTP) Code, Life-Saving Appliance (LSA) Code, International Maritime Solid Bulk Cargoes (IMSBC) Code and International Grain Code and other Codes under SOLAS. Hence, the delegation of legislative power alone is not sufficient for ensuring that the state will be able to incorporate international standards, particularly those amended by the tacit acceptance procedure, into the primary law in time.

Fifthly, Thailand has never objected to any amendments of IMO treaties, especially the amendment of technical regulations by tacit acceptance procedure, and has never requested the delay of the entry into force of the amendments as being allowed by the treaties, despite the fact that many amendments of IMO treaties have not yet been incorporated into domestic legislation. This reflects that the silence on the objection to the amendments and the request for delaying the entry into force of the amendments do not actually indicate the acceptance of the country, thereby undermining the legitimacy of the amendment.

Last but not least, the lack of technical capacity for the transposition of international shipping standards into the national legal framework is also a significant challenge for Thailand. The poor technical capacity of the national maritime administration also causes Thailand difficulties in incorporating international standards into its national legal framework. The challenges include the technical understanding of officials in the development of the international legal framework for maritime shipping and the law-making techniques, the translation of international standards into Thai and the regulatory review. The investigation in the previous section also reveals that the

[57] This problem was found in 2016 after Thailand evaluated its treaty performance. See details in Section 5.2.1 and Note 3 above.

particular capacities might be the major challenges of developing countries for the implementation of IMO treaties. These capacities are the knowledge of the overview framework of international shipping standards and individual conventions, the capacity to establish appropriate primary law to enable the incorporation of regularly adopted international shipping standards into the national legal framework, and the capacity to identify the appropriate legal instruments and use appropriate law-making strategies for the incorporation of treaties.

In 2007, the IMO and Thailand recognised that "[t]he government authorities involved in the legislation process lack a clear understanding of the contents and technical requirements of the mandatory IMO instruments." This difficulty has remained until the present.[58] Evidently, the technical incapacities of Thailand are considerably caused by "[the] lack [of] clear understanding of contents and technical requirements" of IMO treaties, which make the international legal framework complicated, particularly the overlapping areas covered by international standards.[59] The amendment of the NWA 1913 to fully implement the IMO treaties to which Thailand has been a party has taken years.[60] The protracted legislative process was partly attributed to the technical limitations of officials tasked with legal drafting and regulatory enforcement. Specifically, their capacity to grasp the broader context of the international legal framework, including interconnectedness between major IMO treaties, NWA 1913, and TVA 1938, was inadequate for efficient implementation of IMO treaties.[61] These situations show that the international shipping standards regularly developed by the IMO could not be universally implemented unless states have sufficient capacities. In addition to the qualitative incapacity, the quantitative capacity of the maritime administration and the development of human resources are also inadequate. The lack of technical experts for implementing IMO treaties through domestic legislation has also been a

[58] International Maritime Organization, *ASR No.49196 Audit Summary Report* (2007), at p. 13.
[59] Kiriaki Mitroussi, 'Quality in shipping: IMO's role and problems of implementation' (2004) 13 Disaster Prevention and Management 50, at p. 56
[60] See Note 49 above.
[61] The Thai Vessel Act generally regulates ship registration; however, some provisions also regulate the dumping or discharging activities of Thai vessels. On the other hand, the NWA 1913 regulates other shipping standards by giving power to the MD to enforce the legislation as the flag, port, and coastal state. See TVA 1938, Section 53/1.

challenge for many countries, including developed countries such as Canada, France, and Germany.[62]

5.3 Strategies to overcome challenges in the transposition of international shipping standards into national legal framework and the good practice from the UK

The challenges of Thailand and some other countries show the practical barriers to transposing international shipping standards into a domestic legal framework. These challenges are mainly related to the interaction between international treaties and the domestic legal framework, while others relate to administrative performance and capacity building. Therefore, it is necessary for states, especially Thailand, to have strategies for conquering these two main challenges.

5.3.1 Addressing law-making challenges

In the previous sections, it was found that the national legislation of some states may be rigid, despite the fact that it needs to be systematically and regularly developed by taking into consideration the constantly evolving international legal framework. In order to address this challenge, some states may have to restructure their national legal frameworks to align with the international legal framework to allow for the direct reference of the international shipping standards in the national legislation as suggested by the IMO[63] or, at least, use flexible forms of national legislation to enable the incorporation of international shipping standards, particularly amendments to the international standards, in a timely manner. It is also worthwhile to note that the International Civil Aviation Organization (ICAO) also suggested that state parties to the Chicago Convention 1944 promulgate primary laws that enable delegated legislation to incorporate international standards into national legal framework.[64] To provide law-making strategies for enabling effective transposition of international shipping standards into the national legal framework, this section will first explore the good practices of the UK as one of the leading maritime states that have played

[62] IMO (ASR No.49196) (n 58), at p. 6, 9. See also International Maritime Organization, *ASR No.53012 Audit Summary Report* (2007), at p. 4-5; International Maritime Organization, *ASR No.76660 Audit Summary Report* (2009), at p. 8; and International Maritime Organization, *ASR No.42818 Audit Summary Report* (2007), at p. 5.
[63] IMO (ASR No.39642) (n 13), at para.117, 417
[64] ICAO (Safety Report) (n 16), at p. 10

a significant role in the development of international shipping standards to discover its law-making techniques and then offer the law-making strategies in the context of maritime shipping law to Thailand and other countries.

(1) The UK's practice

Undoubtedly, the UK has long been one of the major maritime states and has monumentally contributed to the development of international shipping standards by initiating and engaging in the development of international shipping standards. For example, in the nineteenth century, the UK developed the rules of navigation with respect to the prevention of collisions at sea, which were later generally accepted by many maritime states and later recognised by the US Supreme Court in the *Scotia* case as part of the law of the sea.[65] The UK continues to be an active member of the IMO, and it plays a leading role in the development of modern shipping standards.[66]

Similar to Thailand, the UK is a dualist state in which the legal effect of treaties requires the incorporation of international agreements into domestic legislation through parliamentary legislation.[67] The practice of the UK in the transposition of international shipping standards into a domestic legal framework, particularly the legal structure and law-making strategies of UK maritime legislation and legal drafting techniques, could therefore provide a good example for Thailand and other developing states.

Although the UK Government has the prerogative power to negotiate and ratify a treaty,[68] under reforms adopted in 2010, the UK Parliament has the statutory power to disapprove a treaty subject to ratification.[69] According to the constitutional

[65] Regulations for Prevention of Collisions at Sea were established by virtue of the Merchant Shipping Amendment Act 1862. These regulations had also been generally recognised as the "Rule of Road at Sea" by the majority of maritime states. See *The Scotia* (1871) 81 U.S., at p. 170. See also Reginald G. Marsden, 'The Regulations for Preventing Collisions', in *A Treatise on the Law of Collisions at Sea* (Stevens and Sons 1880), at p. 133-135.

[66] Alan Boyle and James Harrison, 'British Contributions to the Law of the Sea and the Protection of the Marine Environment, including its Natural Resources' (2023) British Yearbook of International Law 1, at p.3, 7-8

[67] Arabella Lang, *Briefing Paper: Parliament's role in ratifying treaties* (House of Commons Library 2017), at p. 6-7

[68] Ibid., at p. 3, 5

[69] Constitutional Reform and Governance Act 2010, Section 20(1)(c)

practice of the UK, the government has to ensure that implementing legislation is already in place before ratifying a treaty. This will often require some sort of legislative act. The Parliament, which includes the House of Commons and the House of Lords, has the legislative power to enact primary legislation to implement a treaty. However, as the primary-law making procedure consists of multiple stages, as shown in ***Figure 7***[70], which is time-consuming[71], in practice, the Parliament has often delegated legislative power to executive bodies to enact subordinate legislation to give legal effect to international treaties. This is particularly the case for the implementation of IMO treaties.

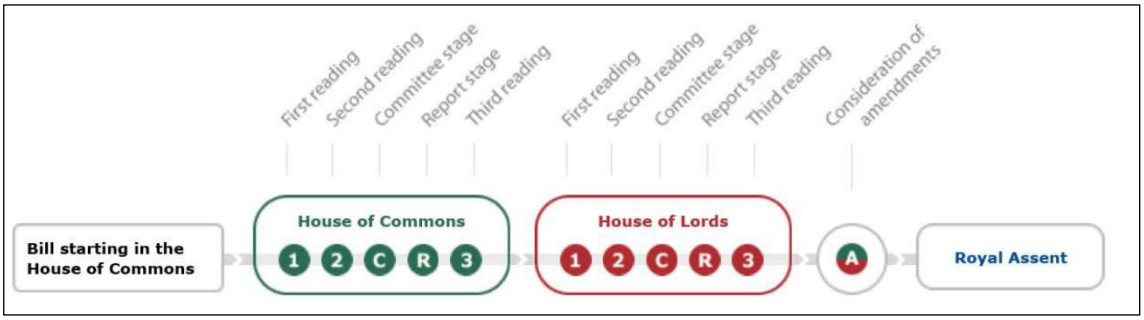

Figure 7 The overview of UK primary law-making procedure

The UK has employed several law-making techniques to incorporate international shipping standards into its domestic legal framework in line with the development of IMO treaties, as follows:

(a) Primary legislation

UK shipping standards have been promulgated in the Merchant Shipping Act 1995 (MSA 1995).[72] The MSA 1995 is divided into many parts based on the objectives of the regulatory standards, such as those relating to maritime safety, pollution prevention, and enforcement power. This organisational structure could facilitate legal drafters and enforcement personnel to amend and enforce the Act and ensure the understanding of the shipping industry. While incorporating all shipping

[70] UK Parliament, 'The Legislative process' <https://publications.parliament.uk/pa/cm201719/cmselect/cmniaf/2070/207005.htm#footnote-107> accessed 20 June 2023

[71] Ibid. Generally, the legislative process can take from weeks to months, depending on the length of the bill (draft legislation), its complexity, and the public interest in the legislation.

[72] The MSA 1995 was the consolidated act. See the introductory section of the act.

standards into a single Act makes the UK legal framework more complex, this legislative approach helps avoid fragmentation and the risk of internal incoherence in the national legal framework. Moreover, the application of this complicated framework has also been facilitated by the clear scope of application and related terminologies in each part of the Act as necessary. The MSA 1995 also leaves specific terminology and scope of application relating to shipping standards to relevant statutory instruments (SIs), which are subordinate legislation, particularly orders in council and regulations. Although this method might cause SIs to be complicated, it could ensure that the shipping standards would be applied appropriately and avoid the conflicting application of the standards relating to different subject matters.

(b) The delegation of legislative power

While retaining the core enforcement powers, as discussed in the following chapter, the MSA 1995 also delegates legislative power to competent authorities to incorporate international shipping standards into secondary legislation.[73] The MSA 1995 explicitly delegates subordinate law-making power to the Monarch upon the advice of the Privy Council to make an Order in Council to give legal effect to a treaty relating to pollution prevention and an agreement modifying the treaty.[74] The Order of Council, which is enacted only to give legal effect to a treaty or an agreement that modifies the treaty, would not be scrutinised by the Parliament before being submitted to the Monarch for enactment, but it is still subject to revocation by the Parliament.[75] This delegation of power has been clearly given to the Monarch to give national legal effect to treaties relating to the prevention of pollution. The MSA 1995 expressly lists a number of IMO treaties, such as Annex I and II of MARPOL,[76] to which the Monarch could make an Order in Council to make them domestically binding. For example, after the UK ratified MARPOL in 1980, the Monarch passed the Merchant Shipping (Prevention Pollution) Order 1983/1106 by virtue of Section 128(1)(a) to give national effect to the treaty when it came into force in the UK in 1983. The MSA 1995 also allows the Monarch to make an Order in Council giving legal effect to other

[73] MSA 1995, Section 85(1), (1B), 128(1)
[74] MSA 1995, Section 128(1)
[75] MSA 1995, Section 128(8)(b), (9). However, it is still subject to revocation by the Parliament.
[76] MSA 1995, Section 128(1)(a)

treaties relating to "prevention, reduction or control of pollution of the sea" and an agreement modifying the treaties.[77] This broad power introduces some flexibility for the use of delegated legislation. For instance, by virtue of Section 128(1)(e) of the MSA 1995, the Monarch enacted the Merchant Shipping (Control and Pollution) (SOLAS) 1998 (SI 1998/1500) to give legal effect to the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974, to which the UK has been a party since 1981.

At the same time, the MSA 1995 does not enable the implementation of all treaties relating to pollution prevention through subordinate legislation since the Act allows the Monarch to give legal effect to only treaties relating to "prevention of pollution of the sea".[78] This limit means that some environmental treaties promulgated by the IMO may not fall within the scope of its power. For example, the MSA 1995 had to be amended by inserting Section 128(1)(da) of the MSA 1995 to give effect to Annex VI of MARPOL 1973/1978, which relates to air pollution from ships, not pollution of the sea.

Importantly, the MSA 1995 also delegates subordinate law-making power to the Monarch, upon advice of the Privy Council, to make an Order in Council in order to delegate the legislative power to the Secretary of State to enact SIs such as regulations, rules, and orders for implementing treaties relating to the prevention of pollution of the sea.[79] Therefore, the Monarch could make an order in council to give effect to international treaties and also delegate the power to competent authorities to incorporate the international standards into SIs. In practice, the state made an order to legally activate the treaties in the UK while delegating legislative power (including the power to prescribe enforcement power) to subordinate legislation.[80]

[77] MSA 1995, Section 128(1)(e)
[78] Ibid.
[79] MSA 1995, Section 128(3), (4)(d)
[80] See, e.g., The Merchant Shipping (Control of Harmful Anti-Fouling Systems on Ships) Order 2022, Reg.3-4; The Merchant Shipping (Control of Pollution) (SOLAS) Order 1998, Reg.2; The Merchant Shipping (Prevention of Pollution by Sewage and Garbage) Order 2006, Reg.3-5; The Merchant Shipping (Prevention of Air Pollution from Ships) Order 2006, Reg.2-3; The Merchant Shipping (Control and Management of Ships' Ballast Water and Sediments) Order 2022, Reg.3-4.

This method has also been applied to the incorporation of international shipping standards relating to maritime safety, although the MSA 1995 does not explicitly require any competent authority to make an SI to give legal effect to any treaties. Section 85(1B) of the MSA 1995 implicitly reflects that the UK also implements international shipping standards relating to maritime safety. Although the UK has not met certain criteria for delegating power, the state has given priority to the need for an immediate response to global issues through SIs.[81] By bypassing parliamentary approval, the UK could incorporate and enforce international standards in a timely manner. However, the MSA 1995 requires the competent authorities to lay the SIs prescribed by virtue of the MSA 1995 before Parliament for consideration. This process allows the Parliament to scrutinise the execution of legislative power by the executive bodies and enables the Parliament to annul the SIs. This illustrates that the SIs would also be scrutinised by the parliament through the negative process to ensure the accountability of the government in exercising its legislative power.[82]

Unlike those relating to marine pollution prevention, treaties relating to maritime safety could be directly implemented through SIs, particularly regulations, by virtue of Section 85(1) and (3) of the MSA 1995.[83] As Section 85(1B) of the MSA 1995 explicitly requires the safety standards of foreign ships at the same level as the treaties ratified by the UK, this implicitly reflects that the UK also implements international shipping standards relating to maritime safety through SIs, particularly regulations.[84] By this method, the UK might be able to incorporate international standards relating to maritime safety into the MSA 1995 within a shorter period than those relating to marine pollution prevention. Yet, in any case, the UK's shipping regime has been made to provide flexibility for the implementation of international shipping standards.

[81] The Delegated Powers and Regulatory Reform Committee, *Special Report: Quality of Delegates Powers Memoranda*, (2014), at para. 21. See also The Delegated Powers and Regulatory Reform Committee, *European Union (Approvals) Bill, Finance Bill, Northern Ireland Budget Bill, Sanctions and Anti-Money Laundering Bill [HL]*, (2017), at para. 16.

[82] MSA 1995, Section 306. See also Jack Simson Caird and Ellis Patterson, *Brexit, Delegated Powers and Delegated Legislation: a Rule of Law Analysis of Parliamentary Scrutiny* (2020), at p. 9, 11.

[83] MSA 1995, Section 85

[84] This might be because the need to ensure the safety of human life at sea cannot be await.

(c) The direct reference approaches

Despite the incorporation of treaties relating to maritime safety and marine pollution prevention through regulations and orders in council, the UK has also historically struggled with the delay in implementing international shipping standards developed and adopted by the IMO, particularly given the frequency of changes to these instruments. To address this challenge, the UK has developed two so-called "direct reference" approaches in order to simplify the implementation of international standards.

The first direct reference approach that has been used by the UK is static direct reference, which is one of the drafting techniques for incorporating certain standards into the legislation at a particular time.[85] The UK has employed this approach through delegated legislation. Many SIs refer to specific international shipping standards adopted by the IMO within a certain period. For example, regulation 31 of the Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulations 2004 (Prevention of Oil Pollution Regulations 2004)[86] entered into force in March 2004, directly referencing Regulation 13E(2) of Annex I of MARPOL 1973/1978 [87] as amended by the IMO "up to 11th October 2002."[88] However, this Regulation was later amended by the IMO in 2004, and the amendment came into force in 2007.[89] Evidently, the UK has amended the Regulations on Prevention of Oil Pollution, including Regulation 31, several times since then. [90] The UK also applied this

[85] John Mark Keyes, 'Incorporation by Reference in Legislation' (2004) 25 Statute Law Review 180, at p. 183

[86] Regulation 5 revised Regulations 1 and 31 of the Merchant Shipping (Prevention of Oil Pollution) Regulations 1996 by defining the new term "L" in the Prevention of Oil Pollution Regulations 2004, referring to Regulation 13E(2) of Annex I of MARPOL 1973/1978 as amended until 2002, and specifying new standards, including the "L" in Regulation 31(6)(b)(i).

[87] Regulation 13E(2) of Annex I of MARPOL 1973/1978 was originally established by the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973.

[88] Regulation 1 of the Prevention of Oil Pollution Regulations 2004 also changed the term "convention" which previously referred to Annex I of MARPOL 1973/1973 as amended until 1994, to Annex I of MARPOL 1973/1973 as amended until 2002.

[89] International Maritime Organization, *Resolution MEPC.117(52) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973*, (2004)

[90] The Prevention of Oil Pollution Regulations 2004 were amended in 2005, 2009, 2014, and 2019. Particularly, Regulation 31 was amended in 2005, and later in 2019, the whole Regulation was repealed and replaced. See The Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulations 2005, Reg.3; The Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulations 2019.

technique to incorporate soft laws established by the IMO into its domestic legal framework. For instance, Regulation 33 of the Merchant Shipping (Prevention of Oil Pollution) Regulations 1996 (Prevention of Oil Pollution Regulations 1996), which came into force in 1996, refers to the guidelines established by "Resolution MEPC 54(32)" adopted by the MEPC in 1992.[91] However, this resolution was later amended by the IMO in 2000.[92] Accordingly, the UK had to amend this regulation later in 2004.[93] Obviously, the national standards prescribed by this technique are static and need to be updated following the amendment of IMO treaties.

The regular amendment of IMO treaties therefore challenges the law-making of the UK, as the state might struggle to effectively implement the amendment through the SIs, which includes regulations, orders, and rules in time. It was claimed that, while the "coherent regulatory framework" was absent[94], the multiple revisions of the 1995 Act and its subordinate legislation caused the complexity of the national maritime legislation, which may ultimately confuse government officials and the private sector. The delay in the implementation of IMO instruments also affects the standards of British ships, which could be challenged in foreign ports. In 2015, this problem was explicitly accepted in the explanatory note to Section 106 of the Deregulation Act 2015.[95] Therefore, the UK introduced "ambulatory reference" to the subordinate legislation as a new legal drafting technique for incorporating international standards into the MSA 1995 to ensure that the UK could implement international shipping standards and their amendments in a timely manner.[96] Unlike the static direct reference approach, the dynamic ambulatory reference approach is a legal drafting technique that allows the state to automatically domesticate

[91] International Maritime Organization, *Resolution MEPC.54(32) Guidelines for the Development of Shipboard Oil Pollution Emergency Plans*, (1992)
[92] International Maritime Organization (IMO), *Resolution MEPC.86(44) Amendments to the Guidelines for the Development of Shipboard Oil Pollution Emergency Plans*, (2000)
[93] The Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulations 2004, Reg.6
[94] Maritime and Coastguard Agency, *Merchant Shipping (Ambulatory Reference) (Amendments to MARPOL Annex I regulations): Impact Assessment (final)*, (2019), para. 2.6. See also Maritime & Coastguard Agency, 'Impact Assessment' <https://www.legislation.gov.uk/ukia/2019/26/pdfs/ukia_20190026_en.pdf> accessed on 11 November 2020
[95] Deregulation Act 2015, Explanatory Note, at para.494
[96] Deregulation Act 2015, Section 106. See also Merchant Shipping Act 1995, Section 306A.

international shipping standards as they are amended from time to time.[97] The Deregulation Act 2015 inserted the ambulatory reference provision into the MSA 1995 to allow the executive bodies to enact SIs by directly referring to international shipping standards relating to maritime safety and prevention of pollution of the sea as regularly amended from time to time. The 2015 Act clearly explains the need to introduce the ambulatory reference method to the MSA 1995.[98] The introduction of the ambulatory reference in the MSA 1995 could ensure that the delegated legislative power given to executive bodies would be uniformly employed within a certain scope, as agreed by the parliament. Section 306A of the MSA 1995 explicitly allows a competent authority to use ambulatory references in SIs by directly referencing "international instrument" as being modified or replaced by another instrument from time to time. This section would allow the automatic incorporation of IMO treaties to which the UK has been a party and their amendments into the MSA 1995 without the formal enactment of new SIs. The term "international instrument" could also refer to soft laws such as interpretative resolutions of the IMO. The ambulatory reference approach could therefore ensure that the national shipping standards are efficiently harmonised in line with international standards and facilitate the interpretation and enforcement of competent agencies and the shipping industry.

While this technique offers clear advantages in terms of ensuring timely transposition, caution in using the ambulatory reference approach in subordinate legislation should also be observed. Firstly, states should ensure that they have sufficient executive power to enforce the international instrument, which could regularly be amended by the tacit acceptance procedure. Since international instruments, particularly IMO treaties, generally stipulate international shipping standards, operational standards, and obligations of individuals to ensure and maintain the standards of the ships and also require administrative power to enforce

[97] The UK recognised that numerous international shipping standards had not yet been incorporated into domestic legislation. This approach has also been employed in the Act of Parliament and subordinate legislation by Canada since 2001. See UK Parliament, 'Shipping: Statutory Instruments' <https://questions-statements.parliament.uk/written-questions/detail/2018-04-23/HL7179> accessed 11 November 2020. See, e.g., Navigation Safety Regulations 2020, Reg.2(2). See also Canada Shipping Act 2001, section 32(5).

[98] Deregulation Act 2015, Explanatory Note, para. 493, 495-496.

regulatory standards and exercise enforcement measures, the international instruments may require executive power that exceeds the delegated power given to the SI. Therefore, the ambulatory reference approach may be appropriate for the application of some international standards, particularly dynamic technical standards that have regularly been amended by the IMO.

States should recognise the amendment procedures of international treaties, particularly IMO treaties, and determine the extent to which ambulatory clauses in subordinate legislation apply to amendments made through these procedures. Since an international instrument, including a soft law instrument, can be amended by a resolution of a particular body of international organisation, particularly the MSC, the MEPC, or the Assembly of the IMO, which generally could come into force by the tacit acceptance procedure, or even replaced by a different instrument, such as a protocol to amend a treaty, which is a new agreement requiring explicit acceptance.[99]

Thirdly, the state should actively participate in the negotiation of amendments to treaties and make a national decision on their adoption. This ensures that adopted amendments can be readily implemented through the direct incorporation facilitated by the ambulatory reference approach.

Fourthly, states should also reserve the power to revoke the legal effect of the amended international standards incorporated into national legislation if the state decides to object to the respective amendment of the treaty at or after the adoption of the amendment.

In practice, the UK has increasingly employed ambulatory references in SIs within a certain scope given by the MSA 1995. By virtue of ambulatory references, SIs will not be required to be regularly modified by the formal legislative process following the amendment of IMO treaties. This ensures that the state can timely and fully implement international standards as amended. However, the UK also takes

[99] Some amendments to a treaty that make significant changes to the treaty have been adopted by a new agreement in the form of a protocol. For example, the Protocol 1988 Relating to the International Convention for the Safety of Life at Sea, 1974, the Protocol Relating to the International Convention on Load Lines, 1966, and the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973.

precautions for the use of ambulatory references. The significance of the participation of the UK in the treaty-making process has been recognised by the UK, especially the engagement of domestic stakeholders in the negotiations, to ensure that the UK would agree and could implement the amendment of IMO treaties after they have come into force in the UK.[100] Besides, a House of Parliament, by virtue of the MSA 1995,[101] still retains the legislative power to annul SIs that apply the ambulatory reference. This could also prevent the legal effect of any SI that automatically incorporates any amended international shipping standards to which the UK objects.

The ambulatory references in the SIs are also applied to specific sets of international standards, including relevant operational standards for ships and ports. For example, the Merchant Shipping (Prevention of Pollution by Garbage from Ships) Regulations 2020 (SI No. 2020/621)[102] employs the ambulatory reference. Moreover, this SI also provides clear terminologies with respect to the enforcement of the standards stipulated in this SI. Obviously, SI No. 2020/621 employed the ambulatory reference method when transposing regulatory standards relating to operational discharge of ships in MARPOL and its annexes, the Polar Code, and the IMSBC Code, which are developed under SOLAS as amended from time to time, into the MSA 1995.This SI could also ensure that the international shipping standards would be automatically incorporated into the MSA 1995 as amended or replaced by the amendment method of MARPOL. The clear scope of reference could also prevent the automatic incorporation of international shipping standards replacing those of MARPOL by a protocol to amend the treaty to which the UK has not yet been a party.

In addition to the SI No. 2020/621, several SIs prescribed by virtue of the MSA 1995 also include the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 (SI 2018/68),[103] the Merchant Shipping

[100] Maritime and Coastguard Agency (Impact Assessment) (n 94)
[101] MSA 1995, Section 306(2), (3)
[102] Merchant Shipping (Prevention of Pollution by Garbage from Ships) (Amendment) Regulations 2020 (SI 2020/621), Reg.3
[103] Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 (SI 2018/68), Reg.4

(Prevention of Oil Pollution) Regulations 2019 (SI 2019/42)[104] and the Merchant Shipping (Safety of Navigation) Regulations 2020.[105] These SIs apply the ambulatory reference method to international shipping standards relating to specific provisions in IMO treaties, several Codes in SOLAS and MARPOL, and interpretative resolutions.

It is also important to note that although the ambulatory references could ensure that the MSA 1995 would automatically incorporate international shipping standards in line with the international standards, the UK also recognises the need to ensure that domestic stakeholders would also acknowledge the changes to these regulatory standards. The competent agency, particularly the Maritime and Coast Guard Agency (MCA), will make the amendments to treaties available to the public and publish guidance notices for the implementation of the SIs. For example, the MCA published the Marine Guidance Note on the guidance on the Merchant Shipping (Safety of Navigation) Regulations 2020 which clarifies the implementation of shipping standards relating to the safety of navigation that have been incorporated into the Merchant Shipping (Safety of Navigation) Regulations 2020 by the ambulatory reference.[106]

In short, the UK has employed several techniques for incorporating international shipping standards into domestic legislation. These techniques include the structure of the MSA 1995, the clear and consistent terminology and scope of application, the delegation of legislative power to government agencies, and the use of ambulatory references in the subordinate legislation. These techniques could potentially offer good practices that could be replicated by developing states, including Thailand, in the transposition of international shipping standards into the domestic legal framework. Since these techniques are concerned with legislative drafting, which particularly requires an understanding of IMO's standard settings rather than technical standards, they can be applied by developing countries, which might lack technical experts.

[104] Merchant Shipping (Prevention of Oil Pollution) Regulations 2019 (SI 2019/42), Section 4
[105] Merchant Shipping (Safety of Navigation) Regulations 2020 (SI 2020/673, Reg.4
[106] Maritime and Coastguard Agency, *MGN 610 (M+F) Marine Guidance Note on the Navigation: SOLAS Chapter V - Guidance on the Merchant Shipping (Safety of Navigation) Regulations 2020,* (2020)

(2) Lessons for Thailand

The challenges faced by Thailand, as a case study, highlight the need to improve its domestic legal framework, particularly the NWA 1913 and TVA 1938, to ensure timely and appropriate incorporation of amended IMO treaties. This necessitates improvements to the structure of these laws, which serve as the primary national legislation implementing IMO treaties and related instruments. Considering the law-making strategies applied by the UK, there are three significant law-making strategies, that can be applied to the transposition of international shipping standards into the national legislation of other states, including Thailand, as follows:

(a) The appropriate legal basis

As the international legal framework for maritime shipping has been regularly developed and increasingly complicated, the national legal framework of states should be flexible enough to allow the legal drafter to choose an appropriate legal basis and legal order for incorporating international standards into the legal framework. The structure of the legal framework can be organised, by taking into consideration the objectives of the international shipping standards, including maritime safety and ship-source pollution prevention, reduction, and preservation, which might, to some extent, relate to the exercise of administrative and enforcement powers. As such, states can easily identify the appropriate provision for incorporating international standards and avoid the repetitive and inconsistent transposition of international standards into the legal framework.

(b) The delegation of legislative power

To ensure that the regular amendments to international shipping standards can be brought into the national legal framework and enforced in time when they come into force, the appropriate legal basis for incorporating these standards should be available in the national legal framework. Thus, it is necessary that the primary legislation delegate the legislative power for prescribing shipping standards to subordinate legislation to enable the regular transposition of technical standards into the legal framework.

(c) The ambulatory reference approach

Although the delegation of legislative power could facilitate the transposition of international shipping standards into appropriate legal order, the law-making process would also take some time before enforcing the newly adopted shipping standards. Furthermore, the regular amendments to international shipping standards, typically adopted through the tacit acceptance procedure, usually don't require a legal basis beyond the existing framework for the standards themselves. This eliminates the need for time-consuming enactment of new subordinate legislation to incorporate the changes. As such, the ambulatory reference approach, used by the UK and other countries as a fast-track approach, should be applied to automatically incorporate regularly amended international shipping standards.

Nevertheless, the ambulatory reference approach should be used with some caution, as follows:

(i) The ambulatory reference is applicable to international shipping standards that do not require executive power beyond the existing legal basis of the amended standards, the legal framework;

(ii) States should have a sort of system in place to follow up on the amendment of treaties and , particularly ensuring that their officials involved in the implementation acknowledge the standard-setting methods of the IMO;

(iii) States should actively participate in the standard-setting processes, ensuring that the outcomes of the participation, including the adoption of any amendment to a treaty, will be transferred to domestic agencies involved in the implementation for consideration and even a decision on the acceptance of the amendment;

(iv) States should retain the legislative power to revoke the legal effect of the international standards as necessary to allow parliamentary scrutiny and ensure that the newly adopted standards adhere to domestic interests. As such, states can prevent the legal effect of newly adopted standards if they object to the international standards.

5.3.2 The objection to international shipping standards

The complexities involved in transposing international shipping standards, especially those updated through the tacit acceptance process, can lead to significant delays in implementing treaties. This raises the question of whether, in such cases, the state should leverage the treaty provisions allowing objections to delay an amendment's entry into force for a specific period. As discussed in Chapter 2, objections serve as an IMO mechanism to ensure that tacit acceptance reflects true national interests.[107]

In line with the observation of Chayes and Chayes that the compatibility of the treaties with the national interests is also a vital feature of a treaty, which could lead to the compliance of the treaty[108], many IMO treaties, such as MARPOL and SOLAS, provide an opportunity to opt out of the amendment of treaties or delay the entry into force of the amendment for a period as specified in the treaties to ensure that state parties that tacitly accept the amendment will implement the amendment entering into force. The opt-out opportunity and the delay in its entry into force also provide an opportunity for state parties to transpose the amendment into a national legal framework. Until the present, only a small number of states have objected to and delayed the entry into force of amendments to IMO treaties, such as Egypt, Canada, Finland, Malta, Norway, Panama, Tunisia, the United Kingdom, and the United States of America (US).[109] Among these states, only Panama and Tunisia are developing countries,[110] though the reason for Tunisia's objection was not given. Even though this act takes the form of an objection, further analysis demonstrates that this act does not necessarily indicate dissatisfaction with the amendment itself, but rather that the objections of some states were expressly due to the domestic legislative challenges in the transposition of amendments of IMO treaties into domestic legal frameworks, and the objections were later withdrawn after the amendments had

[107] VCLT, Art. 26

[108] Abram Chayes and Antonia Handler Chayes, 'A Theory of Compliance', in The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1996), at p. 1-28

[109] See e.g. International Maritime Organization, *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 depository or other functions*, (2023), at p. 28, 30, 66, 114, 164, 449-450.

[110] The classification of these states is based on that of the UN. See United Nations, *World Economic Situation and Prospects* (United Nations 2020), at p. 166.

been transposed into domestic legal frameworks. It also shows that these states performed the treaties in good faith and respected the supremacy of the treaties in accordance with the VCLT.[111] In other words, these states accepted the amendments when they were ready to fully comply with the treaties. For example, Finland objected to the amendment of SOLAS in 2005 and later withdrawn the objection in 2012 after the amendment was already incorporated into national legislation[112] while Egypt and Canada requested the delay of the entry into force of the amendment of SOLAS for a year as given by SOLAS for domestic procedural requirements.[113] Therefore, to avoid non-compliance and promote treaty compliance, states have the option of objecting to or delaying the entry into force of an amendment adopted through the tacit acceptance procedure. This allows them to ensure they are ready to implement newly adopted obligations when they do come into force. It is also worth noting that the opting-out opportunity given by other international legal frameworks has also been taken by states as a means for the domestication of amendments of the treaty that come into force by the tacit acceptance procedure, for instance, the Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973 (CITES),[114] although this opportunity might be rarely taken by state parties of some international legal frameworks of which the amendment also comes into force by the tacit acceptance procedure.[115]

In addition to the use of appropriate law-making techniques, developing states should also consider taking advantage of the opt-out opportunity given by treaties to allow for the improvement of the domestic legal framework and ensure that domestic interests are also taken into consideration before accepting any amendments to treaties. The objection to an amendment to a treaty could ensure that ships flying their flag will not be substandard; on the other hand, the IMO will

[111] VCLT, Art. 26-27
[112] See, e.g., Status of IMO Treaties (n 109), at p. 42-43.
[113] See, e.g., Status of IMO Treaties (n 109), at p. 28, 66.
[114] Peter H. Sand, 'Enforcing CITES: The Rise and Fall of Trade Sanctions' (2013) 22 Review of European, Comparative & International Environmental Law 251, at p. 257
[115] Amendments to the Chicago Convention have not also been objected to by the majority of state parties, which could annul the entry into force of the amendments. See Dempsey (n 16), at p. 68.

recognise the practicality of the international standards, which could lead to the review and improvement of the international standards towards the practical achievement of uniform and universal implementation. Alternatively, states may also consider delaying the entry into force of an amendment to a treaty, particularly SOLAS, which allows state parties to exclude themselves from giving effect to any amendment to the treaty within a year after it has come into force. However, states should ensure that they can implement it in time; otherwise, they should rather object to the treaty.

Yet there are risks because if state parties seriously take this opportunity, the amendments may be annulled as a result of the quantified and qualified objections as required by treaties.[116] Nevertheless, this may not apply to certain treaties like SOLAS and COLREG, which allow states to set the preference date for the entry into force of amendments. [117] State parties under these treaties can negotiate their needs or domestic interests, which might prevent them from effectively implementing the standards within the prescribed period. Hence, the given opportunity to set the preference date of entry into force could lessen the possibility of invalidating the amendment.

5.3.3 Capacity-building

The effectiveness of the strategies to overcome the challenges in the transposition of international shipping standards into the national legal framework presented in the previous sections could be undermined by the capacities of states needed for the implementation and application of the strategies. States should evaluate their treaty implementation and determine whether their official personnel involved in the transposition of IMO treaties into the national legal framework have sufficient knowledge and expertise for the implementation.

The challenges in transposing IMO treaties into domestic legal frameworks, as explored above, suggest that government officials may lack sufficient knowledge and

[116] For example, any amendment to the Annex to SOLAS 1974, which provides regulatory standards, will not come into force if one-third of state parties contributing to not less than fifty percent of the world gross tonnage object to the amendment within the specified period. See SOLAS, Art. VIII(b)(vi).
[117] See the discussion on these standard-setting methods in Chapter 2, Section 2.4.

expertise in treaty development, substantive content, and the broader international legal framework for maritime shipping. The poor technical capacity of government officials may also include those involved in IMO standard-setting. In addition to the knowledge and expertise of government officials, the lack of efficient organisational management for facilitating the implementation, including the participation of government representatives in the standard-setting processes, and poor domestic cooperation across agencies may also lead to these challenges. Furthermore, the unavailability of best practices in other countries leaves states, particularly developing countries, to struggle with implementation alone without sufficient capability. Thus, as discussed in the previous chapter, states should seek assistance from available sources and even establish cooperation with other states or regional cooperation in capacity-building, in addition to the development of domestic organisational capacity for implementation.

5.4 Conclusion

By investigating details in the case of Thailand, we have been able to explore the major challenges for the implementation of international shipping standards through the national legal framework and some of their root causes. These challenges include the transposition of international shipping standards into the national legal framework directly into the main provisions of the primary laws, the poor organisation of the legal framework's structure to facilitate the incorporation of international standards into the legal framework, the lack of coherence within the legal framework, the inappropriate legal basis and delegation of legislative power, the delay in the transposition of the technical standards, and the lack of technical capacity for the implementation.

In some cases, these challenges could be alleviated by using appropriate law-making strategies. Firstly, states should provide an appropriate and sufficient legal basis and use appropriate legal instruments for the transposition of international shipping standards into the domestic legal framework, which should also be organised to facilitate the incorporation of international standards. Secondly, states should delegate the legislative power to prescribe technical standards to subordinate legislation to bypass the parliamentary process, hence shortening the transposition

process. Thirdly, states should also transpose international shipping standards, which do not require executive power exceeding the amended standards, into the legal framework through the ambulatory reference. However, some cautions should also be taken when applying this strategy. States should retain the power to annul the legal effect of the automatically incorporated international standards and reserve the parliamentary power to oversee the implementation. Moreover, states should also actively participate in the IMO's standard-setting processes and have in place a system or mechanism to follow up on the amendments to IMO treaties.

In addition to the law-making strategies discussed in this chapter, states should also consider the opportunities to opt out of the legal effect of treaties in order to allow for the transposition of international standards, which have been accepted tacitly, into domestic legal frameworks before they come into force. To be able to take this opportunity, the mechanism for following up on the amendment of IMO treaties must be established. States may also negotiate the date of the entry into force of amendments to some treaties or even delay the legal effect of the amendment, as allowed, until they are ready for implementation.

The IMO's efforts to promote universal and uniform implementation through its diverse standard-setting strategies and participatory opportunities for states could ultimately prove futile unless the performance of national maritime administrations in Thailand and other developing countries is significantly improved. Since the challenges in the transposition of international shipping standards into the national legal framework also reflect the lack of technical capacity for implementation, states should seek technical assistance from the IMO and establish technical bilateral or regional cooperation with other developed countries.

The challenges of Thailand with respect to the transposition of international standards into national legislation might also be lessened, to some extent, if an overview of the international legal framework relating to maritime safety and marine pollution prevention, models of national legislation, and best practices are made available for developing states. On one hand, these challenges prove that the technical assistance and soft law instruments provided by the IMO might be inadequate for the IMO to achieve its aims of ensuring uniform and universal

implementation of treaties.[118] On the other hand, they also underline the need to look for further technical assistance from other states or organisations, such as NGOs, which are technical experts in shipping standards, through national or regional cooperation. Merely the participation of NGOs in the IMO treaty-making processes could not ensure that all Member States could implement technical regulations that have already been adopted. The challenge of Thailand may prove that assistance from technical experts such as NGOs in the development of legal frameworks could, at least, contribute to the improvement of national legislation towards international standards. Karim also noted that it might be unnecessary for the IMO to send technical experts to assist in improving the legal frameworks of states if they lack resources for implementation.[119] Therefore, capacity-building should be provided to enhance the organizational capacity of competent state agencies, ensuring that they can establish systems with sufficient resources to effectively implement treaties. These challenges facing developing countries may also signal the need for the IMO to improve its capacity-building policy to provide appropriate and sufficient assistance to developing countries, as discussed in Chapter 4. Even so, the improvement of the transposition of international standards into the national legal framework toward international standards is not enough to ensure uniform implementation unless states could also effectively enforce the laws and regulations, as will be discussed in the next chapter.

[118] IMO (ASR No.49196) (n 58), at p. 9

[119] Saiful Karim, 'Implementation of the MARPOL Convention in Developing Countries' (2010) 79 Nordic Journal of International Law 303, at p. 333

Chapter 6 The enforcement of the national legal framework for maritime shipping

6.1 Introduction

Generally, IMO treaties dictate how states should exercise their prescriptive jurisdiction but leave it to determine their enforcement jurisdiction[1]. To fill this gap, UNCLOS provides a jurisdictional framework for states to implement international shipping standards relating to maritime safety and pollution prevention from ships by reiterating the duties of states as flag, port, and coastal states and prescribing enforcement jurisdictions. Nevertheless, the international framework underlines that the primary responsibility for enforcing international shipping standards belongs to the flag state, while others are considered to be supplementary mechanisms to enforce the international standards. This thesis will therefore focus mainly on the enforcement of international shipping standards by the flag state.

The concept of "flag state" is provided by Article 91 of UNCLOS by referring to those having a "genuine link" with the ship. The ITLOS in *Saiga*[2] and *Virginia G*[3] clarified this concept by considering a regulatory link between a ship and the state, demanding "jurisdiction and control over the ship," which has been made through ship registration. By virtue of UNCLOS, flag states assume their enforcement jurisdiction under their national laws, and each flag state has a duty to "effectively exercise its jurisdiction and control in administrative, technical, and social matters over ships flying its flag and take necessary measures to ensure safety on the high seas.[4] Obviously, the safety of life at sea is a significant concern for the international community, particularly in the high seas, where no states have jurisdiction over ships except flag states[5]. The Convention requires flag states to take measures and particular procedures to ensure the safety of ships and their operation at sea and

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[1] International Maritime Organization, *LEG/MISC.8 Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization*, (2014), at p. 12

[2] M/V 'Saiga' (No 2) (Saint Vincent and the Grenadines v Guinea), Judgment, ITLOS Reports 1998, at p. 79-83

[3] M/V 'Virginia G' (Panama/Guinea-Bissau), Judgment, ITLOS Reports 2014, at p. 113

[4] UNCLOS, Art.94(1),(2)(b). While article 94 of UNCLOS is in the part of UNCLOS dealing with the high seas, it actually applies more broadly. See, e.g., Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission, Advisory Opinion, 2 April 2015, ITLOS Reports 2015, at p. 4.

[5] UNCLOS, Art.92(1), 94. See also *Case of the S.S. "Lotus" (France v Turkey)* PCIJ Rep Series A No 10, at p. 25.

seafarers on board the ships by conforming to “generally accepted international regulations, procedures, and practices and to take any steps which may be necessary to secure their observance.”[6] In addition to the enforcement duty of flag states, which shall be performed in line with international standards through the rules of references, the due diligence obligation of flag states, which is the obligation to conduct, is also highlighted.[7] This also includes the obligation to provide "enforcement mechanisms to monitor and secure compliance”[8].

In addition to those relating to maritime safety, Article 217 of UNCLOS also reiterates the duty of flag states to ensure that ships flying their flags are complying with applicable rules and regulations relating to the prevention, reduction, and control of pollution in the marine environment, while clarifying that states are required to take “effective enforcement” of the standards, “irrespective of where a violation has occurred”[9]. This provision also expands the duties of flag states to include the use of “appropriate measures” to ensure that ships flying their flags comply with international standards relating to maritime safety and ship-source pollution prevention. The duty to “ensure” as required by this provision also requires the flag state to perform a due diligence obligation, similar to that of Article 94. Bearing in mind that the applicable rules and regulations are the standards provided in IMO treaties and also the mandatory guidelines such as the III Code, flag states must therefore enforce these rules and regulations with due diligence.

These provisions specify general duties and enforcement jurisdiction and require flag states to take measures as listed, including ship survey and inspection, certification, investigation of any violations and incidences, initiation of legal proceedings, and penalties that are severe enough to deter violations.[10] Although the international legal framework provides some guidance on the types of enforcement measures to

[6] UNCLOS, Art.94(3), (4), (5)
[7] In 2015, the ITLOS, taking into consideration the recognition of the due diligence obligation under international laws by the ICJ and ITLOS, interpreted this article as a due diligence obligation of the flag state to take the necessary steps to achieve the specified result. See ITLOS, *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission*, Advisory Opinion of 2 April 2015, ITLOS Reports 2015, at para. 125-128, 219.3.
[8] Ibid., at para.137-138
[9] UNCLOS, Art. 217(1)
[10] UNCLOS, Art.94(4)(a), 217(2)-(8)

take, states are allowed to determine precisely how to embed the measures into the national legal framework and what strategies and further measures should be established for achieving effective enforcement, taking into account their technical and financial capacities.

This chapter will explore the enforcement duties of states under IMO treaties, which also include the minimum enforcement measures under UNCLOS, to ensure that international shipping standards are complied with. The challenges of states, particularly legal challenges, in performing these duties will also be investigated. It is worthwhile noting that the challenges explored in this chapter might include those of some developed states since the deficiencies in enforcing national maritime legislation are also caused by regulatory challenges in the enforcement framework in addition to the incapacities of states. However, the legal framework of Thailand will be examined to present the challenges of some developing countries, which might lack awareness of the relevant theoretical conceptual framework of maritime shipping treaties and have not established appropriate regulatory strategies for enforcing international standards in practice.

To provide suggestions for states to enhance their existing enforcement practices, this chapter will also explore the main regulatory approaches for enforcement that have been adopted among states and analyse how to apply these approaches strategically in the maritime law context. The UK, a leader in global maritime affairs, offers a compelling example of utilizing responsive regulatory strategies for effective enforcement. These strategies are characterized by a multifaceted approach, engaging diverse stakeholders, adhering to proportionality and transparency, and prioritizing regulatory efficiency. While the UK's enforcement model reflects a developed nation's capabilities, it serves as a blueprint for other countries, including those with limited resources. By tailoring appropriate regulatory strategies to their specific context, developing countries can overcome technical difficulties and improve their implementation of international standards.

6.2 International legal and policy framework for enforcement of international shipping standards

Although the IMO has no enforcement power, IMO treaties do demand that parties take enforcement action to ensure the effectiveness of the treaties. In particular, IMO treaties also reiterate the common enforcement duties of state parties to IMO treaties and require the states to impose measures to enforce the international standards. To "give effect" to treaties and ensure maritime safety while preventing ship-source pollution,[11] states are generally required to enforce international shipping standards on individual vessels flying their flags and individuals working in the vessels. The III Code suggests flag states "take all necessary measures to secure observance of international rules and standards by ships entitled to fly its flag and by entities and persons under its jurisdiction so as to ensure compliance with its international obligations."[12] The measures suggested by the III Code, which illustrate the common duties of states to enforce national legislation, will be explored below.

6.2.1 Survey and certification

State parties to all IMO treaties are commonly required to conduct surveys of ships flying their flags to ensure that the standards of the ships meet international standards.[13] These treaties include Load Lines[14], Load Lines Protocol[15], SOLAS[16], SOLAS Protocol[17], MARPOL[18], BWM[19] and AFS[20]. Generally, the surveys shall be initially conducted before the ships are allowed to proceed to sea for the first time and periodically conducted while the ships are in service to ensure that the ships, their equipment, and appliances comply with international shipping standards and

[11] This is a general obligation of state parties to IMO treaties.
[12] International Maritime Organization, Resolution A.1070(28) IMO Instruments Implementation Code (III Code), (2013), Annex, at para.22
[13] MARPOL, Reg.6
SOLAS, Reg.6 of Chapter I
[14] Load Lines, Art.13-14
[15] Load Lines Protocol, Annex A, art.13
[16] SOLAS, Reg.6-10 of Chapter I
[17] SOLAS Protocol, Reg.6-10 of Chapter I
[18] MARPOL, Reg.6 of Annex I, reg.8 of Annex II
[19] BWM, Art.7, reg. E-1
[20] AFS, Art.10, reg.1 of Annex 4

national legislation and are also in a condition fit for service.[21] These surveys, although not exactly the same among the treaties, are generally scheduled after the ships have been used for a period, repaired, or changed significantly. The ship survey is therefore a means to detect noncompliance with the regulatory standards of the ships while also verifying compliance with international standards, resulting in better safety at sea and pollution prevention.

However, the mandatory routine surveys may be ineffective by themselves in detecting regulatory noncompliance by ships before or after the surveys. As such, these surveys may not prevent violations of regulatory standards, particularly unintended violations or even intended violations when financial gains are greater than the costs of being penalised. The III Code hence suggests flag states perform periodic inspections of ships flying their flags to "verify that [the] actual condition of ships and [their] crews is in conformity with the certificates [they] carry."[22] The periodic inspection could reduce the risk that some substandard ships might sail at sea after the mandatory surveys have been performed.

Historically, states have delegated the power to private entities to conduct surveys and inspections of ships flying their flags to assess the safety conditions of the ships with the aim of evaluating and identifying appropriate insurance costs for the ships.[23] Originally, these authorised private entities were classification societies, which have been established for assessing the reliability and quality of ships for various stakeholders, including marine insurers, bankers, charterers, and shipowners, since the seventeenth century.[24] To evaluate the safety of ships in accordance with the rules of classification societies and national standards, these technical institutions[25]

[21] There are many types of surveys under the IMO treaties. See details in International Maritime Organization, Resolution A.1156(32) Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), (2021), Annex, at para.2.
[22] Resolution A.1070(28) (n 12), Annex, at para.22.2
[23] John N.K. Mansell, 'The Regulatory Regime for Discharge of Flag State Duties: The Role of Classification Societies', in Flag State Responsibility: Historical Development and Contemporary Issues (Springer 2009), at p. 138
[24] Philippe Boisson, 'Classification Societies and Safety at Sea: Back to basics to prepare for the future' (1994) 18 Marine Policy 363, at p. 364-375
[25] Classification societies were observed as institutions with "impartiality and technical competence." See Hartmut Hormann, 'Classification Societies - What is Their Role, What is Their Future?' (2006) 5 WMU Journal of Maritime Affairs 5, at p. 6.

employ surveyors who have technical expertise and experience while also establishing shipping standards, so-called "rules"[26]. Some of these rules have been adopted by the IMO since 1959; for example, SOLAS was amended in 1996 [27] requiring ships to meet shipping standards established by classification societies.

After the mid-nineteenth century, flag states began to internalise international shipping standards relating to maritime safety and delegated powers to survey and inspect ships to classification societies.[28] These practices have later been accepted by the international community as explicitly recognised in major IMO treaties[29]. For example, SOLAS states that "[T]he inspection and survey of ships, so far as regards the enforcement of the provisions of the present regulations and the granting of exemptions therefrom, shall be carried out by officers of the Administration. The Administration may, however, entrust the inspections and surveys either to surveyors nominated for the purpose or to organizations recognized by it."[30] Chayes and Chayes point out that the cost of treaty enforcement has a significant impact on treaty performance [31] and it follows that the delegation of these duties could therefore potentially induce implementation and national enforcement. This observation was also aligned with Mitchell, who concluded that the delegation of state duties transfers the cost of enforcement to the "existing institutions," which could foster national monitoring and enforcement.[32]

However, the assessments of ships by multiple entities, including classification societies, which have to apply their rules and implement IMO treaties, were fragmented [33] , obstructing uniform implementation of IMO treaties. The IMO

[26] International Association of Classification Societies, 'Classification societies - what, why and how?' <https://www.iacs.org.uk/media/7425/classification-what-why-how.pdf> accessed 13 October 2021
[27] Regulation 3-1 on structural, mechanical, and electrical requirements for ships was added to SOLAS 1974, which requires state parties to implement the shipping standards developed by classification societies. See International Maritime Organization (IMO), Resolution MSC.47(66) Adoption of Amendments to the International Convention For The Safety of Life At Sea, 1974 (1996).
[28] Boisson (n 24), at p. 370
[29] See SOLAS, chapter I, reg.6(a); Load Lines, Art.13,16(3); TONNAGE, Art.6-7; MARPOL, Aeg.6.3 of Annex I, Reg.8(2.1) of Annex II.
[30] Ibid.
[31] Abram Chayes and Antonia Handler Chayes, 'A Theory of Compliance', The New Sovereignty: Compliance with International Regulatory Agreements (Harvard University Press 1996), at p. 2.
[32] Ronald B. Mitchell, 'Regime Design Matters: Intentional Oil Pollution and Treaty Compliance' (1994) 48 International Organization 425, at p. 453-454.
[33] Boisson (n 24), at p. 375

therefore first developed guidelines for the work of delegated organisations, so-called "Recognized Organizations" (ROs), in 1993. These guidelines provide uniform procedures, minimum standards for [34] and specified qualifications for ROs [35]. Although the guidelines are not legally binding, they could, to some extent, shape states' practices. However, many ROs had not met the standards suggested by the guidelines, resulting in "substandard surveys of substandard ships and [the] issuance of meaningless statutory certificates"[36]. The delegation of these statutory works by domestic administrations could therefore impede the achievement of the IMO in promoting uniform implementation of international shipping standards.

Accordingly, the IMO further developed the code of practice for ROs - the so-called "Code for Recognized Organizations"[37] (RO Code) - to provide "a standard approach"[38] to assist states in ensuring the standardised and uniform practice of the ROs by improving the guidelines and incorporating all requirements of the IMO treaties relating to ROs into the RO Code. To ensure the uniform implementation of international shipping standards through the ROs, the RO Code has been made mandatory for state parties to some major IMO treaties, particularly SOLAS[39], Load Lines Protocol[40] and Annex I and II of MARPOL[41]. This method would help state parties "achiev[e] harmonized and consistent global implementation of requirements [for monitoring ROs] established by IMO instruments." [42] As the RO Code stipulates standards for delegating the power to ROs to perform the duties of flag states, states have to provide a legal basis for making an agreement with an RO to authorise the

[34] International Maritime Organization, Resolution A.739(18) Guidelines for the Authorization of Organizations Acting On Behalf Of The Administration (1993)
[35] International Maritime Organization, Resolution A.789(19) Specifications on the Survey and Certification Functions of Recognized Organizations Acting On Behalf Of The Administration (1995)
[36] Mansell (n 23), at p. 139.
[37] See International Maritime Organization, Resolution MSC.349(92) Code for Recognized Organizations (RO Code), (2013); International Maritime Organization, Resolution MEPC.237(65) Code for Recognized Organizations (RO Code), (2013).
[38] See Resolution MSC.349(92) (Ibid.), at preamble; Resolution MEPC.237(65) (Ibid.), at preamble.
[39] International Maritime Organization (IMO), Resolution MSC.350(92) Amendments to the International Convention for the Safety of Life at Sea, 1974, as, amended, (2013)
[40] International Maritime Organization (IMO), Resolution MSC.356(92) Amendments to the Protocol of 1988 Relating to the International Convention on Load Lines, 1966 as amended (2013)
[41] International Maritime Organization (IMO), Resolution MEPC.238(65) Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, (2013)
[42] Resolution MSC.349(92) (n 37)

ROs to conduct surveys, certifications, and other statutory work of flag states on behalf of the flag states.[43] States are also required to establish an oversight programme to monitor the conduct of the ROs.[44] It is also worthwhile to note that the RO Code employs a managerial approach to ensure the uniform implementation of the Code through several compliance mechanisms. These mechanisms include reporting requirements[45] and the exchange of information through the information systems[46], based on the transparency principle, as well as reviewing and an oversight programme for monitoring the performance of ROs. Even though flag states still have to oversee ROs and verify the compliance of ships, this mechanism could, to some extent, alleviate the technical difficulties and financial constraints of states, particularly developing countries, in enforcing international shipping standards by delegating the enforcement power to survey and issue certificates to verify the standards of ships[47].

To reassure that the unidentified noncompliance ships will be discovered by flag states, the major IMO treaties, through the III Code[48], require the states to conduct "supplementary surveys" in addition to those compulsory surveys, particularly those conducted by ROs, which are required based on periodic rounds and changes to verify that the ships have already met international standards. To perform supplementary surveys, states also have opportunities for designing the survey programmes for choosing the targeted ships, which have been surveyed by ROs, within the national context. As such, the effectiveness of detecting possible hidden noncompliance depends to a large extent on the national context, including financial and human resources as well as national strategy. Although the Code includes these obligations under the section on oversight of ROs, it does not prevent states from

[43] See Resolution A.1070(28) (n 12), Annex, para.18; Resolution MSC.349(92) (n 37), Annex, part 2, at para.8.2, 8.3.
[44] See Resolution A.1070(28) (n 12), Annex, at para.20; Resolution MSC.349(92) (n 37), Annex, part 3.
[45] SOLAS, Reg.6(b) of Chapter I; MARPOL, Reg.6(b) of Annex I, reg.8(2.4) of Annex II. See also International Maritime Organization (IMO), *MSC/Circ.1010-MEPC/Circ. 382 Communication of Information of the Authorization of Recognized Organizations (ROs), (2001)*.
[46] International Maritime Organization (IMO), *Resolution 1087(28) Notification and Circulation Through The Global Integrated Shipping Information System (GISIS), (2014)*
[47] Mansell (n 23), at p. 138
[48] Resolution A.1070(28) (n 12), Annex, at para.20.1-20.2

also setting up a programme to inspect ships that have been surveyed by government officials.

Additionally, the IMO also provides an interpretative resolution[49] to assist states in carrying out the survey in compliance with all relevant IMO treaties, including SOLAS Protocol[50], Load Lines Protocol[51], MARPOL, BWM and AFS.[52] This non-binding instrument lays down "a general framework"[53] which integrates the international shipping standards under these treaties into a single instrument that clarifies and simplifies the survey requirements under multiple treaties, therefore assisting surveyors to inspect the ships in practice.

The evidence showing that a flag state has exercised its enforcement jurisdiction over ships flying their flags through the survey is through the issuance of relevant certificates.[54] By providing significant details, including the identity details of the ships, the standards that have been surveyed, and the state that conducted the survey or authorised the RO to survey the ships, certificates are therefore evidence showing a genuine link between the flag state and the ship. They can also be used as prima facie evidence for the flag state and other states in monitoring regulatory noncompliance by ships. Hence, they help states make preliminary decisions for identifying ships at risk of noncompliance.[55] However, the value of certificates may be undermined by the performance of surveyors, which also depends on a sufficient number of surveyors who have technical knowledge and expertise for performing the duties. This issue is also of concern among states in the IMO through the III Code[56], which requires states to ensure that their ship surveyors are qualified for conducting the surveys and inspections.

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[49] Resolution A.1156(32) (n 21)

[50] State parties to SOLAS 1974 have also been recommended to early implement the Harmonized System of Survey and Certification as stipulated in the SOLAS Protocol and Load Lines Protocol. See International Maritime Organization (IMO), Resolution A.718(17) Early Implementation of the Harmonized System of Survey and Certification (HSSC), 1991, (1991); International Maritime Organization (IMO), Resolution A.745(18) Early Implementation of the Harmonized System of Survey and Certification (HSSC), 1993, (1993).

[51] Load Lines, Art.13

[52] Ibid.

[53] Resolution A.1156(32) (n 21), at para.3.1

[54] SOLAS, Chapter I; MARPOL, Reg.6(3.2) of Annex I, reg.7 of Annex II; Load Lines 1966, Art.16

[55] Load Lines, Art.16

[56] Resolution A.1070(28) (n 12), Annex, at para.22.3, 28-37

Flag states also have to inspect ships flying their flags when the deficiencies of ships are notified by other states, for example, port states.[57] In some cases, when flag states have been notified by other states about the absence of proper flag state control over a ship, the states shall also investigate the case, which might include the inspection of the ship, before taking the necessary actions to mitigate the situation.[58]

6.2.2 Prohibition of non-compliant ships from sailing at sea and correction of deficiencies

The due diligence obligation under UNCLOS is obviously embedded into IMO treaties through enforcement mechanisms. In addition to the survey and certification, flag states are required by UNCLOS[59] to prohibit ships in violation of international shipping standards relating to pollution prevention from sailing at sea, while leaving states to determine how and when they should exercise enforcement powers to ensure that substandard ships proceed to the seas. In addition to those relating to environmental protection, major IMO treaties, through the III Code, have the same obligation[60] while also underscoring the duty of a flag state to empower their surveyors to exercise enforcement power over surveyed ships to be repaired before being allowed to proceed at sea.[61] The execution of this administrative power is clearly to ensure safety at sea and prevent pollution from ships.

The prohibition of noncompliant ships from sailing would be effective only if states were able to detect these ships. In other words, flag states need to perform due diligence enforcement by adopting "a certain level of vigilance in their enforcement"[62] which, at least, enables the states to identify substandard ships. MARPOL requires flag states to establish "appropriate and practicable measures"[63] to detect any

[57] SOLAS, Reg.6(3.3)
[58] UNCLOS, Art.94(6), 228
[59] UNCLOS, Art.217(2)
[60] This means that under treaties other than SOLAS, MARPOL, Load Lines, COLREG, and STCW, under which the III Code becomes mandatory, states are still required to perform this obligation under UNCLOS. See Resolution A.1070(28) (n 12), Annex, at para.22.1.
[61] SOLAS, Reg.6(c); MARPOL, Reg.6.3.2 of Annex I, reg.8.2.3 of Annex II
[62] See the discussion of the concept of due diligence in Chapter 1. See also *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, I.C.J. Reports 2010, p.14, at p.79, para.197; *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission, Advisory Opinion, 2 April 2015, ITLOS Reports 2015*, p.4, at p.41, para. 130.
[63] MARPOL, Art.6(1)

violation of international shipping standards. This also means that surveyors who detect the violation of shipping standards on behalf of a flag state should therefore have sufficient enforcement power to take actions over the ships as necessary to ensure that the ships do not pose any risks to maritime safety or marine pollution. However, in addition to mandatory and supplementary surveys, the convention leaves the discretion to the states based on their technical capacities to determine what measures are considered "appropriate and practicable." BWM even further requires states to establish cooperation for the detection of violations while allowing flag states to prohibit ships violating shipping standards from sailing, in addition to imposing any sanctions.[64] Treaties relating to maritime safety, such as SOLAS[65], also emphasise the need to ensure that standards of ships are maintained even after being surveyed to prevent risks to the safety of persons onboard and the ships. As such, SOLAS implicitly requires states to have mechanisms to monitor the ships and make them meet the standards before sailing at sea. Yet, these treaties allow states to determine what and how mechanisms or measures should be established to detect violations effectively.

Even though other IMO treaties do not explicitly require flag states to establish any measures to detect the violations of individual ships or seafarers, states should also establish measures to monitor ships flying their flags to ensure that they are operated in accordance with international shipping standards. Therefore, flag states must also decide which measures should be established to monitor the standards of their ships and seafarers under IMO treaties.

6.2.3 Investigation and initiation of legal proceeding

Under UNCLOS, when states discover any violation of international shipping standards, they shall investigate the situation and collect evidence, which may require an additional survey or inspection [66], before determining whether appropriate actions should be taken to ensure that the international standards will be met. The duty of flag states to investigate matters relating to violations of

[64] BWM, Art.10(2)
[65] SOLAS, Reg.11(1)
[66] MARPOL, Annex I, reg.6(1.5), (4.3) of Annex I, reg.8(1.5), (3.3) of Annex II
SOLAS, Chapter I, reg.7(iii), 11(c)

international standards by a ship on the high seas[67] or anywhere in the case of violations of international standards relating to pollution prevention[68], is also established upon notification by other states, underlying the promotion of international cooperation among states.

Yet, the investigation and initiation of legal proceedings against noncompliant ships are obviously the primary obligations of flag states, particularly when the violation is committed outside the jurisdiction of a coastal state since flag states have exclusive jurisdiction over the ships. The UNCLOS reinforces the flag state's primary responsibility by compelling any state initiating proceedings against a noncompliant ship to suspend the action and provide case files to the flag state. This obliges the flag state to initiate its own proceedings against the offending vessel.[69] Under UNCLOS, it is likely that the effective enforcement of international shipping standards through legal proceedings is emphasised. This is because the treaty stresses the need for international cooperation for legal proceedings among states involved in cases of noncompliance, as well as investigations when other states request them.[70]

Some IMO treaties, particularly those relating to pollution prevention, such as MARPOL[71], BWM[72], AFS[73] explicitly require states to initiate proceedings by leaving the nature of the proceedings to the discretion of the flag state if there is sufficient evidence of a violation.[74] In contrast, other treaties, including those relating to maritime safety, such as SOLAS[75] and Load Lines[76] merely require states to take action, which might include the use of any measures, to give full effect to the treaties

[67] UNCLOS, Art.94(6)
[68] UNCLOS, Art. 217(6)
[69] UNCLOS, Art.228
[70] UNCLOS, Art.94(6), 217(6)
[71] MARPOL, Art.4(1), (2), 6(4)
[72] BWM, Art.8(1), (2)(a)
[73] AFS, Art.12(1)
[74] In addition to these treaties, STCW, although it does not express the duty to initiate legal proceedings against a violation of the treaty, acknowledges that states can take legal action against the violation since the treaty requires state parties to cooperate with other states that intend to initiate a proceeding against a person or company violating the treaty. See STCW, Art.1(2), Reg.5(4) of Chapter I.
[75] SOLAS, Art.1(b)
[76] Load Lines, Art.1(2)

and ensure safety at sea. However, the III Code suggests that flag states should institute prosecution against ships flying their flags that violate international shipping standards, regardless of where the violation occurred, after the investigation has been conducted.[77] States possess the discretion to decide when to launch legal proceedings against violations of these treaties. This allows them to establish criteria for initiating proceedings and utilise alternative measures that effectively enforce international shipping standards, while concurrently fulfilling their duty of due diligence.

6.2.4 Enforcement measures and penalties

IMO treaties largely leave states to use their discretion to determine penalties and employ other measures to enforce the international shipping standards for ships flying their flags and their crews. However, most treaties relating to ship-source pollution prevention, including MARPOL[78], BWM[79], and AFS[80] expressly require states to establish legislation to impose measures whose severity is sufficient to discourage violations of the treaties while leaving a room for the states to design their legislation within the national context. It is obvious that IMO treaties, especially those relating to marine environmental protection, pay much more attention to the severity of penalties with the aim of preventing a violation, reflecting the significance of the preventive approach, which is one of the key principles of the Stockholm Declaration[81] and the Rio Declaration[82]. However, there is still discretion as to the penalties that may be applied in individual cases. Although IMO treaties generally leave discretion for states to use imprisonment as a sanction for any violations of the treaties, UNCLOS limits imprisonment as a sanction for foreign vessels violating national legislation or applicable international rules and standards relating to the prevention, reduction, and control of marine pollution.[83] In other words,

[77] Resolution A.1070(28) (n 12), Annex, at para.22.6
[78] MARPOL, Art.4(4)
[79] BWM, Art.8(3)
[80] AFS, Art.12(3)
[81] The United Nations, *A/CONF.48/14/Rev.1 Report of the United Nations Conference on the Human Environment* (1972) (Stockholm Declaration), principle 21
[82] United Nations, *A/CONF.151/26/Rev.l (Vol. I) Report of the United Nations Conference on Environment and Development* (1993), Annex I (Rio Declaration), Principle 2
[83] UNCLOS, Art.230

imprisonment can only be applied to ships flying the flags of the respective states in cases of non-compliance with international shipping standards related to marine pollution prevention, reduction, and control, potentially encompassing aspects of maritime safety as well.

In contrast, treaties relating to maritime safety, including SOLAS[84], Load Lines[85], COLREG[86], and STCW[87], merely require flag states to take any actions to ensure that the treaties will be effectively performed. These treaties therefore allow states to employ alternative measures rather than sanctions or penalties for a violation of the treaty. Nevertheless, the III Code[88] suggests that flag states should have penalties strong enough to deter violations of international shipping standards. As such, measures should be effective for ensuring that the treaties will be complied with while penalties should be severe enough to prevent noncompliance.

6.2.5 Towards a system of compliance

Based upon these individual regulatory treaties, the IMO has developed a mandatory but non-exhaustive list of actions required for the flag state through the III Code to ensure that ships flying their flags comply with international standards under major IMO treaties. This III Code is embedded as a part of the major IMO treaties relating to maritime safety and pollution prevention by requiring state parties to use the III Code in performing their "obligations and responsibilities" under the conventions.[89] The III Code is therefore a mandatory instrument for the implementation of the conventions, including national enforcement of international standards. The III Code not only illustrates the mandatory actions for flag states to fulfil their duties under the treaties but also recommends the establishment of a national system for effective enforcement. This system includes various processes, as shown in ***Figure 8***, designed to ensure that any non-compliance would be detected and managed before

[84] SOLAS, Art.1
[85] Load Lines, Art.1(2)
[86] COLREG, Art.1
[87] STCW, Annex, reg.5(2) of Chapter I
[88] Resolution A.1070(28) (n 12), Annex, at para.22.5
[89] See SOLAS, Reg.2 of Chapter XIII; Load Lines, Reg.53 of Annex IV; COLREG, Rule 40; TONNAGE, Reg.8 of Annex 3; MARPOL, Reg.44 of Annex I, Reg.19 of Annex II.

a non-compliant ship proceeded to the sea. The main processes for ensuring effective enforcement are suggested as follows:

(1) Establishing a national strategy for ensuring that states have taken on international obligations and responsibilities[90];

(2) Preparing for the enforcement of newly introduced standards, including the legal basis for the enforcement and personnel having capability for the enforcement[91];

(3) Imposing enforcement duties and measures, including surveys, inspections, certifications, investigations, administrative power to prohibit a non-compliance ship from proceeding to sea, and penalties of "adequate severity to discourage violation of international rules and standards"[92];

(4) Delegating authority and monitoring recognised organisations (ROs)[93];

(5) Controlling and monitoring the treaty compliance of individual ships[94];

(6) Evaluating and reviewing the treaty performance of the state[95]; and

(7) Improving the state's practices[96].

[90] The national strategy is not mandatory but should be established as a means to achieve the aims of the III Code. See Resolution A.1070(28) (n 12), Annex, at para.3.
[91] Resolution A.1070(28) (n 12), Annex, at para.8, 28-37
[92] Resolution A.1070(28) (n 12), Annex, at para.22
[93] Resolution A.1070(28) (n 12), Annex, at para.18-21
[94] Resolution A.1070(28) (n 12), Annex, at para.23
[95] Resolution A.1070(28) (n 12), Annex, at para.42-44
[96] Resolution A.1070(28) (n 12), Annex, at para.11-14

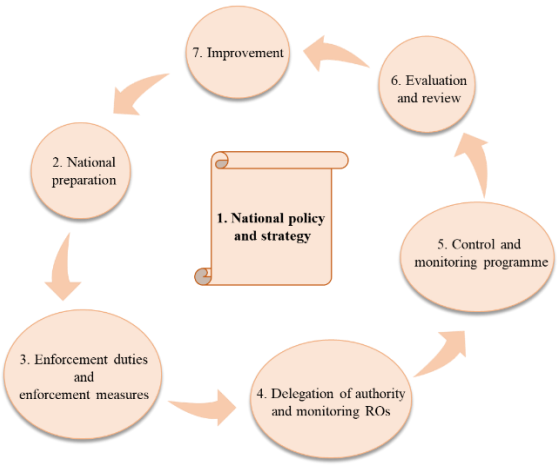

Figure 8 National system for effective enforcement

The III Code underlines the preventive approach as a key principle for the use of penalties, as a vital mechanism for ensuring that ships comply with international shipping standards, and for achieving effective enforcement of IMO treaties. The enforcement of international shipping standards implicitly requires flag states to design a national enforcement system and determine what actions or measures to take, but leaves some discretion as to how they should be integrated into the national legal framework, taking into account the capacities of the states. It is to this question that we now turn.

6.3 Challenges for national enforcement and a case study of Thailand

The enforcement framework established by IMO treaties allows states to determine enforcement measures and penalties for ensuring treaty compliance while achieving maritime safety and pollution prevention. In addition to difficulties relating to administrative work and sufficiently qualified personnel, states, especially developing countries, may face some significant challenges with respect to the legal aspects of enforcement. It is these legal issues that are the main focus of this chapter, and the challenges will be investigated below in this section.

As clearly reiterated by the III Code[97], states should provide a legal basis for the enforcement of treaties, including powers to investigate any cases concerning the implementation and enforcement of treaties and legal proceedings for a violation of a treaty. To fulfil the enforcement duties, states have a clear overview of the

[97] Resolution A.1070(28) (n 12), Annex, at para.8.2

enforcement framework of IMO treaties while also having the ability to identify what enforcement powers under their jurisdiction are needed to perform their duties under all treaties to which they are parties. These powers include the power of a competent authority to investigate international shipping standards on ships flying their flags and seafarers under their authorities, the power of the authority to take any enforcement measures against the ships and crews holding certificates issued or endorsed by the states, and the power to take legal actions against any violation of a treaty by the ships or crews. Accordingly, states should determine how these powers can be executed by the authorities and identify the subjects, geographical scope, and persons who commit the violations on whom states will execute any enforcement measures or penalties, as appropriate, by taking into consideration the chain of responsibility[98]. These tasks require not only the technical knowledge and expertise of the competent authorities of states but also a wider appreciation of the national legal system and culture.

The reports from the audits under IMSAS, which have been conducted since 2016, reveal the challenges faced by unnamed countries in the enforcement of international shipping standards. To further illustrate the challenges of developing countries in practice, the case of Thailand will be presented below. As explained in the previous chapter, the major IMO treaties to which Thailand has been a party, including SOLAS, MARPOL, Load Lines, TONNAGE, and STCW, have been transposed into the NWA 1913, other NWAs, and TVA 1938, while COLREG 1969 has been transposed into the PCA 1979.

6.3.1 The challenges relating to the detection of violations of regulatory standards

IMO audits have found that many states have had difficulties in the detection of violations of regulatory standards.[99] Some states did not establish sufficient legal

[98] International Maritime Organization*, Resolution A.1097(29) Strategic Plan for the Organization (For the Six-Year Period 2016 to 2021),* (2015), at para.2.4

[99] See e.g. International Maritime Organization, *Circular Letter No.3772 IMO Member State Audit Scheme - Consolidated Audit Summary Report (CASR)*, (2017), at para. 129-130, 165-169, 213-214, 243-244, 562-563; International Maritime Organization*, Circular Letter No.3879 IMO Member State Audit Scheme – Consolidated Audit Summary Report* (2018), at para.313-314, 348-349, 414-415, 441-443, 456-457; International Maritime Organization, *Circular Letter No.4028 IMO Member State Audit*

basis for flag state surveys and inspections, while others did not even establish inspection processes and monitoring systems. Most of these problems were caused by the lack of capacity of flag states, including the lack of qualified surveyors, financial resources for monitoring, knowledge on the international shipping framework of enforcement officials, and training for surveyors and inspectors. Some were the result of a lack of national policies and strategies for enforcement.

Thailand has also had legal challenges in ensuring that regulatory noncompliance is detected. Firstly, the Thai legal framework for maritime shipping provides inadequate enforcement jurisdiction over Thai ships, particularly those sailing overseas. Only the PCA 1979 explicitly stipulates the prescriptive and enforcement jurisdiction over ships flying Thai flags, regardless of where a violation has occurred[100]. Unlike the TVA 1938 and PCA 1979, the NWA 1913, which mostly regulates safety and pollution prevention standards for Thai ships, does not provide clear enforcement jurisdiction for the flag state over Thai ships sailing overseas. The NWA 1913, lacking a specific provision defining its scope of application, defines the term "Thai waters" as encompassing all waters within Thai sovereignty, excluding certain sections related to environmental protection. However, some sections, including 119, 119 bis, and 204, extend the definition to include the contiguous zone of Thailand. Additionally, the newly added sections 120/2 to 120/50, concerning the discharge of garbage into the sea, apply to Thai ships regardless of their location. The NWA 1913 rather provides coastal state and port state jurisdictions over ships, regardless of the nationality of the ships, in Thai waters, with a few exceptions in provisions on survey and certification. Accordingly, the enforcement jurisdiction provided in the NWA 1913 alone is inadequate for enforcing shipping standards on Thai ships sailing

Scheme – Consolidated Audit Summary Report (CASR), (2019), at para.256-257, 312-313, 420-421, 540-541; International Maritime Organization (IMO)*, Circular Letter No.4317 IMO Member State Audit Scheme – Consolidated Audit Summary Report* (2020), at para.333-334, 363-364, 417-418, 465-466, 533-534, 687-688, 780-781; International Maritime Organization*, Circular Letter No.4442 IMO Member State Audit Scheme – Consolidated Audit Summary Report* (2021), at para. 129-130, 165-169, 213-214, 243-244.

[100] PCA 1979, Section 6

outside Thai waters. Hence, Thailand cannot exercise enforcement power over Thai ships sailing overseas until the ships enter Thai waters.[101]

Although the TVA 1938, which incorporates international shipping standards with respect to the discharge of hazardous substances in accordance with MARPOL through sections 53/1 and 53/1, does not have a general scope of application of the Act, these provisions may be applied to the enforcement of Thai ships sailing abroad since these provisions are applied to "any area" in the sea. At the same time, the Act does not have any other enforcement powers for the state, meaning that the state cannot exercise flag state enforcement powers such as going onboard and inspecting Thai ships sailing outside Thai territorial seas. [102] This case is also applied to PCA 1979, which does not have provisions on enforcement but rather relies on those of NWA 1913.

Hence, the possibility of the state detecting regulatory noncompliance by Thai ships is lessened by these limited powers. It is worthwhile noting that Thailand has also applied the territorial principle to the investigation and prosecution of criminal offences that occurred on board Thai ships by virtue of the Criminal Code and Criminal Procedure Code, which are general criminal laws of the state [103] . Nonetheless, the powers to access the ships as private properties for the investigation are limited to the purpose of searching for "a person or article" in the ships[104] rather than the detection of violations of regulatory standards. The lack of flag state enforcement powers over Thai ships that have committed any offences overseas would result in the inability to control Thai ships whose deficiencies have been reported to the state by other port or coastal states.

The problems relating to the enforcement powers of the flag state might also result from the lack of prioritisation of the exercise of flag state enforcement power, reflected in the national maritime policy and the performance indicators of the MD

[101] Section 149 of NWA 1913 only requires Thai ships to carry certificates given by the MD before registration.

[102] Only the NWA 1913 gives the power to the MD to board and inspect any ship to examine any violations of the Act and subordinate legislation in Thai waters.
NWA 1913, Section 158

[103] Criminal Code, Section 4

[104] Criminal Procedure Code, Section 17, 57-59

and relevant agencies, particularly the Ship Standards Bureau (SSB), which is responsible for ship surveys and the issuance of certificates. To date, the SSB's performance indicators mainly focus on the enforcement of national laws as a port state rather than that of a flag state.[105] The performance indicators include the percentage of noncompliance ships found in Thai waters compared with the number of surveys, incidents with passenger ships in Thai waters, and port state control, compared with the number of foreign cargo and passenger ships in Thai waters.[106] The percentage of noncompliant ships may not represent the accurate number of noncompliant ships unless the ship survey programme is effective. This means that the indicator does not present the extent to which the surveys could prevent future violations. The reliance on the performance of other port states in detecting Thai noncompliant ships and the quantity of supplementary inspections could not effectively offer proof of the deterrent effect of the survey and inspection programmes adopted by the SSB.

Secondly, the control and monitoring system is weakened by the lack of technical duties of inspectors given by the NWA 1913 and their subordinate regulations. Section 158 gives the power to any assigned MD officials to go onboard all ships in Thai waters to verify that the ships have the license for vessel use (in Thai waters) and whether they violate any provisions or secondary legislation, while no other provisions allow the MD to provide the criteria for inspection in secondary legislation. This means that the monitoring processes and quality of the inspection, which aim to verify compliance with any international shipping standards embedded in the legal instruments, rely on the discretion of each inspector. However, the prescriptive and operational standards under each IMO convention are technically different, hence might require disparate inspection. The absence of criteria for technical inspection for verifying different standards in individual regulations could lessen the possibility of encouraging regulated industries to comply with regulatory standards since they

[105] Marine Department, 'Key Performance Indicators of the Ship Standard Bureau' <https://adminis.md.go.th/2022/04/07/%e0%b8%95%e0%b8%b1%e0%b8%a7%e0%b8%8a%e0%b8%b5%e0%b9%89%e0%b8%a7%e0%b8%b1%e0%b8%94%e0%b8%95%e0%b8%b2%e0%b8%a1%e0%b8%b2%e0%b8%95%e0%b8%a3%e0%b8%81%e0%b8%b2%e0%b8%a3%e0%b8%9b%e0%b8%a3%e0%b8%b1%e0%b8%9a/> accessed 15 September 2022

[106] Ibid.

do not acknowledge what they should carefully perform to avoid penalisation. In other words, the control and monitoring requirements are rather poor, and there is a lack of detailed standards for inspection. Moreover, the inspectors may also miss significant issues that should be comprehensively inspected to prevent the risk of deficiencies.

Furthermore, the legal framework does not legally require the state to follow up and investigate the reports from other port or coastal states, which are third parties, as an identification of risks of regulatory noncompliance that could result in legal sanctions.

6.3.2 The absence, limited range and inadequate severity of enforcement tools

The 2016-2021 audits reveal that inadequate enforcement measures and severe penalties were also common problems among states due to a lack of a comprehensive and updated legal framework for enforcement and insufficient personnel with knowledge, expertise, and financial resources.[107] The maritime legal framework of Thailand is likely to have these problems.

Under the Thai legal framework for maritime shipping, many enforcement measures and penalties have been employed to ensure compliance with the law. These enforcement tools include administrative measures and sanctions such as administrative orders, coercive fines, and administrative fines. In addition to administrative enforcement mechanisms, criminal penalties, such as imprisonment, detention (of persons), and fines, are also used.[108] Even though the measures and sanctions have not regularly been reviewed and amended to ensure the existing enforcement mechanisms are effective for deterring noncompliance following the

[107] See, e.g., IMO (Circular Letter No.3772) (n 99), at para.445-446, 586-587, 610-611, 394-395; IMO (Circular Letter No.3879) (n 99), at para.252-253, 279-280, 348-349, 417-418, 435-436; IMO (Circular Letter No.4028) (n 99), at para.258-259, 282-283, 309-310, 492-493, 516-517, 537-538, 558-559, 573-574; IMO (Circular Letter No.4317) (n 99), at para.360-361, 582-583, 594-595, 752-753; IMO (Circular Letter No.4442) (n 99), at para.105-106, 210-211.

[108] For example, if the discharge of harmful substances from a Thai ship into the seas exceeds the limit specified under the TVA 1938, it will be subject to imprisonment, fines, or both, by virtue of Section 68/9 of the TVA 1938.

changes in the Thai fleet and inflation rates,[109] many challenges can also be identified through the national legal framework and relevant policies.

Firstly, the existing enforcement tools are mostly reactive rather than preventive. The least serious measure in the enforcement toolbox is an administrative order such as a rectification order or prohibition order, which would be imposed after ships violate regulatory standards.[110] Although an informal notice suggesting any improvement to some regulated industries might simply reduce the risk of minor violations, it may not prevent persistent violators since their repetitive negligence of warnings is not formally recognised. The absence of a formal mechanism to prevent persistent negligence may result in continual regulatory noncompliance.

Secondly, the Thai maritime shipping framework does not have penalties for violations of operational standards other than those relating to the transportation of dangerous goods by ships[111]. While ship survey regulations, authorised by sections 163 and 163/1 of the NWA 1913, establish operational standards for maritime safety and pollution prevention, allowing the MD to issue certificates based on prescribed rules, criteria, and conditions, the NWA 1913 lacks provisions for sanctioning violations of these standards, particularly operational ones, beyond certificate withdrawal.[112] Violations of operational standards are generally difficult to detect since it is highly possible to violate these standards when ships are sailing at sea. Unless the state has efficient mechanisms for detecting violations of these standards and appropriate measures for discontinuing the violation, ships might not be operating following these standards at sea.

Thirdly, criminal penalties for some offences are inappropriate and/or disproportionate. The use of criminal penalties as a second-tier enforcement tool to punish violators

[109] The 1913 NWA has been amended 17 times. According to the explanatory notes and content of the amendment instruments, the Act has been amended a few times to implement international shipping standards. The latest enactment was in 2017. See the changes in inflation rates in the United Nations Conference on Trade and Development, 'Maritime Profile: Thailand' <https://unctadstat.unctad.org/countryprofile/maritimeprofile/en-gb/764/index.html> accessed 15 August 2022. See also World Bank, 'Inflation, consumer prices (annual %) – Thailand' <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?end=2021&locations=TH&start=1960&view=chart> accessed 15 August 2022

[110] NWA 1913, Section 139, 160

[111] NWA 1913, Section 189-196

[112] Generally, the MD can withdraw the relevant certificates given to the ship when it violates the conditions specified in the certificates. See NWA 1913, Section 139, 160, 170.

who violate administrative orders in certain cases, such as a corrective order on non-serious deficiencies[113] under the NWA 1913[114], might also be inappropriate and disproportionate for enforcing international shipping standards. Without the opportunity to prove due diligence[115], violating the order would be subject to a very small fine, imprisonment, or both[116] and might be named in the criminal record[117]. The criminal penalties for violations of some administrative orders might be disproportionate to the seriousness of the regulatory noncompliance, taking into consideration the size and financial status of the violators and the opportunities to prove the due diligence actions to prevent the violations.[118] The use of a criminal offence as a second-tier sanction could also damage the reputation of the violators through a criminal record, despite the fact that the primary offences may be non-serious. Hence, the criminal penalties may be inappropriate for some regulatory noncompliance. If the enforcement tools are inappropriate or disproportionate to the non-compliance activities, the enforcement of relevant offences might not be able to act as a deterrent. Moreover, imprisonment for violations of any orders might also be inappropriate, particularly when Thai ships commit an offence outside territorial jurisdiction. Yet, criminal penalties can generally be imposed on any person by the court of justice.[119] It must also be kept in mind that criminal legal proceedings would be time-consuming for the MD, the police, and offenders.[120] Particularly, the

[113] NWA 1913, Section 139, 160

[114] NWA 1913, Section 297

[115] Although a court might consider the "intention" of offenders following the general principle of the Penal Code to determine the violation, the consideration of "intention" may be varied and inconsistent among courts and may neglect the actions that should be considered due diligence as a proof of unintentional violation. See Criminal Code, Section 59.

[116] See, e.g., NWA 1913 , Section 297, para.1.

[117] The cases which have been settled through monetary fines and the cases met criteria will be deleted from the criminal record. See Royal Thai Police Regulations on practices irrelevant to criminal cases, part 12 on fingerprint (No.14) B.E.2561 (2018).

[118] Richard B. Macrory, *Regulatory Justice: Making Sanctions Effective* (2006), at para.2.11

[119] Generally, there are two cases of which criminal offences can be settled outside the court of justice. Firstly, the case when an offender pays the maximum fine for any offences which have only monetary penalties. Secondly, offences which can be settled by virtue of laws by a competent authority. See Criminal Procedure Code 1956, Section 28, 37(1), (4).

[120] In practice, the legal proceedings for minor offences required to be established before municipal courts generally takes from less than a month up to 3 years while serious offences took up to 5 years. These periods were applicable to the cases established at the courts of the first instance, hence the appeals before the court of appeal and supreme court would take longer period. See The Law for the Organization of the Court of Justice 2000, section 17, 24, 25(5); Thai Court of Justice, '3.28 Numbers

financial costs of litigation compared to the small fines may discourage offenders from complying with the orders, resulting in the risk of marine incidents or pollution.

These challenges are also applied to the use of criminal penalties as a primary means for enforcing some violations under NWA 1913 and TVA 1938. The strict limit of fines provided in the primary legislation requires regular updating of penalties following changes in monetary values and economic benefits from noncompliance. Hence, the time-consuming amendment of the Acts could make the fines disproportionate to violations from time to time. Moreover, the range of monetary penalties for some offences might be too limited, which restricts the discretion of courts to impose proportionate fines on offenders by considering the harm to the marine environment and the financial position of the offenders.[121]

Recent developments may offer a different approach to these issues. The Regulatory Fines Act 2022 (RFA 2022), which will come into force in late 2024, has been introduced as a general framework for authorising administrations to impose regulatory fines in lieu of administrative and criminal fines. This act allows the regulators to impose the regulatory fine as a monetary sanction on persons who violate the offences, which are non-serious, provided that the violations do not have serious impacts on public order or good morals and have a largely positive impact on the public.[122] The RFA 2022 is also applied to TVA 1938 by automatically changing the existing offences having only criminal fines to the fines under this Act, but the fines are very low and do not apply to violations of shipping standards, particularly those relating to pollution prevention. Yet, the use of regulatory fines under RFA 2022 could save the time and expense involved in criminal litigation. Nonetheless, the Act uses criminal penalties as a second-tier enforcement tool when an offender objects to paying the fine, in accordance with the procedure prescribed in the criminal procedural law,[123] meaning that the costs of time-consuming litigation for the state

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of Criminals Having Been Punished by Municipal Courts in 2020', *Annual Judicial Statistic 2020* (Thai Court of Justice 2020), at p. 478, 534.

[121] For instance, the monetary penalties for shipowners and master of a ship discharging hazardous substance into the seas have never been amended since 2018.
TVA 1938, Section 53/1, 67/1

[122] Regulatory Fines Act 2022 (RFA 2022), Preamble, Section 9

[123] RFA 2022, Section 23

and offenders may nevertheless remain if an offender refuses to pay or wishes to challenge the fine.

Enforcing international standards through the establishment of measures and penalties requires a comprehensive understanding of the highly technological and dynamic nature of the shipping industry. This necessitates adequate human resources, technical expertise, and financial capacity to identify and determine appropriate measures and penalties that effectively implement IMO treaties and deter violations, particularly those related to ship-source pollution prevention. These qualities might be difficult to achieve by some states, especially developing countries, including Thailand, unless the legal framework has sufficient enforcement tools and uses appropriate regulatory strategies to help them overcome technical and resource constraints.

6.3.3 The poor framework for enforcement

As required by the III Code[124], states have to establish the national system for enforcing regulatory standards, leaving the states to adopt appropriate mechanisms to execute the national maritime strategy, which also aims to achieve effective enforcement. The deficiencies in enforcement revealed in the audit reports[125] also reflect that many states do not have proper enforcement mechanisms. These might include the lack of enforcement policy and proper strategies, particularly regulatory strategies for executing enforcement power and employing appropriate enforcement tools.

While the ambulatory reference technique discussed previously offers a valuable tool for states to transpose international shipping standards into their national legal frameworks, the legal basis deficiency explored here stems not from the dynamic nature of the standards, but rather, in part, from the absence of a robust enforcement framework aligned with the state's enforcement policy and strategies.

[124] See the discussion in Section 6.2.5 above.

[125] The IMO audit reports reveal that the challenges, as explored above, are mainly caused by a lack of technical capacities, including sufficient personnel with technical knowledge and expertise for enforcing the international standards. See IMO (Circular Letter No.3772) (n 99), at para.410, 443,587, 611; IMO (Circular Letter No.3879) (n 99), at para.253, 280, 415, 418; IMO (Circular Letter No.4028) (n 99), at para.259, 343, 493; IMO (Circular Letter No.4317) (n 99), at para.361, 583, 685, 754, 757, 781; IMO (Circular Letter No.4442) (n 99), at para.130, 211, 244.

The latter problem might also result in the inappropriate use of enforcement tools. To illustrate problems with the establishment of a national system for enforcement, the practice of Thailand in establishing enforcement mechanisms, along with the enforcement policy and strategies, will be given as an example.

It is also worthwhile to note that, in March 2022, Thailand established "The Strategic Plan for the Implementation of IMO Instruments"[126] as required by the III Code[127], which recognises the promotion of the development and improvement of national laws within the national context and legislative coherence while also promoting public participation in law-making. The plan emphasised the efficiency and effective implementation and enforcement of IMO instruments with the underlying principle of transparency, particularly public access to laws and regulations and other information relating to the implementation of international obligations, and also underlined the need to implement this strategy in accordance with the III Code.[128] Hence, the enhancement of the performance of national agencies as the flag state and the enforcement of IMO instruments are parts of the goals underlined by this Strategic Plan.[129] However, to date, information on flag state enforcement statistics and data, including prosecutions, has not yet been published.

In addition to amending the existing legal framework for maritime shipping to comply with relevant IMO instruments, the Strategic Plan identifies the use of appropriate penalties as a crucial action required to achieve this goal.[130] While the effective enforcement of regulatory standards is not explicitly mentioned, Thailand's concern over appropriate penalties for enforcing national legislation signifies its intention to effectively implement and uphold its maritime laws. This commitment is further underscored by the principles of transparency and effectiveness in the state's performance, demonstrating Thailand's adherence to IMO conventions relating to

[126] The Strategic Plan has been developed by the MD in cooperation with 15 agencies that are relevant to the implementation and enforcement of IMO conventions to which Thailand has been a party and will ratify in the future. See Sub-committee on the Setting and Management of the National Strategic Plan for the Implementation of IMO Instruments (SEM), *The Strategic Plan for the Implementation of IMO Instruments* (2022).
[127] Resolution A.1070(28) (n 12), Annex, at para.3
[128] Resolution A.1070(28) (n 12), Annex, at para. 9.2, 9.3
[129] SEM (n 126), at para.10.3
[130] SEM (n 126), at para.11.3

maritime safety and pollution prevention[131]. Yet, the approaches and mechanisms to enforce national laws effectively are left to the practices of government agencies. This means that the national strategic plan will be effective, provided that the state also adopts appropriate enforcement mechanisms to activate the strategic plan.

To date, Thailand has not had official strategic directions or employed appropriate mechanisms for enforcing national legislation. Furthermore, the lack of legal basis, especially the insufficient powers for enforcement on Thai ships outside the territorial jurisdiction, suggests that Thailand has never had to exercise enforcement power outside the territorial jurisdiction and may even lack mechanisms to monitor Thai ships sailing overseas. The latter problem also shows that the existing enforcement framework, which consists of the enforcement tools of the NWA 1913, the TVA 1938, and the PCA 1979, is ineffective, while the monitoring system should be enhanced and regularly reviewed. The insufficient and inconsistent execution of enforcement measures and penalties also reflects the lack of strategies to choose and develop appropriate measures and sanctions for deterring future violations of regulatory standards. Thus, Thailand needs to improve the existing enforcement tools by adopting regulatory strategies for determining appropriate enforcement mechanisms and providing strategic means for executing the enforcement tools.

It is worth noting that the poor technical capacity of Thailand in enforcing the national legal framework[132], particularly the ability to acknowledge the relevant theoretical concepts behind IMO treaties, also contributes to the challenges of Thailand in the enforcement of national legislation. Albeit these challenges could be solved through actions other than regulatory ones, the challenges of the state in regulatory enforcement should also be monumentally relieved by regulatory solutions.

6.4 Strategies for national enforcement and good practice

To provide suggestions for states to solve their challenges in enforcement, it is necessary to explore the general strategies or approaches for enforcement and look

[131] SEM (n 126), at para.9.2, 9.3

[132] The voluntary audit of Thailand through VIMSAS conducted in 2007 also revealed that Thailand has inadequate technical and legal experts for legal drafting and enforcing international standards, in addition to ineffective administrative work and functions in implementing the treaties.

into the general application of these approaches before analysing how these approaches could be applied in the maritime context by looking into the case of the UK maritime enforcement framework, which has long been established and developed its legal framework and its enforcement as an example of good practice.

6.4.1 General approaches

The establishment of a national strategic framework as suggested by the III Code, which is the overall strategy for implementing international obligations under major IMO treaties, might enhance the possibility of achieving compliance within a state. By establishing the strategic framework as a national policy framework, the strategies might legitimise the power of legal authorities in developing a national legal framework, including enforcement strategies, by allowing the authorities to perform their work. Tyler and Jackson observed that "the right to exercise power is typically reflected in people's authorisation of legal authorities".[133] The development of a national legal framework within the context of an agreed-upon national policy could therefore make the legal framework legitimate. These authors also observed that legitimacy, which could promote behavioural changes toward legal compliance, involves "the public recognition that the social orders need a system of laws that generate compliance".[134] Thus, the principle of transparency should be applied when the national strategic framework has been adopted and in other stages of implementing the national strategic framework.

Considering the main challenge of treaty noncompliance was the limited financial and personnel resources available to enforcement agencies, including those of developing countries[135], it became necessary to use their assets more strategically. Moreover, reliance on criminal prosecution was both financially expensive and took significant time away from other duties for those involved in the process. States should therefore establish a strategic framework for enforcement aligned with the national strategic framework, which consists of multiple stages, to allow the states

[133] Tom R. Tyler and Jonathan Jackson, 'Popular Legitimacy and the Exercise of Legal Authority: Motivating compliance, Cooperation and Engagement' (2013) Psychology Public Policy and Law 1, at p. 2-3

[134] Ibid.

[135] See the investigation of challenges for national enforcement in the previous section.

to be in a position and have the capabilities to effectively enforce the national legal framework.[136] Bearing in mind that legitimacy and the principle of transparency should be observed, the enforcement framework should enable the state to set out appropriate measures, mechanisms, and penalties while also possessing the legal authority to exercise its enforcement power. This framework should also be made available to the public. In this regard, Macrory, in his review of regulatory compliance in the UK, suggested that the publication of a strategic framework for enforcement, which provides "the general approach to enforcement and compliance by organisation, as well as the key principles and factors that will guide decision-making while recognising the discretion that exists on a case-by-case basis," can assist states in choosing and applying their enforcement powers consistently.[137]

There are four main approaches to enforcement that have been employed among states, including the UK, following the aforementioned review. Although they might need to be adapted to different national contexts, it is necessary to examine the core concepts of these approaches before delving into the practice of a state to ensure that states can adopt these approaches appropriately.

(1) Cooperative approach

The core notion of this approach is to encourage voluntary compliance through cooperative and conciliative means such as giving advice, establishing cooperation with relevant stakeholders, especially those subject to enforcement, promoting self-regulation, or providing technical assistance or education to the stakeholders.[138] To ensure that regulated industries acknowledge, accept, and perceive regulatory standards, the communication of information between regulators and regulated industries is therefore a key factor contributing to the achievement of this

[136] Resolution A.1070(28) (n 12), Annex, at para.3, 8

[137] Macrory (n 118), Annex A. See also James Harrison, *Enforcement of fisheries law in Scotland: an analysis of current law and practice with recommendations for reforms* (2021), at p. 9-10.

[138] Reloy C. Paddock, 'Compliance and Enforcement Strategies', in *Advanced Introduction to Environmental Compliance and Enforcement* (Edward Elgar Publishing 2021), at p. 24. See also Neil Gunningham (a), 'Enforcing Environmental Regulation' (2011) 23 Journal of Environmental Law 169, at p. 176; Niel Gunningham (b), 'Strategizing compliance and enforcement: responsive regulation and beyond' in Christine Parker and Vibeke Lehmann Neilsen (ed), *Explaining Compliance: Business Responses to Regulation* (Edward Elgar 2011), at p. 200-201; Malcolm K. Sparrow, 'Ideas', in *The Regulatory Craft: Controlling Risks, Solving Problems, and Managing Compliance* (Brookings Institution Press 2000), at p. 34.

approach.[139] Notably, some authors, such as Gunningham[140] and Paddock[141] refer to this as an "advice and persuade" approach or an "advice and persuasion" approach, respectively, while Sparrow[142] calls it enforcement management. The enforcement mechanisms that apply this approach are, for instance, informal and formal warnings and administrative orders.

Whatever it is called, this approach, which has been applied to environmental regulations and shipping regulations[143], could prevent violations[144] while alleviating burdens on enforcement personnel, monitoring, and litigation[145]. Nevertheless, it might be effective only for those willing to comply with regulatory standards[146], meaning that this approach alone might not be able to prevent all potential violations. Therefore, the selection of this approach might require preliminary identification of potential violators who might or might not want to comply with regulatory standards.

(2) Deterrence approach

This approach, or so-called "rules and deterrence" approach, is rather coercive than cooperative. [147] By focusing on punitive sanctions as a strong mechanism with the aim of changing future noncompliance behaviours[148], regardless of the intentions and capacities of violators for complying with regulatory standards, this approach reassures all regulated industries that none of them would escape from this mechanism[149], hence no one would avoid the penalties.

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[139] Paddock (Ibid.), at p. 24
[140] Gunningham (b) (n 138), at p. 200
[141] Paddock (n 138), at p. 25
[142] Some authors, such as Sparrow, refer to this approach as a part of managerial methods. See Sparrow (n 138), at p. 33-34
[143] For example, Australia uses communication and education, while the Maritime Coastguard Agency of the UK uses Notification of Concern as a means to prevent regulatory violations. See Gunningham (a) (n 138), at p. 176-177; Maritime and Coastguard Agency (MCA), 'MCA Enforcement Policy Statement' <https://www.gov.uk/government/publications/mca-enforcement-policy-statement/mca-enforcement-policy-statement > accessed 20 September 2022
[144] Gunningham (a) (n 138), at p. 174
[145] Paddock observed that this approach is appropriate for those lacking resources to conduct inspections and investigations before initiating legal proceedings. See Paddock (n 138), at p. 24.
[146] Paddock (n 138), at p. 24
[147] Paddock (n 138), at p. 25; Gunningham (a) (n 138), at p. 173
[148] Gunningham (a) (n 138), at p. 174
[149] Gunningham (b), (n 138), at p. 201

This adversarial approach, however, has some significant limitations. Gunningham observed that it was an extreme approach, contrary to the cooperative approach[150]. Firstly, penalties will be imposed only when violators are detected, meaning that it requires efficient means for detection of violations; otherwise, it allows regulated industries to develop "a culture of regulatory resistance"[151]. As such, the resources for monitoring, investigation, and prosecution are also needed.[152] Secondly, the preventive objective will be effective provided that potential violators have sufficient capabilities to comply with the law.[153] So, it might not be able to prevent potential violators who have incapabilities from complying with the law since it does not provide technical assistance for filling the incapability gap. Thus, it requires effective mechanisms to monitor and identify intention, motivation, or even reasons for violations; otherwise, sanctions, particularly criminal sanctions, may be disproportionately applied to the violations. Thirdly, the penalties must be severe enough to prevent potential violators from breaking the law; hence, this approach requires the use of appropriate and proportionate sanctions. Otherwise, this approach would be ineffective for potential violators having financial benefits from violations over the costs of being prosecuted and penalised, therefore failing to reassure the other regulated persons having higher competitive advantages[154]. Gunningham observes that deterrence is likely to be more effective for enforcing small organisations than bigger organisations and is applied to regulations relating to the protection of human health and the environment.[155] Even then, a range of sanctions should be available.

It follows that this approach alone might be inadequate for ensuring compliance with regulatory standards. The challenges of this approach underline the use of alternative or supplementary means for enforcement. For example, the UK used to

[150] Gunningham (b) (n 138), at p. 201
[151] Gunningham (b) (n 138), at p. 201
[152] Paddock (n 138), at p. 25
[153] Paddock (n 138), at p. 26
[154] Neil A. Gunningham, Dorothy Thornton, and Robert A. Kagan, 'General Deterrence and Corporate Environmental Behavior' (2005) 27 Law and Policy 262, at p. 266
[155] In addition to the US, the UK also applied this approach to the environmental field. See Gunningham (a), (n 138), at p. 175; Keith Hawkins, 'Bargain and Bluff: Compliance Strategy and Deterrence in the Enforcement of Regulation' (1983) 5 Law and Policy Quarterly 35, at p. 57-58.

apply this approach as a second mechanism after the cooperative approach had failed.[156] This approach was used as the main approach for the US agency, supplemented by monitoring mechanisms to detect violations.[157]

(3) Responsive approach

The core concept of this approach, which incorporates elements from the cooperation and deterrence approaches, is to react to noncompliance to the extent that the violators have bad faith in compliance with laws or regulations. By using the cooperative approach in response to violators or potential violators at an initial stage while holding serious punishment as a strong response, as illustrated in an enforcement pyramid in ***Figure 9***[158], Ayres and Braithwaite observed that regulators can use a cooperative approach at the bottom of an enforcement pyramid with violators who are incompetent or do not intend to violate regulations whilst also saving the financial costs and reducing the burdens of enforcement personnel.[159] They suggested that the more mistrust of violators, the higher the severity of the enforcement means toward deterrence.[160] The less trustworthiness of violators, the more frequency of monitoring should also be done.[161] Notwithstanding, it should be observed that the seriousness of enforcement means in the enforcement pyramid is likely to be considered based on the deterrent effect on regulated persons. Obviously, the revocation of a license at the top of the pyramid has a monumental impact on the regulated company, particularly its economic impact, while preventing future violations.

[156] Hawkins (Ibid.), at p. 58
[157] Paddock (n 138), at p. 27
[158] Ian Ayres and John Braithwaite, 'The Benign Big Gun', in *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University Press 1992), at p. 21, 35
[159]Ibid., at p. 26, 50-51
[160] Ayres and John Braithwaite (n 158), at p. 34-35
[161] Ayres and John Braithwaite (n 158), at p. 38

Figure 9 An enforcement pyramid model

Gunningham[162] also observes that the use of this approach would help regulators choose appropriate enforcement strategies in response to the "motivations and capacities" of regulated entities, such as "leaders, reluctant compliers, recalcitrant, or incompetent," thus promoting compliance and deterring noncompliance. Hawkins suggested that prosecution should be applied when negotiations for persistent failures to comply with environmental regulations are "irretrievable breakdown[s]".[163]

Ayres and Braithwaite observe that this approach is appropriate for applying to "industries where technological and environmental changes occur so quickly that the regulations that give detailed content to the law cannot keep up to date," for example, those relating to occupational health and safety and the environment.[164] This approach could therefore be applied to regulatory standards relating to maritime safety and ship-source pollution prevention.

This "tit-for-tat" [165] or "deterrent-oriented" [166] approach, although providing an alternative approach in lieu of the inflexible rules of the deterrent approach,[167] can be applied with some observations. Firstly, the use of a persuasive approach as the primary step might be an inappropriate response to serious offences that can pose high risks to maritime safety or the environment and require an immediate and strong response. Braithwaite therefore suggested that the target strategy may be an

[162] Gunningham (b) (n 138), at p. 201-202
[163] Keith Hawkins, 'Compliance Strategy', in *Environmental and Enforcement: Regulation and the Social Definition of Pollution* (Oxford University Press 1984), at p. 106
[164] Ayres and Braithwaite (n 158), at p. 36
[165] Ayres and Braithwaite (n 158), at p. 19
[166] Gunningham (b) (n 138), at p. 202
[167] Paddock (n 138), at p. 27-28

alternative means to the responsive approach, by identifying regulated entities and choosing appropriate responses, which might be the intervention at the middle or top of an enforcement pyramid.[168] So, it might be preferable for enforcing serious and persistent crimes than the responsive approach.

Secondly, the assumption that violators will change their behaviours when regulators carry a big stick might be appropriate only for some violations since noncompliance can be caused by a variety of reasons, for which the responsive approach may not be suitable or ineffective. Braithwaite noticed that the use of persuasive means might even waste resources and be ineffective if regulated industries are "irrational or unresponsive".[169] Mendeloff argued that the use of a cooperative means at the bottom of an enforcement pyramid, while carrying a strong sanction as a backup, might be ineffective since there are a variety of factors other than mutual agreement on compliance.[170] These factors, which include the resources for monitoring, the detection of violations, the reasonableness of regulatory standards, and the penalty structure, could affect the effectiveness of enforcement. This author also noted that progressive enforcement, which prioritises the cooperative approach, may cause excessive use of persuasion while lacking the capabilities and resources to evaluate and determine when the stronger measures should be applied.[171] Moreover, a wide range of enforcement means in the bottom-up enforcement pyramid also require available mechanisms such as alternative sanctions, enforcement discretion, or investigative power in the legislation, allowing regulators to climb up or down the pyramid.[172] Yet, this challenge reflects the need to use other strategies that could help regulators accurately identify violations and potential violators and decide to use appropriate tools to enforce regulations. Thus, the effectiveness of this approach also relies on the monitoring strategies and capabilities of regulators, which include

[168] John Braithwaite, 'Responsive Regulation', in *Restorative Justice and Responsive Regulation* (Oxford Uniersity Press 2001), at p. 36-40
[169] Martin Cave and Martin Lodge Robert Baldwin, 'Responsive Regulation', in *Understanding Regulation: Theory, Strategy, and Practice* (Oxford University Press 2011), at p. 260-261
[170] John Mendeloff, 'Overcoming Barriers to Better Regulations' (1993) 18 Law and Social Enquiry 711, at p. 717
[171] Cave, Lodge and Baldwin (n 169), at p. 263
[172] Cave, Lodge and Baldwin (n 169), at p. 264

the capability to communicate with regulated industries through dialogue and the adequacy of inspection resources. [173]

(4) Risk-based approach

The risk-based approach focuses on the use of enforcement measures and penalties in response to risks, including risks to the environment that result from noncompliance. The extent to which the measures or penalties should be used depends upon the degree of the risks. [174] This approach could alleviate the constraints of enforcement resources since regulators could allocate appropriate time and resources more efficiently while maximising the outcomes. [175] However, there might be some difficulties in applying this approach since it would be effective when risks are accurately identified [176] and appropriately managed, meaning that regulators should have capabilities and strategies for targeting risks and choosing appropriate interventions to manage the risks while also ensuring that unhidden risks would be detected. [177] This approach has generally been applied to regulations relating to health, safety, and environmental protection. [178]

6.4.2 Strategies to overcome challenges in the enforcement of national legal framework

(1) Verification of regulatory compliance and detection of violations

Bearing in mind that ships are floating objects, the mechanisms for detecting violations of regulatory standards should be flexible and cost-saving while also having high potential for identifying the noncompliance of the movable objects. Hampton suggests that using a risk-based approach, underlined by the principle of transparency, for the inspection by introducing the risk assessment could help states

[173] See Paddock (n 138), at p. 28; Sparrow (n 138), at p. 41. See also Christine Parker, 'Compliance Professionalism and Regulatory Community: The Australian Trade Practices Regime' (1999) 26 Journal of Law and Society 215, at p. 223.
[174] Paddock (n 138), at p. 31
[175] Julia Black, 'The emergence of risk-based regulation and the new public risk management in the United Kingdom' (2005) Public Law 512, at p. 517. See also Philip Hampton, *Reducing administrative burdens: effective inspection and enforcement* (2005), at p. 4-5.
[176] Fiona Haines, 'Facing the compliance challenge: Hercules, Houdini or the Charge of the Light Brigade?' in Christine Parker and Vibeke Lehmann Neilsen (ed), *Explaining Compliance: Business Responses to Regulation* (Edward Elgar 2011), at p. 283
[177] Cave, Lodge and Baldwin (n 169), at p. 285
[178] Black (n 175), at p. 515-516

efficiently allocate resources for targeting risks while maximising regulatory outcomes.[179] This means that merely conducting periodic surveys and inspections as required by IMO conventions when ships are anchoring at ports may be inadequate for ensuring that violations are discovered.

In the maritime shipping context, the risk-based approach might be the most appropriate and optimal means for the control and monitoring of flag states since it could help states identify potential risks of noncompliance at the lowest costs with the maximum opportunities. Notwithstanding, states might require policies, strategies, and supplementary programmes as necessary to strengthen the execution of risk-based strategies, resulting in the effective detection of regulatory noncompliance and reducing the risks of further noncompliance. However, states should be cautioned that the identified risks might change depending on the circumstances. Hampton suggested that states should conduct random inspections to ensure the validity of the existing risk assessment system, while Baldwin and others suggested that states should institutionalize a dynamic process for identifying new or emerging risks.[180] Moreover, the delegation of enforcement powers to third parties, particularly ROs, should also be established strategically to relieve states from technical and resource constraints.

To illustrate how the risk-based approach can be applied, the UK legal framework and policies will be explored. Firstly, the UK adopted risk-based strategies with the surveys and monitoring. By providing enforcement jurisdiction in MSA 1995 and SIs and relevant powers to perform survey and inspection of ships, including detailed practices, in accordance with regulatory standards in each SI, the state can ensure that flag state surveyors and inspectors can perform ship surveys and inspections on UK ships based on risk-based strategies embedded in each single SI[181] while they are sailing outside the UK territorial seas following the survey and inspection

[179] Hampton (n 175), at p. 4-5, 115, 118

[180] See Hampton (n 175), at p. 32; Martin Cave and Martin Lodge Robert Baldwin, 'Risk-based Regulation', in *Understanding Regulation: Theory, Strategy, and Practice* (Oxford University Press 2011), at p.289.

[181] For example, regulation 32 of the 2018 Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations provides the lists of actions that should be taken in the inspection of ships under Annex II of MARPOL.

programmes, in addition to the mandatory surveys and inspections as required by IMO conventions.[182]

Since 2011, the Maritime Coastguard Agency (MCA), which is the UK agency under the Department for Transport having competency in law-making and enforcement of the national maritime shipping framework[183], has been advised by the National Audit Office to adopt a risk-based strategy, including the increase in inspections based on categories of ships, the conduct of random inspections, and the increase in surveys and inspections at sea other than at ports to ensure that the verification of compliance has been executed professionally and the ships meet the standards.[184]

The MCA adopted the 5-year Survey and Inspect Transformation Programme (SITP) in 2015 to improve the survey performance following the suggestions from the Maritime Growth Study [185] while providing good services to the shipping industries.[186] The MCA has changed the Marine Office branches and modernised the enforcement practices by improving IT services, including the introduction of the "eCertificate" system, recruiting new surveyors, and developing the internal information management system to facilitate the work of surveyors.[187] The SITP had been done upon public consultation to help the MCA identify the targets for improvement.[188] The opportunities given to the public to engage with the problem-

[182] MSA 1995 clearly dedicates Part X of the Act on enforcement officers and powers to providing powers to authorised officers to enforce the law. This includes the power given to authorised inspectors to inspect the regulatory noncompliance of UK ships, regardless of where they are located. See MSA 1995, section 85(1)(a), (1A), (1B), (2), 128(3)(d), part X.

[183] See the lists of responsibilities of the MCA in the Government of the United Kingdom, 'Maritime and Coastguard Agency' <https://www.gov.uk/government/organisations/maritime-and-coastguard-agency/about'> accessed 15 July 2023

[184] National Audit Office, *Ship Surveys and Inspections: executive summary and recommendations* (2011), at para.11-14

[185] Department of Transport, *Maritime Growth Study: keeping the UK competitive in a global market* (2015)

[186] Maritime and Coastguard Agency (MCA), *A Consultation on Changes to MCA Survey and Inspection Marine Office Locations* (Maritime Coastguard Agency 2016), at p. 2

[187] Ibid., at para.1.2.1, 1.3.1, 2.1.2, 2.1.6, 3.3.1. See also Maritime and Coastguard Agency (MCA), *Maritime & Coastguard Agency Survey & Inspection: News and updates on the changes in the way we work, Spring 2019* (Maritime and Coastguard Agency 2019); Maritime and Coastguard Agency (MCA), *Maritime & Coastguard Agency Survey & Inspection: News and updates on the changes in the way we work, Autumn 2019* (Maritime and Coastguard Agency 2019).

[188] Maritime and Coastguard Agency (MCA), *Maritime & Coastguard Agency Survey & Inspection: News and updates on the changes in the way we work, Winter 2017* (Maritime and Coastguard Agency 2017)

solving strategy could assist the state in improving the internal enforcement system appropriately. The SITP also reflects that the national systems or supplementary programmes should also be established to support the enforcement and supplement the execution of enforcement powers embedded in the national legislation to ensure that the enforcement would be effective and appropriate for deterring future violations.

The information policy strategies have also been used to strengthen enforcement, in addition to the SITP. By publicising the detailed practices for the surveys or inspections prescribed in each SI,[189] this information strategy could help ensure that regulated industries understand how ships would be inspected and therefore carefully implement regulatory standards. Moreover, the MCA was also recommended to develop the internal information system to support the work of surveyors and ensure that the surveys and inspections have been done on appropriate targets.[190]

The cooperative approach has also been employed. The surveyors are also provided with the power to give advice to the owner or master to correct the deficiencies and can suspend the validation of the relevant certificate until the ship meets the standards required. [191] The set of enforcement powers stipulated in each SI concerning ship survey and certification, readily accessible through both government and MCA websites, provides valuable guidance to regulated entities, aiding their understanding and compliance with the regulations. Moreover, these SIs equip the regulator with sufficient enforcement power to ensure that the verification of regulatory compliance through relevant certificates is conducted with due diligence. As such, the powers given to the enforcement authorities could ensure that

[189] For example, the Merchant Shipping (Survey and Certification) Regulations 2015, issued by virtue of section 85(1),(3) of MSA 1995

[190] Ibid., at para.18

[191] For instance, regulation 17 of the Merchant Shipping (Prevention of Oil Pollution) Regulations 2019 specifies the power of the competent authority to order the corrective actions of specified persons and even have the power to withdraw the certificates of the ship when the order is not complied with within a specified period. See Merchant Shipping (Survey and Certification) Regulations 2015 (SI 2015/508), Reg.12; Merchant Shipping (International Load Lines Convention) (Amendment) Regulations 2018 (SI 2018/155), Reg.20; Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008 (SI 2008/2924), Reg.16; The Merchant Shipping (Control and Management of Ships' Ballast Water and Sediments) Regulations 2022 (SI 2022/737), Reg.35.

violations of regulatory standards no longer continue while reducing the risks of further violations at sea. It is worth noting that the exercise of the enforcement power, however, might be subject to arbitration upon request of the regulated entities[192], reflecting the attempt to control the use of discretion by the enforcement authority.

It is also worthwhile noting that, in practice, the UK also establishes a screening system for ensuring that any offences found by inspectors will be prosecuted only when it is necessary to deter future violations, meaning that the UK applies the deterrence approach to the prosecutions with precaution. The MCA has established specialised teams known as "Regulatory Compliance Investigation Teams (RCITs)" to investigate "significant breach[es]" of the MSA 1995. These breaches are identified through reports and investigations and involve violations of legislation related to ships, watercraft, seafarers, or other water users, which have caused or have the potential to cause loss of life, serious injury, significant pollution, damage to property or the environment, or impede the MCA's statutory functions.[193] A case considered to be a serious breach by the team would be reviewed by the head of the team and later determined by the Director of Finance and Audit, on behalf of the Secretary of State, whether criminal proceedings should be initiated[194], taking into consideration the Code for Crown Prosecutors, which provide general principles for prosecution.[195] Furthermore, the MCA also uses an information strategy by publicising the prosecution outcomes on its website.[196]

Secondly, the UK also delegated the authority to conduct surveys and inspections, and issue relevant certificates, in compliance with the major IMO conventions, including SOLAS 1974, the Protocol 1988 to Load Lines 1966, and MARPOL 1973/1978, to ROs, through the Merchant Shipping Notice MSN 1672 on Ship Inspection and Survey Organisations (Amendment 4) (MSN 1672). This secondary

[192] SI 2015/508 (Ibid.), Reg.28; SI 2008/2924 (Ibid.), Reg.17; SI 2022/737 (Ibid.), Reg.36.
[193] Maritime and Coastguard Agency (MCA), 'MCA Enforcement Policy Statement' <https://www.gov.uk/government/publications/mca-enforcement-policy-statement/mca-enforcement-policy-statement > accessed 20 September 2022
[194] Ibid.
[195] Maritime and Coastguard Agency (MCA), Consultation Document: Maritime Civil Sanctions Provisions (2021), Annex A, at p. 16
[196] MCA (n 193)

legislation provides criteria for recognising ROs, with reservations for limiting the number of ROs due to changes in the needs and excessive costs of MCA and taxpayers.[197] The ROs that have been authorised by the state are also listed in this MSN.[198]

MSN 1672 further ensures compliance by retaining the authority to oversee ROs in accordance with the requirements of IMO instruments, including the RO Code and the III Code, alongside relevant national legislation. This authority includes the ability to visit RO branches and conduct random inspections of vessels to verify adherence to shipping standards and monitor RO performance.[199] The UK also reserves the power to require ROs that fail to perform the authorised works efficiently to discuss and resolve the issues within the agreed period and also to impose monetary penalties on any RO that has failed to meet the relevant criteria or has performed poorly on a repetitive basis.[200] MSN 1672 also enables MCA to withdraw the authorisation of any RO based on the criteria provided.[201]

In practice, the UK establishes voluntary schemes for alternative surveys, based on risk-based strategies. The first scheme is the "Alternative Compliance Scheme," provided through Marine Guidance Note (MGN) 568[202]. Aligned with MSN 1672, this guidance presents the requirements of the scheme for ship owners, operators, and ROs. Under this scheme, ROs are authorised to perform ship surveys and issue relevant certificates, as required by the major IMO conventions outlined in MSN 1672, on ships that voluntarily participated in this scheme[203] while MCA[204] maintains the powers to inspect the ships as a part of port state control and conduct some particular audits, including the International Safety Management (ISM), International Ship and Port Security (ISPS), and Maritime Labour Convention (MLC) audits. However, the UK ships entering into this scheme must not have records of detentions

[197] Maritime and Coastguard Agency (MCA), '*Merchant Shipping Notice MSN 1672 on Ship Inspection and Survey Organisations (Amendment 4)'*, (2020) (MSN 1672), at para.5, Annex
[198] Ibid., at para.1.6
[199] MGN 1672 (n 197), at para.6
[200] MGN 1672 (n 197), at para.7
[201] MGN 1672 (n 197), at para.8
[202] Maritime and Coastguard Agency (MCA), '*Marine Guidance Note MGN 568 (M) on Surveys - Alternative Compliance Scheme*', (2017) (MGN 568)
[203] Ibid., at para.1.2, 2
[204] MGN 568 (n 202), at para.1.2, 3.2

or numerous deficiencies found by any port states before the entry 3 or 2 years, respectively, and meet the conditions as specified.[205] The restriction on the qualifications of ships reflects that the UK delegated the powers to survey and issue relevant certificates only to ships that were likely to have a low risk of being substandard.

As provided by Marine Guidance Note (MGN) 561, the Enhanced Authorisation Scheme (EAC) is another survey scheme that allows ROs to perform surveys on the UK ships participating in the scheme while reserving the powers to monitor and inspect the ships for the MCA.[206] In addition to performing surveys as those given by MGN 568, this scheme also delegated the powers to ROs to conduct the ISM, ISPS, and MLC audits[207] , while retaining the power to conduct flag state inspections for the MCA at regular intervals based on the risk profile of the ship[208]. The MCA can also remove the ship from the scheme and even revoke relevant certificates if the ship is considered high-risk.[209] However, this scheme is limited to certain ships engaged in international trade other than passenger ships, which are categorised as having "low" or "standard" risk by taking into consideration the multiple factors given in the MGN.[210] This scheme could therefore relieve the states of limited resources, particularly qualified surveyors.

In addition to these strategies illustrated by UK practice, states, especially developing countries, can employ other approaches to monitoring and inspection in order to increase the possibilities of identifying the risks of violations. By accepting the voluntary use of external standards such as ISO 14001[211] , which are the environmental management standards developed by a third party, as evidence of

[205] MGN 568 (n 202), at para.2.2
[206] Maritime and Coastguard Agency (MCA), '*Marine Guidance Note MGN 561 (M) on Surveys – Enhanced Authorisation Scheme*', (2017) (MGN 561), at para.1.3
[207] Ibid., Annex 2
[208] MGN 568 (n 202), at para.3.5
[209] MGN 568 (n 202), at para.3.4, 7.1
[210] MGN 561 (n 206), at para.2.1, 2.2, Annex 3
[211] ISO 14001 is the operational standard for environmental management.
See an example of how ISO 14001 can be applicable to the implementation of MARPOL in Panaitescu and Panaitescu. See Fanel-Viorel Panaitescu and Mariana Panaitescu, *An approach to the implementation of ISO 14000 at a shipping company* (2015). See also Peter N. Grabosky and Darren Sinclair Neil Gunningham, 'The Chemical Industry', in *Smart Regulation: Designing Environment Policy* (Oxford University Press 1998), at p. 201-281.

self-regulation in the shipping industry, which can reduce the risks of violations of operational standards, particularly those under MARPOL, states can recognise ships that voluntarily adopt ISO 14001 as low-risk ships under a risk-based inspection programme. These strategies could therefore assist states in minimising the workload of technical personnel while maximising the effectiveness of the outcome.

(2) The enforcement toolbox and the strategic execution of enforcement tools

Since regulatory standards relating to maritime safety and pollution prevention are applied to shipping industries, whose core concerns are related to making financial benefits from the shipping business in addition to compliance with shipping standards, the compliance performance of individual ships might have substantial economic impacts on their businesses.[212] The application of these enforcement tools should therefore consider the economic perspective on enforcement. The theoretical concepts of deterrence and economic relevance to enforcement should therefore be taken into consideration when providing a strategic framework for enforcement.

Since the seriousness of violations of regulatory standards may be varied, a wide range of enforcement tools should be available in the enforcement toolbox of a state. As observed by Ayres and Braithwaite and some other authors who promote responsive strategies, some minor violations or potential risks of noncompliance can be corrected or prevented simply by persuasive notices, while some violations may require a stronger approach to punishing the offenders. Macrory[213] suggested that, in general, the enforcement system should be developed by taking into consideration a set of penalty principles as follows:

(1) Changing the behaviour of the offender;

(2) Eliminating financial benefit from non-compliance;

(3) Being responsive and appropriate for the offender and the regulatory issue;

[212] See SSY Consultancy & Research Ltd., *The Cost to Users of Substandard Shipping* (2001), at p. 7-10; Helen Sampson and Michael Bloor, 'The effectiveness of global regulation in the shipping industry: a critical case study' (2012) 17 Revista Latino-americana de Estudos do Trabalho 45, at p. 48.
[213] Macrory (n 118), at p. 29-31, para.2.11

(4) Being proportionate to the nature of the offence and the harm caused by the offence;

(5) Aiming to restore the harm caused by the non-compliance; and

(6) Aiming to deter future non-compliance.

However, these functional principles for a sanctioning system would be achieved when regulators also established an operational framework for activating these functions. This framework requires regulators to observe the principle of transparency through multiple publications to signal to regulated industries and the public what possible enforcement actions are available and to justify decisions to choose enforcement tools by publishing an enforcement policy[214] and related annual enforcement strategies in response to enforcement actions executed each year[215]. Moreover, regulators should also follow up on enforcement actions as appropriate.[216] The framework also applies a risk-based approach by requiring regulators to measure the qualitative results of enforcement, focusing on the contribution of the chosen enforcement mechanism to regulatory compliance.[217]

These penalty principles reflect that the enforcement toolbox should have a variety of enforcement tools in the enforcement pyramid, ranging from persuasive enforcement to deterrent enforcement, to allow regulators to choose appropriate mechanisms in proportionate response to the violations.

The UK merchant shipping framework, for example, has a range of enforcement tools available based on a responsive approach and risk-based strategies. The MSA 1995, mostly through Sections 85 and 128,[218] gives the MCA the power to use several administrative measures while also having criminal sanctions available for dealing with serious offences, as illustrated in ***Figure 10***[219]. These enforcement tools include improvement notices, prohibition notices, directions following the notices and

[214] Macrory (n 118), at p. 32, para.2.12, characteristic 1
[215] Macrory (n 118), at p. 32-33, para.2.12, characteristic 3, 5
[216] Macrory (n 118), at p. 32-33, para.2.12, characteristic 4
[217] Macrory (n 118), at p. 32, para.2.12, characteristic 2
[218] MSA 1995, section 85(7), 128(3), (4), (5), (6)
[219] This pyramid is developed based on the responsive enforcement approach suggested by Ayres and Braithwaite and Macrory. See Ayres and Braithwaite (n 158); Macrory (n 118), at p. 8, para. E.12, Annex A.

orders to produce documents or inform matters relating to the ships, crews, and relevant documents to enforcement officers as specified [220], an order to make corrective actions in the form of an improvement notice[221], criminal penalties, and suspension or withdrawal of certificates issued in accordance with international shipping standards[222].

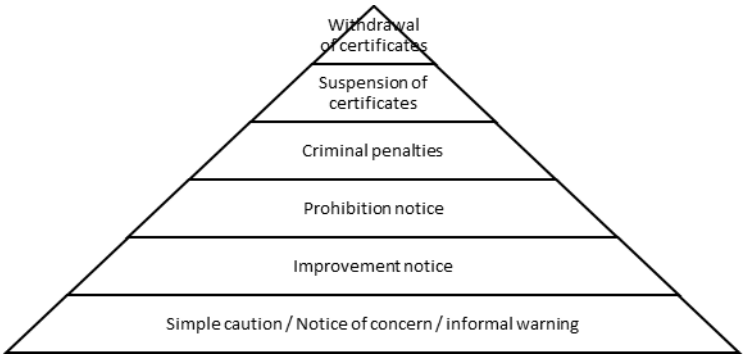

Figure 10 Enforcement tools under MSA 1995

It is ultimately up to states to determine appropriate enforcement tools for violations of regulatory standards. In line with the theory explained above, ideally cooperative strategies, at the bottom of the enforcement pyramid, should be applied in the first place to encourage shipping industries to comply with regulatory standards. Practical guidelines for the implementation of regulatory standards should be established and made available to the public following the publication of each regulatory instrument. This persuasive means could ensure that regulated industries acknowledge and understand regulatory standards uniformly. The UK government, through the MCA, has also adopted a similar approach to enforce UK shipping standards. This involves publishing all relevant legal instruments, including non-binding instruments known as "soft law." These instruments encompass Merchant Shipping Notices (MSNs), Marine Guidance Notes (MGNs), Marine Information Notes (MINs), Safety Bulletins, and other informative documents. These documents serve to provide information and guidance on the interpretation, application, and recommendations related to regulatory standards and best practices within the maritime industry.

[220] MSA 1995, Section 257(2), 258-259, 261-263, 266
[221] Merchant Shipping (Prevention of Oil Pollution) Regulations 2019 (SI 2019/42), Reg.17(1)
[222] These administrative sanctions are generally used in SIs. See SI 2019/42 (Ibid.), Reg.17(2)

To prevent potential noncompliance, states could also use cooperative measures such as informal warnings at the earliest stage before issuing formal warnings for repetitive noncompliant behaviours with non-serious regulatory noncompliance or formal advice. As suggested by Paddock[223], cooperative strategies might be effective for those who are willing to comply with the laws. States could also apply risk-based strategies with these cooperative measures by escalating enforcement with persistent noncompliance. For example, violations of regulatory standards by those who have previously been given formal warnings should be subject to stronger enforcement, such as sanctions or administrative measures. The latter measures, for example, an order to stop shipping operations or an order to correct deficiencies, should be provided in the enforcement toolbox.

As suggested by Ayres and Braithwaite in relation to responsive enforcement theories, enforcement tools at the top of the enforcement pyramid should be used in response to the most serious offences, which may have severe harmful effects. In maritime shipping, the ability of ships to service shipping industries is vitally important. Imposing incapacitation measures upon vessels, particularly through the suspension or withdrawal of certificates verifying compliance with international shipping standards or licenses for their operation, constitutes the highest sanction within the enforcement pyramid. This serves as a powerful deterrent against serious violations, especially those committed beyond the territorial jurisdiction of states where risk-based strategies might prove ineffective in detection. States can strengthen the deterrence effect of administrative measures by establishing criminal penalties[224] or administrative penalties, particularly suspension or revocation of licences or certificates[225] as the threat for violating the administrative measures. For instance, substandard UK ships that failed to take corrective action advised by the surveyors before proceeding to sea would be subject to the suspension or withdrawal of relevant certificates[226] while those that do not meet regulatory

[223] Paddock (n 138), at p. 28

[224] Carolyn Abbot, 'Administrative Sanctions and Deterrence', in *Enforcing Pollution Control Regulation: Strengthening Sanctions and Improving Deterrence* (Hart Publishing 2009), at p. 234

[225] Ibid., at p. 241-243

[226] See e.g. SI 2015/508 (n 191), Reg.12(1), (2); SI 2022/737 (n 191), Reg.35(2)(a), (3); SI 2019/42 (n 221), Reg.17(1), (2).

standards as specified might be subject to criminal penalties if they proceeded to sea[227].

As observed by Brudner[228], violations of regulatory standards, which aim to prevent risks to maritime safety and ship-source pollution, can be considered regulatory offences, which generally refer to actions breaching legislation aiming to prevent harm to public goods or deter excessive risk-taking, such as environmental regulations and transport-related safety regulations. Violations of regulatory laws should result in administrative sanctions. However, as suggested by Kidron[229], administrative enforcement tools should be executed upon the existence of excessive risks without proof of the mental states of offenders, which is the main criteria for executing criminal sanctions. Macrory[230] observed that administrative penalties could deter violations by diminishing financial benefits from noncompliance and reducing costs of enforcement for both states and regulated entities, such as litigation costs. Unlike criminal penalties, administrative penalties have less impact on the reputation of offenders. These penalties have been applied to environmental, health and safety, and financial services regulations in many countries, such as the US, Canada, Australia, and EU countries.[231] Macrory also observed that these penalties can be executed in the form of fixed monetary penalties[232] which do not allow regulators to determine the level of penalties. They can also be executed in the form of variable monetary penalties[233] which allow regulators to decide the level of penalties, whose maximum limits are considerably high. The severity of the variable monetary penalties is comparable to criminal monetary penalties.[234] Unlike criminal penalties, administrative monetary penalties can be imposed shortly after violations have been found, avoiding time-consuming

[227] The Merchant Shipping (Life-Saving Appliances and Arrangements) Regulations 2020 (SI 2020/501), Reg.20(2)
[228] Alan Brudner, 'Liability for Public Welfare Offences', in *Punish and Freedom: A Liberal Theory of Penal Justice* (Oxford University Press 2009), at p. 169-176
[229] Eithan Y. Kidron, 'Understanding Administrative Sanctioning as Corrective Justice' (2008) 51 University of Michigan Journal of Law Reform 313, at p. 349, 352-353
[230] Macrory (n 118), at p. 42, para.3.24
[231] Macrory (n 118), at p. 40-41, para.3.13-3.17
[232] Macrory (n 118), at p. 43-45, para.3.28-3.31
[233] Macrory (n 118), at p. 45, para.3.32
[234] Macrory (n 118), at p. 46, para.3.33-3.34

prosecution processes. These penalties are therefore appropriate for regulatory offences in the maritime shipping context, in which the due course of services is vitally important for international trade. By using administrative penalties, regulators can enforce regulatory offences appropriately and proportionately.

It is worthwhile noting that the deterrence effect of administrative sanctions, particularly monetary penalties, might depend heavily on the economic benefits of regulatory noncompliance.[235] Abbot suggested that there are several factors that could have a significant impact on the compliance performance of regulated industries should be taken into consideration when establishing administrative monetary penalties[236], namely (1) the possibility and costs of being detected, (2) the possibility and costs of enforcement actions, and (3) the possibility and costs of prosecution.[237] States should ensure that regulated industries will not gain more benefits from noncompliance than these possibilities and costs, which may be borne by the regulated entities. As such, the establishment of monetary penalties should also consider the monitoring system. In other words, states should design their monitoring systems and programmes to enhance the effectiveness of the monetary penalties. To mitigate the risk of disproportionate monetary penalties stemming from outdated legal frameworks, states may adopt one of two approaches: (1) eliminating regulatory caps on monetary penalties; or (2) implementing a broad spectrum of variable penalties, accompanied by formal guidelines that incorporate established penalty principles for their determination.

Again, the practice of the UK provides an example of these principles being applied in practice in the context of maritime regulation. The MSA 1995 and the MCA as the enforcement agency have also been suggested to adopt Macrory's suggestions, which have been integrated into the Regulatory Enforcement and Sanctions Act 2008 (RESA 2008), particularly the application of civil sanctions with provisions on British ships, registration, masters and seamen, safety, fishing vessels, enforcement officers

[235] Gary S. Becker, 'Crime and Punishment: An Economic Approach' (1968) 76 Journal of Political Economy 169, at p. 169-172

[236] Some countries, such as the US and the UK, refer to these penalties as civil penalties.

[237] Carolyn Abbot, 'A Theoretical Framework of Enforcement and Compliance', in *Enforcing Pollution Control Regulation: Strengthening Sanctions and Improving Deterrence* (Hart Publishing 2009), at p. 36-37

and powers, accident investigations and inquiries, legal proceedings, and supplemental[238].

In late 2021, the MCA therefore proposed to introduce the use of administrative monetary penalties as a deterrent mechanism applied to significant breaches under MSA 1995 in lieu of criminal prosecution, with the aim of reducing the use of criminal sanctions and the time and costs of prosecutions for the state and offenders.[239] The MCA found that monumental reliance on criminal sanctions has not yet effectively deterred future violations of regulatory standards.[240] Moreover, legal proceedings against offenders also take significant time and cost, allowing some businesses to continue operating the ships despite the risks to maritime safety.[241] The MCA also realised that the use of criminal sanctions with offences in MSA 1995 and SIs is disproportionate for enforcing minor offences and inappropriate for enforcing some serious offences, for which the prosecutions are generally time- and cost-consuming.[242] Furthermore, administrative penalties might be proportionate to minor offences that are subject to strong administrative measures, such as orders to stop ships from operating until deficiencies are corrected.[243] The administrative monetary penalties might also incentivise regulated industries to comply with persuasive measures such as warnings.[244]

Although the introduction of fixed and variable monetary penalties as a primary means of enforcement of some offences[245] expands the enforcement toolbox of MSA 1995, aligned with the suggestion of Macrory[246] and authorisation from RESA 2008[247], the discretion given to enforcement officers may result in the use of fines disproportionately or inappropriately. To reduce this risk, the MCA proposes to set

[238] Regulatory Enforcement and Sanctions Act 2008 (RESA 2008), Section 37(1)(b),(2), schedule 7
[239] MCA (n 195), at p.2-4, Annex A
[240] MCA (n 196), Annex A, p. 8
[241] MCA (n 196), Annex A, p. 7
[242] MCA (n 196), Annex A, p. 8
[243] MCA (n 196), Annex A, p. 7
[244] MCA (n 196), Annex A, p. 7
[245] MCA (n 196), Annex A, p. 11
[246] Macrory (n 118), at p. 42-45, para.3.23-3.32, 3.5
[247] RESA 2008 authorises the regulators under MSA 1995 to use fixed and variable monetary penalties with respect to offences with respect to violations of regulatory standards relating to maritime safety and pollution prevention and provisions on enforcement officers and powers and legal proceedings. See RESA 2008, Section 37, schedule 6.

the criteria for decision-making, by taking into consideration the Code for Crown Prosecutors, which provides proportionality tests for imposing criminal sanctions.[248] Moreover, the wide range of variable monetary penalties is proposed to allow the MCA to impose them proportionately.[249]

Macrory and Abbot also suggested states provide opportunities for offenders to appeal the administrative sanctions through specialised tribunals other than criminal courts, of which the members have legal and technical expertise in regulatory issues, and the appeal procedures are cost-saving and less time-consuming than criminal prosecution.[250] This strategy could avoid time- and cost-consuming proceedings in courts and reassure regulated industries that the tribunal would understand the issues.

Some offences, particularly noncompliance of operational standards relating to pollution prevention, which are difficult to detect through risk-based strategies and have high risks of serious harmful effects on the environment, should be subject to serious enforcement as a big stick, such as high monetary penalties following the risk-based surveys and inspections that can be used to detect violations of the standards of ships, their equipment, and appliances. For example, the UK applies deterrent and risk-based strategies to enforce operational standards such as the operational discharge of oil from ships[251] through unlimited monetary penalties, meaning that courts are allowed to impose fines as much as proportionate to the risks and seriousness of offences.

It is also worthwhile noting that, although the MSA 1995 presently uses criminal monetary penalties for serious offences, the unlimited fines are provided to allow courts to determine proportionate penalties based on relevant circumstances. With this approach, states do not need to regularly amend relevant enforcement provisions in primary acts. Moreover, the MSA 1995 and SIs also allow the courts, under the sentencing guidelines[252], to determine the sum for individual offences

[248] MCA (n 195), Annex A, p. 16
[249] The MCA proposed to limit all fines to £250 - £50,000. See MCA (n 196), Annex A, p. 16
[250] See Macrory (n 118), at p. 53, para.3.54-3.56; Abbot (n 237), at p. 217-218.
[251] Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 (SI 2018/68), Reg.38(1)(b), (3)
[252] Sentencing Act 2020, Section 59

relating to maritime safety and pollution prevention.[253] The opportunities for an offender to prove his due diligence to avoid the violation could assist a court in determining appropriate fines for the offence by taking into consideration the financial circumstances of the offender. The flexibilities, with the clear guidelines for decision-making including the consideration of the seriousness and the financial circumstances of the offender[254], given to the court might ensure that the fines would be proportionate and appropriate, considering the changes in inflation rates and the economic growth of the shipping industry.

For serious offences that can cause severe risks to maritime safety and pollution, criminal penalties, particularly imprisonment, might be applied either as a second-tier enforcement measure following violations of administrative measures that aim to prevent serious harmful effects on the environment from such actions immediately or as a primary sanction. Becker observed that incarceration can be used to deter serious offences when monetary penalties are unable to have a serious impact on offenders, particularly those with financial incapacity.[255] Hence, imprisonment should also be provided in the maritime shipping framework to allow regulators to impose on appropriate offenders proportionately. The identification of how to prove "due diligence" in the maritime shipping context could reassure the justification of the litigation outcome. For instance, the MSA 1995 permits imprisonment as a sanction, in addition to monetary penalties, for serious offences such as violations of prohibition notices[256] and prohibition regulations[257]. Notwithstanding, offenders are generally allowed to defend their due diligence practices against the offences, reflecting that the conviction of criminal penalties

[253] The criminal penalties for some offences might be applied in Scotland differently. Generally, the criminal fines applied to Scotland remain to be referred to the statutory maximum under section 122 of the Sentencing Act 2020, which has been repealed and replaced by section 85 of the Legal Aid, Sentencing and Punishment of Offenders Act 2012. See MSA 1995, Section 85(7), 128(3), (4), (5), (6); Legal Aid, Sentencing and Punishment of Offenders Act 2012, Section 85.

[254] The opportunities of offenders to prove due diligence and the factors for determining the fines of a court given in the Sentencing Acts 2020 are also guidelines in this context. It is worth noting that some offences limit the monetary penalties imposed on those convicted in Scotland or Northern Ireland to the statutory maximum provided by the Sentencing Act 2020. See, e.g., SI 2020/501 (n 227), Reg. 20(2)(a)(ii); Sentencing Act 2020, Section 122, 125-126.

[255] Gary S. Becker, 'Crime and Punishment: An Economic Approach' in Donald A. Wittman (ed), *Economic Analysis of the Law: Selected Readings* (John Wiley & Sons Incorporation 2002), at p. 263

[256] MSA 1995, section 266(2)(b)

[257] SI 2020/501 (n 227), Reg.20(2)(b)

against any person would be appropriately responded to by the act of the offender, in line with the principles suggested by Macrory[258]. Since criminal penalties could have a serious impact on offenders, it is crucial to impose them with care to ensure proper prosecution and punishment. For instance, the UK also takes precautions with the use of criminal penalties by establishing the RCIT. However, when designing enforcement tools, the limitations on the use of imprisonment, as outlined in Article 230 of UNCLOS, should also be carefully observed.

6.5 Conclusion

As required by the international legal framework, states have to establish national enforcement mechanisms with due diligence. To perform these duties, states should have an enforcement framework, as suggested by the III Code, by first establishing an enforcement policy framework to signal overall enforcement strategies and enforcement tools to regulators and regulated industries. This is not just another box for states to tick, but an opportunity for states to think about how to employ the enforcement resources that they have available in a strategic and effective manner. Indeed, the establishment of the enforcement policy should be developed by taking into consideration the enforcement performance resulting from regulatory reviews and enforcement evaluation.

Bearing in mind the principle of transparency, the development of an enforcement policy provides an opportunity to engage with stakeholders on these issues. This opportunity could enhance the propensity of stakeholders to comply with regulatory standards, as observed by both Chayes and Chayes[259] and Frank[260]. Moreover, states should also establish an information system to collect enforcement data from and facilitate for regulators to monitor regulatory compliance, determine appropriate enforcement tools by observing the principle of proportionality, and analyse enforcement performance. An example of an enforcement framework is illustrated in ***Figure 11*** below.

[258] Macrory (n 118), at p. 29-31, para.2.11
[259] Chayes and Chayes (n 31), at p. 3-5
[260] Thomas M. Franck, 'Legitimacy in the International System' (1988) 82 the American Journal of International Law 705, at p. 712-713, 751-752

This approach is particularly relevant for developing countries, which can be relieved from technical and resource constraints in control and monitoring by using risk-based strategies to identify and classify ships with high and low risks of regulatory noncompliance before determining how and when to apply appropriate enforcement means to deter violations. Such states can also delegate enforcement powers to ROs to perform surveys and inspections using risk-based strategies and cooperate with the ROs to develop survey and inspection programmes as appropriate while also oversighting the ROs to ensure that they perform surveys and certification in line with international standards and national legislation. The voluntary self-regulation such as ISO 14001 may be recognised as evidence of standardised operational management for classifying the risks of ships and the design inspection programme. States may also establish monitoring programmes as necessary to deal with any specific issues and ensure that high-risk ships are monitored comprehensively. It is also important to observe the principle of transparency and use information strategies in the monitoring system by publishing guidelines for ship survey and inspection and making public consultations for developing any special monitoring programme.

Bearing in mind that enforcement measures and penalties as required by many IMO treaties and suggested by the III Code have to be severe enough to discourage violations of international shipping standards[261], states should have a wide range of enforcement tools available in the enforcement toolbox. Informed by the results of control and monitoring activities, underpinned by risk-based strategies, states are equipped with an evidence-based foundation for assessing the severity of non-compliance. This, in turn, empowers them to select appropriate strategies for further action. In cases of non-serious violations, persuasive strategies may be employed. Conversely, for more egregious breaches, deterrence strategies might be implemented, involving legal proceedings and the imposition of appropriately severe enforcement measures or penalties to effectively prevent future violations.

[261] See the requirements of IMO treaties and suggestions of the III Code in Section 6.2.4 above.

Notwithstanding, the guidelines for determining and applying appropriate enforcement tools should also be made available to the public to ensure that regulators make decisions appropriately and proportionately.

To ensure that regulators apply enforcement tools proportionately and appropriately, Macrory's penalty principle should also be observed. The cooperative means can be applied to prevent regulatory noncompliance, particularly for non-serious offences, and might also strengthen the deterrence effect of persuasive enforcement by providing sanctions, either administrative or criminal, for a violation of primary enforcement. Among several types of sanctions, administrative penalties, particularly monetary penalties, are highly suggested for use as deterrence means for enforcement, in addition to the incapacitation of ships as the enforcement tool at the top of the enforcement pyramid. However, the opportunities to prove due diligence and appeal to a specialised tribunal should also be provided with guidelines for decision-making.

Deterrence enforcement, such as incapacitation of ships through suspension or withdrawal of certificates or criminal penalties, should be employed carefully by taking into consideration the seriousness of the offences, possibilities of risk-based detection, and circumstances of offenders. By setting up a specialised team to investigate and examine possible noncompliance with clear guidance, states could ensure that the sanctions will be imposed only when other enforcement tools are not effective. Although strict liability can save costs and time in prosecution, it might not be appropriate for regulatory noncompliance in the maritime shipping framework, which aims to prevent noncompliance. States should therefore provide opportunities to prove that offenders have taken all means or have any technical difficulties to prevent the violations.

All of these strategies can be executed effectively, provided that official personnel involved in the enforcement of states also have the capacity necessary for performing these tasks. As observed above, the challenges in enforcement are partly caused by the lack of technical capacity for enforcement, thus also highlighting the need for states to seek some sort of capacity-building. Thus, states, particularly developing countries, should also have capacity-building programmes through

regular training, establishing regional or bilateral technical cooperations, and seeking technical assistance from the IMO to ensure that their regulators have sufficient knowledge and awareness of the international theoretical concepts of the international maritime shipping framework and also have expertise for enforcement. For example, Thailand's Maritime Attache', who has been assigned to represent the state in the IMO forums, might also seek technical cooperation with other developed countries in assisting the state in capacity building.

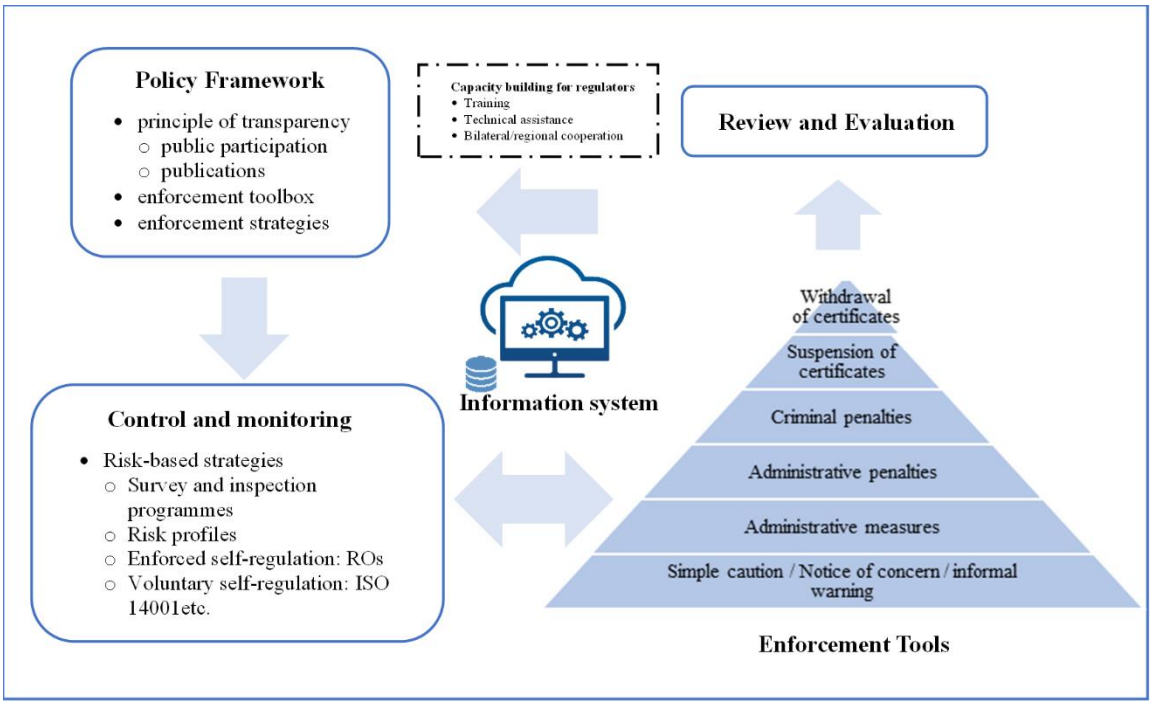

Figure 11 An example of enforcement framework

Chapter 7 Conclusion

This thesis has been concerned with the development and implementation of international shipping standards. The main international body in this context is the IMO, which has adopted multiple treaties dealing with maritime safety and the protection of the marine environment from the impacts of international shipping. The IMO also regularly updates these treaties to deal with advances in technological development in maritime shipping or new risks to maritime safety and the marine environment.

The concern of this thesis has been with the implementation of those international shipping standards by states. It is widely recognised that these standards will only achieve their objective if they are universally and uniformly implemented by states. This is acknowledged not only by the IMO itself but also by the rules of reference in UNCLOS. This observation reflects the need to strengthen international cooperation through the uniform implementation of the international legal framework for maritime shipping to ensure safety at sea and prevent pollution from ships.

The thesis has explored the challenges that states might face when implementing these standards into domestic law, in particular given the rapid changes that are seen in the standards through their continual development and amendment by the IMO through its tacit amendment procedures. It is worthwhile noting that challenges in implementation are often found in developed countries, but this thesis focuses mainly on those of developing countries to show the challenges for countries with less capacity in the implementation of highly technical standards. The focus on these states is particularly relevant given that the majority of the world's commercial shipping fleet flies the flag of a developing country. This thesis has explored opportunities and challenges for the drafting and implementation of international shipping standards, both at the international level and within the domestic legal framework. In the latter context, the thesis considered the consolidated audit reports produced by the IMO as part of the Member State Audit Scheme and empirical evidence from the literature. It also used the situation in Thailand as a case study of the challenges faced by a developing state in the transposition and enforcement of international shipping standards. The challenges of Thailand include

the transposition of international shipping standards into the national legal framework directly into the main provisions of the primary laws, the poor organisation of the legal framework's structure to facilitate the incorporation of international standards into the legal framework, the lack of coherence within the legal framework, the inappropriate legal basis and delegation of legislative power, the delay in the transposition of the technical standards, and the lack of technical capacity for the implementation. Moreover, Thailand has not availed itself of opportunities to object to or delay the entry into force of treaty amendments, as allowed, when the country is not fully prepared to implement such amendments. Many of the challenges faced by Thailand are typical of other developing countries and even some developed countries.

Based upon an identification of the key challenges faced by developing countries, the thesis then analysed different legal mechanisms and tools that can provide opportunities to both the IMO and states for strengthening developing countries' implementation of IMO standards. In particular, the thesis has sought to identify key steps that can be taken to assist states, especially developing states, to improve their implementation of international shipping standards with a view to ensuring universal and uniform application of this important area of international law. The goal of this thesis is to add to the academic literature on the implementation of international shipping standards by giving an overview of the whole process, from setting the standards to enforcing them. It will also use theoretical frameworks, mainly the managerial theory of treaty compliance, to show what factors affect states' compliance with their international obligations. By doing so, it identifies what can be done both at the international level to support states in the implementation of international standards as well as on the part of states themselves to make the international legal framework more effective at the domestic level. There was a thorough look at and analysis of international legal tools and mechanisms, mostly done and facilitated by the International Maritime Organization (IMO). These included strategies for setting standards and mechanisms for encouraging treaty compliance. The thesis suggested that the fact that individual reports are kept confidential could make states less likely to follow the treaty because the audit

scheme cannot reassure the universal implementation of the treaties or is even used to identify noncompliance. The thesis thus suggested that the IMO could strengthen the audit scheme by making it more transparent. By analysing individual audit results, comparing them with the overall performance of the treaties and other states, and publicising the individual performances, the revelation of individual performance could reassure the parties of the treaties of the universal implementation, hence encouraging them to improve their practices.

The thesis also suggested that the IMO should improve the ways it helps states build their capacities by developing a self-assessment form that allows states to figure out what they need in multiple dimensions based on the self-assessment and the audit result and establishing an institutional body with the authority to identify the needs of capacity-building and determine the arrangement of technical assistance to states. Moreover, the ITCP should be improved by integrating the capacity-building approaches of their partnerships into the technical cooperation policy to ensure that all states will be provided assistance under different partnership programmes, to strengthen their institutional capacity no less than the minimum requirements. It is true that the ITCP has recently paid attention to the long-term institutional capacity of developing countries, but this trend must be sustained. Additionally, suggestions and strategies for implementation, including sources of knowledge and best practices determined from the audit results, should also be provided to all states. The given examples of best practices mentioned above could assist states, especially developing countries, in developing their national legal framework.

In light of the challenges faced by states, particularly developing nations, in implementing international legal instruments, this thesis proposes law-making and enforcement strategies tailored to their national contexts. These strategies aim to significantly enhance flag state performance in upholding international standards to which they have consented. Key recommendations arising from this research include:

(1) States should maximise their opportunities to participate in the negotiation of international standards in order to ensure that their national interests are reflected

in the resulting agreements while ensuring that their delegation has a clear national interest identification before taking part in the negotiations;

(2) The national coordination between relevant agencies, local industries, and relevant stakeholders should also be established to ensure that they acknowledge and accept the forthcoming regulations;

(3) States should ensure that there exists an appropriate legal basis for incorporating international standards into the legal framework, which appropriately delegates legislative power to subordinate legislation to bypass the lengthy parliamentary law-making processes, albeit with safeguards for parliamentary scrutiny, and, in appropriate situations, an ambulatory reference approach may be applied to the transposition of technical standards, which do not require further executive action, thereby minimising the burden on countries;

(4) In addition to the law-making strategies, the thesis also suggested that states, especially developing countries, may consider temporarily objecting to or negotiating the delay of the entry into force of any amendment to a treaty when the states are not ready to implement the amendment;

(5) States should establish a wide range of enforcement tools in the national legal framework, but they must also be accompanied by a responsive regulatory strategy that allows an appropriate and proportionate response to particular violations of shipping standards; and

(6) States should ensure that their maritime policies and strategies, including enforcement policies and strategies and legal and interpretative instruments, are available to the public, particularly domestic shipping industries, both as a means of encouraging compliance but also demonstrating due diligence and ensuring accountability at the national and international levels.

It is recognised that legislative processes might vary between states, and thus the suggestions provided by this thesis might be applied differently in practice in a domestic context. Besides, the thesis also suggests states maximise the outcome by establishing national systems to reduce administrative burdens and alleviate resource constraints.

It is hoped that the results from the investigation of the international legal framework and the suggestions provided in this thesis can assist states in improving their practices toward the implementation of international shipping standards, provided that their capacity challenges have also been alleviated. The thesis argues that the challenges of states, especially developing countries, relating to law-making and enforcing national shipping standards can be solved through multiple legal tools and strategies in line with national policies. Nevertheless, it is undeniable that the successful implementation of international shipping standards and the effectiveness of the proposed law-making and enforcement strategies hinge upon the availability of well-trained legal drafters and regulators equipped with the necessary technical knowledge. This underscores the importance of capacity-building initiatives within individual states to bolster the capabilities of their legislators and regulators in achieving effective implementation. It follows that, alongside legal solutions, steps must be taken to address those capacity-related challenges. To this end, the thesis has also proposed developing the national capacity-building programme to strengthen states' capacities and ensure that they efficiently take up the technical assistance opportunities provided by the IMO.

Another limitation of this thesis is that the changes required in the national context with respect to maritime policy demand political will on the part of states themselves. The suggestion in the thesis for the IMO regarding the enhancement of the audit scheme through increased transparency may hold potential relevance.

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