
**MEDITERRANEAN ACTION PLAN (MAP)
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE
MEDITERRANEAN SEA (REMPEC)**

Seventh Meeting of the Mediterranean Network of Law
Enforcement Officials relating to MARPOL within the
framework of the Barcelona Convention (MENELAS)

REMPEC/WG.64/INF.4
02 October 2026
Original: English

Lija, Malta, 2-3 November 2026

Agenda Item 3: Study on possible criteria and possible minimum levels of fines for each offence provided for under the Annexes to MARPOL as set out in the consolidated draft Decision, as adjusted.

Draft Study on possible criteria and possible minimum levels of fines for each offence provided for under the Annexes to MARPOL, based on a comparative legal and operational analysis and taking into consideration the specificities of the Contracting Parties to the Barcelona Convention

For environmental and cost-saving reasons, this document will not be printed and is made available in electronic format only. Delegates are encouraged to consult the document in its electronic format and limit printing.

Note by the Secretariat

This document presents the draft Study on possible criteria and possible minimum levels of fines for each offence provided for under the Annexes to MARPOL, based on a comparative legal and operational analysis and taking into consideration the specificities of the Contracting Parties to the Barcelona Convention.

Background

1 The Secretariat, in consultation with the Working Group within MENELAS, prepared the draft Study on possible criteria and possible minimum levels of fines for each offence provided for under the Annexes to MARPOL, as set out in the consolidated draft Decision, as adjusted, based on a comparative legal and operational analysis and taking into consideration the specificities of the Contracting Parties to the Barcelona Convention, hereinafter referred to as “the draft Study”.

2 The draft Study is presented in the **Appendix** to the present document.

Action requested by the Meeting

3 **The Meeting is invited to take note** of the information provided in the present document

Appendix

Draft Study on possible criteria and possible minimum levels of fines for each offence provided for under the Annexes to MARPOL, based on a comparative legal and operational analysis and taking into consideration the specificities of the Contracting Parties to the Barcelona Convention

**MEDITERRANEAN ACTION PLAN (MAP)
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE
CENTRE FOR THE MEDITERRANEAN SEA (REMPEC)**

Draft Detailed Study on possible criteria and possible minimum levels of fines for each offense provided for under the Annexes to MARPOL, based on a comparative legal and operational analysis, taking into consideration the specificities of each Contracting Party to the Barcelona Convention

Prepared by Prof. Dr. Norman Martinez

This activity is financed by the Mediterranean Trust Fund (MTF) and is implemented by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), of the Mediterranean Action Plan (MAP) of the United Nations Environment Programme (UNEP) as well as the International Maritime Organization (IMO).

The views expressed in this document are those of the Consultant and are not attributed in any way to the United Nations (UN), UNEP/MAP, IMO or REMPEC.

The designations employed and the presentation of material in this document do not imply the expression of any opinion whatsoever on the part of the UN Secretariat, UNEP/MAP, IMO or REMPEC, concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

TABLE OF CONTENTS

TABLE OF ABBREVIATIONS

1. Background

2. Introduction

3. Methodology

- 3.1. Sources Used for the Analysis
- 3.2. Questionnaire Process and Response Rate
- 3.3. Whether Questionnaire Information Was Complemented by an Independent Legal Review
- 3.4. Treatment of Missing and Non-Comparable Data
- 3.5. Approach Used to Compare Fine Levels Across Currencies and Jurisdictions
- 3.6. Criteria Used to Assess Proportionality, Effectiveness, Dissuasiveness and Transferability
- 3.7. How the Recommendations Were Derived from the Evidence
- 3.8. Main Limitations of the draft Study

Draft Detailed Study of the Possible Criteria for Determining Fines and the Corresponding Minimum Levels of Fines

PART A - Inventory and Categorization of Relevant MARPOL Offences

- A.1. Categories of Discharge Violations
- A.2. The Degree of Culpability or Fault of the Responsible Person
- A.3. Criteria for Imposition of Fines
- A.4. Jurisdiction for Enforcement
- A.5. Proposed Applicability of Minimum Fines by Contracting Parties

PART B - Comparative Review of National Penalty Regimes

- B.1. Distinction Between Penalties Provided by Law and Penalties Effectively Imposed
- B.2. Identification of Fine Levels, Procedures and Ancillary Sanctions
- B.3. Assessment of Convergence/Divergence and Enforcement Gaps
- B.4. Alignment with Proportionality, Effectiveness, Dissuasiveness and the Polluter Pays Principle
- B.5. Overall Conclusion

PART C - Assessment of General and Specific Criteria for Determining Penalties

- C.1. Criterion-by-Criterion Analysis (Nine Sanctioning Criteria)
- C.2. Conclusions
- C.3. Comparative Matrix: Penalty Criteria Across Jurisdictions

PART D - Comparative Review of Other Regional Enforcement Frameworks

- D.1. Introduction and Scope
- D.2. The European Union: Directive 2005/35/EC as Amended
- D.3. Helsinki Commission (HELCOM)
- D.4. The Bonn Agreement
- D.5. OSPAR
- D.6. The North Sea Network (NSN)
- D.7. Comparative Assessment: Legal Robustness, Operational Feasibility and Transferability
- D.8. Elements Transferable to the Mediterranean Context
- D.9. Conclusion

PART E - Options for Minimum Criteria and Minimum Levels of Fines

- E.1. Proposed Applicability of Minimum Fines for Contracting Parties
- E.2. Criteria for the Adoption of Minimum Fines
- E.3. Conclusions and Recommendations

TABLE OF ABBREVIATIONS

Abbreviation	Definition
CP / CPs	Contracting Party / Contracting Parties to the Barcelona Convention
CRB	Cargo Record Book
EC	European Community
ECA / ECAs	Emission Control Area(s)
EEZ	Exclusive Economic Zone
EMSA	European Maritime Safety Agency
EU	European Union
GT	Gross Tonnage
HELCOM	Helsinki Commission (Baltic Marine Environment Protection Commission)
IMO	International Maritime Organization
MARPOL	International Convention for the Prevention of Pollution from Ships
MENELAS	Mediterranean Network of Law Enforcement Officials relating to MARPOL, within the framework of the Barcelona Convention
MEPC	Marine Environment Protection Committee (IMO)
MOU	Memorandum of Understanding
MPA / MPAs	Marine Protected Area(s)
NLS	Noxious Liquid Substances
NO_x / NOX	Nitrogen Oxides
NSN	North Sea Network of Investigators and Prosecutors
ODS	Ozone-Depleting Substances
ORB	Oil Record Book
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic (Oslo-Paris Convention)
PM	Particulate Matter
POLREP	Pollution Report
PPP	Polluter Pays Principle
PSSA / PSSAs	Particularly Sensitive Sea Area(s)
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
SDR / SDRs	Special Drawing Rights
SO_x / SOX	Sulphur Oxides
ToR	Terms of Reference
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme

1 BACKGROUND

- 1.1 Through the adoption of the Mediterranean Strategy for the Prevention of, Preparedness, and Response to Marine Pollution from Ships (2022–2031),¹ hereafter the “Mediterranean Strategy”, COP 22² agreed on the need to strengthen prevention, preparedness, response to operational, illegal and accidental pollution from ships and invited relevant organisations to cooperate and coordinate their actions for assistance to facilitate the ratification, effective implementation and strict enforcement of relevant legally binding instruments. The Mediterranean Strategy and its Action Plan explicitly recognise enforcement as an essential component of effective implementation and compliance with MARPOL obligations in the Mediterranean region.
- 1.2 Through [Decision IG.27/11](#), COP24³ reiterated the importance of effective enforcement for the implementation of the Barcelona Convention and relevant international instruments. To this end, COP24:
- adopted the revised Terms of Reference of the *Mediterranean Network of Law Enforcement Officials relating to the International Convention for the Prevention of Pollution from Ships (MARPOL) within the framework of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (the “Barcelona Convention”)* (MENELAS),
 - recognized the Network as a key regional mechanism to strengthen cooperation on enforcement and prosecution of MARPOL violations, and
 - mandated REMPEC, as the Secretariat of MENELAS, to facilitate their implementation.
- 1.3 The Mediterranean Network of Law Enforcement Officials relating to MARPOL (MENELAS) is a network of representatives of all Contracting Parties (CPs) to the Barcelona Convention set in 2013,⁴ whose overall objective is to facilitate cooperation between its members in order to improve the enforcement of the international regulations regarding discharges at sea from ships as laid down in the MARPOL Convention.
- 1.4 The Third Meeting of MENELAS (Malta, 15-16 October 2019) agreed, in principle, on the need to harmonize pecuniary sanctions for illicit discharges in the Mediterranean and instructed the Working Group within MENELAS to:
- review existing applicable sanctions at national level with regard to illicit ship pollution discharges, and

¹ [Decision IG.25/16](#).

² Twenty-second Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols (Antalya (Turkey), 7-10 December 2021).

³ Twenty-fourth Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols (Cairo, Egypt, 2–5 December 2025).

⁴ MENELAS was set up in 2013 through [Decision IG.21/9](#) adopted by the Eighteenth Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols (COP18 - Istanbul, Turkey, 3-6 December 2013).

- prepare a draft Decision to apply criteria for a common minimum level of fines for each offence provided for under the Annexes to MARPOL, hereafter referred to as the “the draft Decision”.
- 1.5 For this purpose, by recognising that the harmonization exercise could benefit from learning by comparison with other regional experiences, MENELAS requested REMPEC to liaise with HELCOM on its [Recommendation 19/14](#) on a harmonized system of fines in case a ship violates anti-pollution regulations, to understand how such a framework had been developed and implemented in practice.
- 1.6 By the Fourth Meeting of MENELAS (Online, 21-22 April 2021), the draft Decision to apply criteria for a common minimum level of fines was included as a dedicated agenda item and the key elements to be included in the draft Decision were agreed upon.
- 1.7 The Fifth Meeting of MENELAS (Malta, 22-23 February 2023), agreed to carry out further targeted technical and legal work, regarding:
- the collection and analysis of national data on sanctions for illicit ship pollution discharges; and
 - the review and consolidation of the existing draft Decision.
- 1.8 The Sixth Meeting of MENELAS (Malta, 4–5 December 2024) examined the consolidated version of the draft Decision⁵ and highlighted significant divergences in national enforcement approaches and sanctioning regimes in the CPs, potentially undermining consistency, deterrence and legal certainty at regional level, and concluded that further work was required prior to its submission to the CPs to the Barcelona Convention.⁶ In particular, the Meeting:
- recognized the need to carry out a detailed Study on possible criteria and possible minimum levels of fines for each offense provided for, under the Annexes to MARPOL, as set out in the consolidated draft Decision;
 - highlighted the need for the development of associated draft guidelines in order to ensure uniform and effective implementation of the consolidated draft Decision in the Mediterranean region.
- 1.9 These conclusions were endorsed by the 16th Meeting of the Focal Points of REMPEC (Malta, 13-15 May 2025), which confirmed the need to carry out such a Study and to develop practical Guidelines, taking into account national specificities and information from CPs, including methodologies for estimating quantities of waste discharged from polluting ships.⁷

⁵ [REMPEC/WG.59/2 - Report of the Working Group within MENELAS.](#)

⁶ [REMPEC/WG.59/10 - Report of the 6th MENELAS Meeting.](#)

⁷ [REMPEC/WG.61/12 - Report of the 16th Focal Point Meeting.](#)

2 INTRODUCTION

2.1 This *draft detailed Study on possible criteria and possible minimum levels of fines for each offense provided for under the Annexes to MARPOL*, hereafter referred to as “the draft Study”, is based on a comparative legal and operational analysis, taking into consideration the specificities of each Contracting Party (CP) to the Barcelona Convention.

2.2. This draft Study examines the possible criteria for determining fines and the corresponding minimum levels of fines applicable to each offence provided for under the relevant legislation under the Annexes to MARPOL, as set out in the *consolidated draft Decision, as adjusted, taking into consideration the specificities of each Contracting Parties to the Barcelona Convention*, as follows:

.1

- a) Inventory and categorization of relevant MARPOL offences: the draft Study will provide a structured inventory for each offense provided for under the Annexes to MARPOL, as set out in the consolidated draft Decision, by identifying and categorizing:
 - type of illegal discharge (operational, accidental, intentional)
 - nature of pollutant (oil, noxious liquid substances, sewage, garbage, air emissions)
 - regulatory provision breached (i.e. MARPOL regulations)
 - context of the offences (e.g. high seas, territorial waters, port state control inspection, emission control area)
- b) Structured comparative analysis of the existing penalty frameworks of the Contracting Parties (CPs) relating to MARPOL offences. The analysis distinguishes between:
 - penalties provided by law (administrative and criminal);
 - penalties effectively imposed in practice during the period 2020–2025, where data are available.

.2 Identifies:

- the minimum, average and maximum levels of fines;
- the respective use of administrative and criminal procedures;
- ancillary sanctions, including detention, confiscation, environmental compensation and suspension of activities.

.3 Assesses:

- the degree of convergence and divergence among national penalty systems;
- enforcement gaps and practical constraints affecting the application of penalties;
- the deterrent effect and overall effectiveness of existing penalty regimes across the Mediterranean region, including whether the penalties applied are effective, proportionate and dissuasive. The assessment establishes whether:
 - low penalties undermine the credibility of enforcement;
 - divergent enforcement approaches among CPs create enforcement asymmetries, thereby weakening deterrence and encouraging polluters to exploit jurisdictional differences.

- .4 Examines the extent to which national penalty systems are aligned with the principles of:
- proportionality;
 - effectiveness;
 - dissuasiveness; and
 - the polluter pays principle.
- .5 Assesses general and specific criteria for determining penalties by analysing the criteria applied by the CPs when determining sanctions, including, but not limited to:
- quantity or estimated quantity of pollutants discharged
 - type and harmfulness of the substance/pollutant
 - sensitivity of the affected area (Special Areas under MARPOL, ECAs, MPAs etc.)
 - ship characteristics (type, gross tonnage, operational profile)
 - degree of culpability or fault of the responsible subject (intent, negligence, recklessness)
 - recurrence of offence
 - damage caused by an illegal discharge to the environment or human health
 - level of cooperation with Authorities or obstruction attitudes during inspection/investigation
 - economic benefit generated or expected to be generated from the violation
- .6 The draft Study provides a comparative review of relevant practices developed under other regional frameworks addressing ship-source pollution enforcement and penalties, such as those established under the European Union (notably Ship Source Pollution Directive), HELCOM, Bonn Agreement, OSPAR/NSN, with a view to identifying elements that are legally robust, operationally feasible and potentially transferable to the Mediterranean context.
- .7 The draft Study concludes with options for minimum criteria and minimum levels of fines: based on the above analysis, the consultant shall develop legally sound and operationally feasible recommendations that could enhance consistency and legal certainty at regional level, strengthening deterrence, while respecting national sovereignty and the autonomy of penalty systems. The options will cover:
- common minimum criteria for deterring penalties
 - possible minimum levels of fines per category of offence

3. METHODOLOGY

This section sets out the structural basis of the draft Study, including the sources relied upon, the process by which national information was gathered and its response rate, whether questionnaire responses were complemented by an independent review of national legislation. Furthermore, this section also addresses how missing and non-comparable data were treated, the approach taken to comparing fine levels denominated in different currencies and legal systems. Additionally, the criteria used to assess proportionality, effectiveness, dissuasiveness and transferability discussed. In the light of the recommendations provided for in Part E, this section informs the CPs of how the recommendations were derived from the evidence gathered

in Parts A to D of this draft Study. The last part delves into the main limitations that should be borne in mind when using the draft Study.

Sources used for the Analysis

3.1. The draft Study draws on the following categories of sources:

- National self-reporting. These are the responses submitted by CPs to the questionnaire circulated within the MENELAS network, namely, Questionnaire for Contracting Parties to the Barcelona Convention. This covers national legislation implementing the provisions of MARPOL and its Annexes and providing for penalties in case of violations of its provisions, especially illegal discharge of pollutants, type, level and imposing authority of sanctions and, where available, penalties actually applied over the reference period 2020-2025, formal mechanism for monitoring compliance with the provisions of the national legal framework implementing the provisions of MARPOL and its Annexes, harmonisation mechanisms, mechanisms in place for harmonising the penalties with those of other CPs and Criteria considered when determining penalties for illegal discharges from ships, which asked CPs directly which factors they weigh when fixing a penalty. Parts A, B, C and E of the draft Study are built on this source.
- The consolidated draft Decision on minimum criteria, as adjusted, and the MARPOL Convention and its Annexes I to VI, including the Special Area, ECA and PSSA provisions, which supply the offence classification used throughout the draft Study.
- Applicable international law, in particular UNCLOS, including Article 230 on the permissible penalties for foreign-flag pollution offences.
- Publicly available legal and institutional instruments of the four external frameworks reviewed in Part D - the European Union's Ship-Source Pollution Directive regime (Directive 2005/35/EC as amended, Directive (EU) 2024/3101, and the related Commission evaluation and European Parliament briefing material), HELCOM (the 1992 Helsinki Convention and Recommendations 19/14 and 19/16), the Bonn Agreement (the Counter Pollution Manual and the North Sea Manual on Maritime Oil Pollution Offences) and OSPAR/the North Sea Network of Investigators and Prosecutors (the 1992 OSPAR Convention and NSN's Terms of Reference).

Unless indicated otherwise, the description of each CP's national penalty framework in Parts A, B, C and E reflect that CP's own characterization of its legislation in its questionnaire responses, rather than a review of the underlying statutory text conducted independently by the consultant.

3.2. Questionnaire process and response rate

The questionnaire was circulated on 14 April 2026 to all Contracting Parties to the Barcelona Convention through the MENELAS designated representatives and REMPEC Prevention Focal Points. Contracting Parties were invited to submit their responses by 7 May 2026. Responses received after this deadline have been equally taken into consideration and fully reflected in the analysis undertaken under this draft Study. In total, responses were received from eight CPs.

Not every CP answered every question. In particular, the Criteria Questionnaire response for one CP states that “there is not any provisions for criteria to be considered”, and several other CPs answered in narrative rather than itemized form. Responses to the Penalties Questionnaire were similarly uneven in completeness. Some CPs provided case-level or year-by-year enforcement data for 2020-2025, while for the remaining CPs the draft Study records only the penalties provided for in law, because no data on penalties actually imposed was submitted. A CP’s silence on a given point is treated strictly as “no information provided” and it is not treated as evidence that the corresponding criterion or sanction is absent from that CP’s legislation.

For the purposes of Parts B and C, every reference to “All CPs” refers to the eight CPs from whom questionnaire responses were received.

3.3. Whether Questionnaire information was complemented by an independent legal review

The extent of independent verification differs between the CP-level analysis and the comparative review of external frameworks.

Parts A, B, C and E (the assessment of the eight CPs) rely on the questionnaire responses as submitted. Since the questionnaire was to be completed by the MENELAS Designated Representatives (DRs), in consultation with their REMPEC Prevention Focal Points, REMPEC Governmental Focal Points, and other relevant national authorities and stakeholders, as appropriate, the analysis is based primarily on the information and responses provided by the respective CPs. As not all relevant legislation, implementing regulations, and supporting legal materials were available in English, no independent translation or comprehensive verification of the underlying national legislation, official gazettes or implementing regulations against the questionnaire responses was undertaken.

Furthermore, due to the limited timeframe, it was not feasible to conduct an independent legal review or cross-check of all applicable domestic legal instruments across the eight CPs. Accordingly, the findings and analysis should be interpreted in light of these limitations which are subject to confirmation by the respective national authorities. Where a questionnaire response is silent, vague, or uses discretionary language, the draft Study reflects that vagueness rather than supplementing it from external national sources.

Part D (the comparative review of the EU, HELCOM, the Bonn Agreement and OSPAR/NSN) are based on independent review of publicly available primary legal instruments (the relevant Directives, the Helsinki and OSPAR Conventions, HELCOM Recommendations, the North Sea Manual on Maritime Oil Pollution Offences and NSN’s Terms of Reference) and secondary sources, which are instruments independently published.

This difference is intentional and reflects the draft Study's design, not an omission. However, it means that the findings on the eight CPs' own frameworks are supported by different evidence than the findings on the four reference frameworks. These findings should therefore be interpreted accordingly, as explained in the main limitations of the draft Study below.

3.4. Treatment of Missing and Non-Comparable Data

Given the self-reporting nature of the underlying data, the draft Study applies the following principles consistently across CPs.

- Silence is recorded as silence. Where a CP did not address a particular criterion, or reporting field, the draft Study records this as “no information provided” (or, in the Part C, as absent) rather than inferring a substantive position either way.
- Discretionary language is recorded as discretionary, not explicit. Where a response uses qualifying wording such as “may take into account” or “is left to the discretion of”, the corresponding criterion is categorized as implicit/discretionary rather than explicit, even where the factor is named in the statute, so as to preserve the distinction between a mandatory factor and a permitted consideration.
- Aggregated and individual-level figures are kept apart. Some CPs reported annual totals, that is, the number of penalty decisions and the aggregate value of fines imposed each year, while others reported individual case fines. The draft Study treats annual totals as indicators of enforcement volume and activity and treats individual case or statutory range figures as the basis for the minimum/average/maximum fine-level comparison. The two are not merged into a single figure.
- Questions that receive no response are not regarded as a negative finding. For instance, CP’s response indicates that it had not processed any sanctioning cases under Annex II or Annex IV during 2020-2025. This is recorded as an absence of enforcement data for that question section rather than as evidence of full compliance or of an absent penalty regime.

3.5. Approach Used to Compare Fine Levels Across Currencies and Jurisdictions

CPs reported fine levels in a mixture of units in Special Drawing Rights (SDR), Euro, and other local currencies. The draft Study presents fine levels as reported by each CP, in the unit of account that CP itself used, rather than recalculating a uniform SDR-equivalent figure for every reported amount.

This choice was made for three reasons. Firstly, exchange rates fluctuate and the date to which a retrospective conversion should be pegged is not always ascertainable from the questionnaire responses. Secondly, some CPs reported ranges that already mix statutory ceilings with case-level figures, which a currency conversion alone would not reconcile, and thirdly, converting selectively would risk implying a precision in cross-country comparison that would not be accurate.

Consequently, comparative statements in Parts B and C for example, that reported oil-discharge fines range from around 1,281-2,135 SDR at the lower end to 313,333 SDR, up to €601,000, or up to 100,000,000 in local currency of a CP at the upper end, are presented side by side to illustrate the order of magnitude of divergence between CPs and is not a single uniform scale. Standardizing all fines in SDR going forward is provided to CPs as a recommendation in Part E precisely because the draft Study’s own comparative exercise demonstrates how much the lack of a common unit of account currently limits direct comparability.

3.6. Criteria Used to Assess Proportionality, Effectiveness, Dissuasiveness and Transferability

The assessment of national penalty systems in Part B against the principles of proportionality, effectiveness, dissuasiveness and the polluter pays principle follows the standards articulated in EU environmental law, in particular [DIRECTIVE \(EU\) 2024/1203](#) on the protection of the

environment through criminal law, under which sanctions for environmental infringements should be effective, proportionate and dissuasive. The draft Study applies these as four following qualitative tests:

- Proportionality: whether penalties are graduated to the seriousness of the pollution event, vessel size, recurrence and pollutant type, as opposed to flat, undifferentiated fines applied irrespective of scale or consequence.
- Effectiveness: whether the available sanctions, that is, financial penalties combined with operational tools such as vessel detention, certificate suspension, prohibition from sailing and refusal of port clearance can realistically secure compliance, including where implementing regulations or detection capability are still being developed.
- Dissuasiveness: whether the severity of the combined financial, criminal and operational consequences is sufficient to discourage future violations, as distinct from being absorbed as a routine cost of operation.
- Polluter Pays Principle: whether the offender is required to bear the costs of environmental remediation and restoration in addition to, and separately from, any punitive fine.

Each CP's regime was rated qualitatively against these four tests to ascertain whether they show strong, partial or weak alignment based on the combination of sanction types, secondary measures and enforcement practice disclosed in its questionnaire responses.

Transferability, applied in Part D to the EU, HELCOM, the Bonn Agreement and OSPAR/NSN, was assessed against three further dimensions: legal robustness, i.e., whether the element carries binding or judicially enforceable force; operational feasibility, i.e. whether adopting the element would require new institutional machinery, for example, a common court, direct effect, criminal law competence, that the Barcelona Convention system does not currently have; and transferability proper, i.e., whether a documented institutional bridge to the Mediterranean already exists, such as MENELAS's participation in NSN's annual meetings, and whether the element is compatible with binding external constraints, in particular UNCLOS Article 230.

3.7. How the Recommendations were derived from the evidence

The options and recommendations in Part E were not developed independently of Parts A to D. They follow a defined systematic sequence, namely:

- Each CP's stated practice was first coded against nine sanctioning criteria, using the explicit/discretionary/absent classification set out in Part C, to establish, criterion by criterion, which factors are already applied by a majority of CPs (areas of convergence) and which are applied by few or none (structural gaps).
- Each identified gap was then cross-checked against the four external frameworks reviewed in Part D, to establish whether a legally robust and operationally feasible model already exists elsewhere that could address it, for example, HELCOM Recommendation 19/14's SDR-denominated minimum-fine schedule as a precedent for currency standardisation, or the EU's "effective, proportionate and dissuasive" statutory floor as a precedent for a qualitative minimum standard.
- A recommendation was included in Part E only where it could be anchored either in a practice already used by at least one CP in the region, for example

one CP's gross-tonnage-indexed formula, another's mandatory doubling of penalties on recidivism, or ones named economic-benefit criterion or in a documented external precedent discussed in Part D. The method is that recommendations build outward from tested practice rather than proposing untested concepts, on the view that proposals with an existing regional or comparative precedent are more likely to be legally sound and operationally feasible for CPs to adopt.

Where a gap was identified but no existing CP practice or external precedent offered a clear model, Part E frames the corresponding recommendation as a standardized methodology to be developed, rather than as a codification of existing practice.

3.8. Main Limitations of the draft Study

The following limitations should be taken into account when using the draft Study's findings and recommendations.

- Self-reporting CP data: The description of each CP's national penalty framework in Parts A, B, C and E rests on that CP's own questionnaire response and as explained above, has not been independently verified against primary legislative texts or official gazettes. Part D, addressing external frameworks, is based on independently reviewed public legal instruments and is not subject to this limitation in the same way.
- Uneven response: Responses range from detailed, itemised lists to brief narrative statements or a simple "no". This unevenness may understate, rather than accurately reflect the true content of a CP's legal framework, particularly where a CP simply did not itemise criteria that its legislation in fact contains.
- Limited evidence regarding enforcement in practice. Only two CPs supplied substantive data on penalties actually imposed during 2020–2025. For the remaining CPs, the draft Study's findings describe the penalties provided for in law rather than demonstrated enforcement outcomes; conclusions on effectiveness and dissuasiveness in practice are correspondingly more provisional for those CPs.
- Currency and comparability constraints. As explained under "Approach Used to Compare Fine Levels Across Currencies and Jurisdictions" above, fine levels are reported in different currencies and on different bases (individual case fines versus annual aggregates); cross-CP comparisons of fine ranges are illustrative of relative divergence rather than a statistically normalised comparison.
- Scope of the comparative review. Part D examines four external frameworks (the EU, HELCOM, the Bonn Agreement and OSPAR/NSN).
- Nature of the recommendations. The options set out in Part E are policy recommendations for CPs' consideration. They do not constitute legal advice, are not binding, and expressly preserve CPs' sovereign discretion over the design of their national penalty systems.

Draft Detailed Study of the Possible Criteria for Determining Fines and the Corresponding Minimum Levels of Fines Applicable to Each Offence Provided for Under the Relevant Legislation Under the Annexes to MARPOL

PART A Inventory and Categorization of Relevant MARPOL Offences

The primary objective of the MARPOL Convention is the protection and preservation of the marine environment as construed in the light of international law. The Convention includes regulations aimed at preventing and minimizing pollution from ships - both accidental pollution and routine pollution. Through six technical Annexes, the Convention establishes minimum standards applicable to ships regulated by the Convention and enforceable by MARPOL States Parties. It is for this reason that States Parties are obligated to promulgate national legislation for the implementation and enforcement of the provisions of the Convention. The laid down laws promulgate minimum standard prescribed by the flag State for their merchant vessels as well as coastal and port States in respect of foreign ships when in their waters. Such minimum standards have become binding on third States through the working of customary international law.⁸

MARPOL has defined **harmful substances** in the Convention to mean any substance which, if introduced into the sea, is liable to

- a. create hazards to human health, to harm living resources and marine life,
- b. to damage amenities
- c. to interfere with other legitimate uses of the sea.⁹

MARPOL also provides for a double system of national prohibitions and sanctions by requiring States to prohibit violations of its pollution prevention standards under their domestic laws and to provide appropriate sanctions for such violations. This system applies both to the flag State, which has primary responsibility for enforcing MARPOL requirements on ships flying its flag, and to the port or coastal State, which may investigate and take enforcement action in accordance with the Convention. As a result, compliance is reinforced through overlapping national enforcement mechanisms, ensuring that MARPOL offences are subject to sanctions regardless of where they occur.¹⁰ This dual thronged approach to the prevention of marine pollution has also required a wider web for effectiveness by infusing a jurisdictional legislative responsibility wherein parties must work together to achieve a common goal. By so doing, MARPOL creates minimum standards which must be recognized by States Parties for prevention of marine pollution and enforcement of sanctions against perpetrators of offences.

⁸ Malgosia Fitzmaurice, *The International Convention for the Prevention of Pollution from Ships (MARPOL)* (The IMLI Manual on International Maritime Law Volume III, OXFORD PRESS, 2016) 39.

⁹ Article 2-2 of MARPOL.

¹⁰ Article 4 and 6 of MARPOL. MARPOL does not itself prescribe specific fines or classify offences. Rather, it requires Parties to prohibit violations of the Convention and to establish sanctions under national law. The violations addressed by MARPOL primarily concern unlawful discharges of pollutants into the marine environment regulated under Annexes I to VI. Each of these Annexes sets out pollution prevention requirements for different categories of pollutants.

The term "offence" is generally used in national legislation, where a State has provided for effective implementation of MARPOL requirements in its domestic laws. A violation of MARPOL therefore becomes a criminal or administrative offence under national law, depending on the country's legal framework.

In order to determine the fines and/or other consequences for committing the same, national legislation implementing MARPOL Annexes generally categorizes fines based on the type of offence and circumstances under which they are committed. By implication, the type of offence is usually connected to illegal discharges in the sea as are contained in annexes I to VI of MARPOL as follows:

A.1. CATEGORIES OF DISCHARGE VIOLATIONS

1. Discharge of oil into the sea (Annex I)
2. Discharge of residues of noxious liquid substances carried in bulk (Annex II)
3. Discharge of harmful substances carried in packages (Annex III)
4. Discharge of sewage (Annex IV)
5. Illegal discharge of garbage (Annex V)
6. Air pollution by vessels (Annex VI): Illegal emission of ozone-depleting substances (ODS), nitrogen oxides (NO_x), sulphur oxides (SO_x) and particulate matter (PM), and volatile organic compounds (VOC).

Although illegal discharges are the most common MARPOL violations, the Convention regulates a much broader range of conduct. Violations may arise from non-compliance with operational, equipment, certification, record-keeping and reporting requirements, even where no pollution has actually occurred.

Therefore, violations under MARPOL can be grouped into four broad categories:

1. Discharge violations: unlawful releases of pollutants;
2. Documentation and certification violations: missing, expired or falsified certificates and records;
3. Equipment and operational violations: failure to install, maintain or properly use required pollution prevention systems; and
4. Monitoring, reporting and enforcement-related violations: failure to report, cooperate with inspections, or comply with procedural obligations.

For the purposes of this draft Study, this broader categorisation is preferable because many national laws impose sanctions not only for illegal discharges but also for documentary fraud, equipment tampering, certification failures and other forms of non-compliance that undermine the effectiveness of the MARPOL regime, as is evident from the questionnaire responses received from the CPs.

The list above reflects the broad Annex-level groupings under which MARPOL offences are commonly discussed. The consolidated draft Decision that this draft Study is intended to support and inform, however, defines minimum fines by reference to a more granular set of specific offences, each carrying its own fine-setting criteria under Part III of the draft Decision's Annex. Table 1 below sets out this offence-by-offence inventory, cross-referencing each offence to its MARPOL Annex and Regulation(s), its nature (a substantive discharge offence, a documentary/record-keeping offence, or an operational/equipment offence), and the specific fine-setting criteria and minimum fine established in the draft Decision.

Table 1: Offence-by-Offence Inventory (MARPOL Annexes I–VI, cross-referenced to the Draft Decision)

#	Offence	Annex	Regulation(s)	Nature of Offence	Where the Offence May Occur	Criteria for Minimum Fine (Draft Decision, Annex, Part III)	Minimum Fine
1	Illegal discharge of oil	I	15, 34	Discharge	All sea areas — high seas, areas under national jurisdiction, and MARPOL Special Areas (Reg. 34 imposes far stricter discharge criteria within Special Areas than Reg. 15 outside them)	Quantity of illegally discharged oil; environmental damage caused by the discharge	[XX] units of account
2	No Oil Record Book kept on board	I	17(4)–(6); 36(5)–(7)	Documentary (continuing offence)	The record books are subject to inspection when the ships visit ports of Contracting States, irrespective of the flag the ship is flying	Period of time during which no Oil Record Book was kept (fine based on duration); quantity of sludge not accounted for, based on consumption calculations	[XX] units of account
3	Oil Record Book kept, but entries missing, wrong, or lacking signature	I	17(4)–(6); 36(5)–(7)	Documentary (continuing offence)	The record books are subject to inspection when the ships visit ports of Contracting States, irrespective of the flag the ship is flying	Quantity of sludge for which entries are missing or wrong (fine increases per tonne); duration during which entries were missing or wrong	[XX] units of account
4	Illegal discharge of noxious liquid substances (NLS)	II	13	Discharge	All sea areas — high seas and areas under national jurisdiction; MARPOL Special Area status applies only to the Antarctic area, where discharge of Category X, Y and Z residues is prohibited outright	Quantity of substance discharged (fine increases per tonne); category of substance (X, Y or Z); environmental damage caused by the discharge	[XX] units of account
5	No Cargo Record Book kept on board	II	15	Documentary (continuing offence)	The record books are subject to inspection when the ships visit ports of Contracting States, irrespective of the flag the ship is flying	Period of time during which no Cargo Record Book was kept; quantity of cargo not accounted for, based on consumption calculations	[XX] units of account
6	Cargo Record Book kept, but entries missing, wrong, or lacking signature	II	15	Documentary (continuing offence)	The record books are subject to inspection when the ships visit ports of Contracting States, irrespective of the flag the ship is flying	Duration during which entries were missing or wrong; quantity and category of substance (X, Y or Z) for which entries are missing or wrong	[XX] units of account

7	Illegal jettisoning of harmful substances carried in packaged form	III	8	Discharge	All sea areas — high seas and areas under national jurisdiction; Annex III designates no Special Area, so the jettisoning prohibition applies uniformly regardless of location	Quantity of harmful substances contained in packages; lack of proper stowage, packaging or labelling of packages containing harmful substances	[XX] units of account
8	Illegal discharge of sewage	IV	11	Discharge	Mainly areas under national jurisdiction — Reg. 11's discharge thresholds (>3 nm treated, >12 nm untreated) are measured from the nearest land; the Baltic Sea Special Area prohibits untreated discharge entirely	Quantity of sewage discharged; duration of illegal discharge; distance from nearest land; whether discharge was instantaneous or at a moderate rate; speed of the ship; visibility of effluents/solids or discolouration of surrounding water; lack of an approved sewage treatment plant	[XX] units of account
9	Illegal discharge of garbage	V	3, 6	Discharge	All sea areas — high seas, areas under national jurisdiction, and MARPOL Special Areas, where most garbage categories are prohibited outright rather than merely distance-restricted	Quantity of substance discharged (fine increases per tonne); type of substance (plastics, wood, food wastes, etc.); distance from nearest land; lack of treatment through a comminuter or grinder; feasibility of visiting a near port reception facility without significant route deviation; degree of harmful nature of the discharge (e.g. cleaning agents containing carcinogenic components; vulnerability of habitat and protected species to lost fishing gear); lack of a garbage management plan	[XX] units of account
10	No Garbage Record Book kept on board	V	10(3)	Documentary (continuing offence)	The record books are subject to inspection when the ships visit ports of Contracting States, irrespective of the flag the ship is flying	Period of time during which no Garbage Record Book was kept; quantity and type of garbage not accounted for, based on consumption calculations	[XX] units of account
11	Garbage Record Book kept, but entries missing, wrong, or lacking signature	V	10(3)	Documentary (continuing offence)	The record books are subject to inspection when the ships visit ports of Contracting States, irrespective of the flag the ship is flying	Quantity and type of garbage for which entries are missing or wrong (fine increases per tonne); duration during which entries were missing or wrong	[XX] units of account
12	Illegal emission of ozone-depleting substances (ODS), nitrogen oxides (NOX), sulphur oxides (SOX) and particulate matter, and volatile organic compounds (VOC)	VI	12, 13, 14, 15	Operational / emission	All sea areas, but with materially stricter SOx/PM and NOx limits inside Emission Control Areas (ECAs); ODS restrictions are global and location-neutral	Duration of emission; type of emitted substances	[XX] units of account

13	Illegal incineration of ship-generated wastes on board a ship	VI	16	Operational	Reg. 16 prohibits incineration within port, harbour or estuary waters (areas under national jurisdiction); certain substances may not be incinerated on board in any location	Duration of incineration; type of incinerated substances	[XX] units of account
14	Illegal discharge of Exhaust Gas Cleaning System (EGCS/scrubber) residue	VI	4, 14	Discharge (operational equipment)	All sea areas, with heightened relevance inside SO _x ECAs; EGCS washwater discharge is also increasingly restricted under national law within ports and territorial sea (areas under national jurisdiction)	Lack of operation of an equivalent method of compliance under Regulation 4 (EGCS/scrubbers)	[XX] units of account

For the six record-book offences (Oil, Cargo and Garbage Record Books), the minimum fine indicated in the draft Decision refers to cases in which a quantity of 1 tonne was not recorded, or entries are missing for a period of more than one week; such violations are treated as continuing offences, beginning when no proper entry is made.

In respect of the “Where the Offence May Occur” column in the Table, the zones are derived from the location-based provisions of MARPOL “Areas under national jurisdiction” denotes the territorial sea and exclusive economic zone; “high seas” denotes waters beyond national jurisdiction. MARPOL Special Areas apply under Annex I (Mediterranean, Baltic, Black Sea, Red Sea, Gulfs area, Gulf of Aden, Antarctic, North West European waters, Southern South African waters), Annex II (Antarctic area only), Annex IV (Baltic Sea) and Annex V (Mediterranean, Baltic, Black Sea, Red Sea, Gulfs area, North Sea, Antarctic, Wider Caribbean region); Annex III designates no Special Area. Emission Control Areas (ECAs) apply under Annex VI (Baltic Sea, North Sea, North America, US Caribbean Sea, Mediterranean Sea, and, from 2026–2027, the Canadian Arctic and Norwegian Sea).¹¹

A.2. THE DEGREE OF CULPABILITY OR FAULT OF THE RESPONSIBLE PERSON:

The discharge alone is not sufficient for a ship to be found non-compliant with the MARPOL provisions. Under the applicable national legislation, minimum fines are imposed on offenders of MARPOL based on certain circumstances ascribing the degree of culpability of offenders. Thus, in order to determine the said degree of culpability, it is important to identify the circumstances of the violation and the intentionality or otherwise of a violation.

a. Unintentional discharge:

Unintentional discharges imply the absence of *mens rea*¹² to cause harm to the marine environment. Violations may occur because of accidental discharge or emergency discharges into the sea to save lives and vessels. The requirement of MARPOL is that such discharges must be immediately entered into the ship’s logbook and reported without delay (e.g. Annex II, Regulation 15). Fines under these circumstances will arise where evidence of non-compliance in prevention is discovered.

b. Intentional discharge:

Intentional discharges, on the other hand, may occur beyond the normal allowable operational discharges/emissions as controlled and regulated by MARPOL. Behavioural patterns such as recklessness, negligence, intentional sideling of guidelines to reduce cost etc. are used to qualify the degree of illegal behaviour and the comparative fines or consequences thereof. Such elements of intentionality can further be seen in:

- falsification of record books;
- bypassing of pollution prevention equipment;
- tampering with the oil content monitor of the oily water separator;
- discharge of Noxious Liquid Substances (NLS) or dirty ballast water at night to avoid detection surveillance; or
- discharge of NLS or dirty ballast outside the zones allowable by MARPOL.

¹¹ Designations current per IMO document MEPC.1/Circ.778/Rev.5 (9 May 2025).

¹² The “guilty mind”, i.e., the intent element of an offence.

As discharges/emission violations are very common, the penalty for such violations must, therefore, be steeper.

c. Intentional discharge by virtue of normal marine operations

It is acknowledged that certain discharges/emissions are unavoidable due to the normal maritime operations such as air pollution by vessels and release of noxious substances by virtue of tank cleaning or de-ballasting. MARPOL considers the extent of possible damage caused by such discharges/emissions and thus through research and collaborations set guidelines and regulations for discharge of such liquids, for example, in order to minimize damage to the sea. To this extent, guidelines put in place include:

- stripping techniques which specify discharge levels;
- reception facilities for initial dumping;
- distance restrictions for dumping of wastes;
- licensing/certification criteria for transportation of chemicals by tankers to minimize the risk of harm;
- the stringent imposition of Cargo Record Book (CRB) on board every ship; and
- imposition of guidelines on how to fill out the CRBs.

Failure to comply with such guidelines will be deemed a violation and will be liable to fines and other consequences in line with the Convention.

Liquid substances posing a threat of harm to the marine environment are divided into four categories, X, Y and Z, quoting the level of allowable discharges or outright bans thereof, as well as the guidelines with which any allowable discharges are to be exercised. The fourth is *Other Substances*. This refers to substances which have been evaluated and found to fall outside the category of X, Y and Z because they are considered to present no harm to marine resources, human health, amenities, and other legitimate uses of the sea when discharged into the sea from tank cleaning or deballasting operations. The discharge of bilge or ballast water or other residues and mixtures containing these substances are not subject to any requirements of MARPOL Annex II.

d. Discharge in special/restricted zones and Emission Control Area

In Annex I – Prevention of pollution by oil, Annex II – Control of pollution by noxious liquid substances, Annex IV – Prevention of pollution by sewage from ships, and Annex V – Prevention of pollution by garbage from ships, MARPOL defines certain sea areas as "special areas" in which, for technical reasons relating to their oceanographical and ecological condition and to their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under the Convention, these special areas are provided with a higher level of protection than other areas of the sea.

Annex VI – Regulations for the Prevention of Air Pollution from Ships establishes certain Sulphur Oxide (SO_x) Emission Control Areas with more stringent controls on Sulphur Emissions and Nitrogen Oxides (NO_x) Emission Control Areas for Tier III NO_x emission standards. Due to strict regulations aimed at reducing airborne pollution by limiting sulphur content of fuel oil to a maximum of 0.10% m/m, vessels are required to either switch to low-sulphur fuel or use exhaust gas cleaning systems (scrubbers) to remain compliant.

Special areas under MARPOL are as follows:

Adoption, entry into force & date of taking effect of Special Areas ¹³			
Special Areas	Adopted #	Date of Entry into Force	In Effect From
Annex I: Oil			
Mediterranean Sea	2 Nov 1973	2 Oct 1983	2 Oct 1983
Baltic Sea	2 Nov 1973	2 Oct 1983	2 Oct 1983
Black Sea	2 Nov 1973	2 Oct 1983	2 Oct 1983
Red Sea	2 Nov 1973	2 Oct 1983	*
"Gulfs" area	2 Nov 1973	2 Oct 1983	1 Aug 2008
Gulf of Aden	1 Dec 1987	1 Apr 1989	*
Antarctic area	16 Nov 1990	17 Mar 1992	17 Mar 1992
North-West European Waters	25 Sept 1997	1 Feb 1999	1 Aug 1999
Oman area of the Arabian Sea	15 Oct 2004	1 Jan 2007	*
Southern South African waters	13 Oct 2006	1 Mar 2008	1 Aug 2008
Annex II: Noxious Liquid Substances			
Antarctic area	30 Oct 1992	1 Jul 1994	1 Jul 1994
Annex IV: Sewage			
Baltic Sea	15 Jul 2011	1 Jan 2013	**
Annex V: Garbage			
Mediterranean Sea	2 Nov 1973	31 Dec 1988	1 May 2009
Baltic Sea	2 Nov 1973	31 Dec 1988	1 Oct 1989
Black Sea	2 Nov 1973	31 Dec 1988	*
Red Sea	2 Nov 1973	31 Dec 1988	*
"Gulfs" area	2 Nov 1973	31 Dec 1988	1 Aug 2008
North Sea	17 Oct 1989	18 Feb 1991	18 Feb 1991
Antarctic area (south of latitude 60 degrees south)	16 Nov 1990	17 Mar 1992	17 Mar 1992
Wider Caribbean region including the Gulf of Mexico and the Caribbean Sea	4 Jul 1991	4 Apr 1993	1 May 2011
Annex VI: Prevention of air pollution by ships (Emission Control Areas)			
Baltic Sea (SO _x) (NO _x)	26 Sept 1997 7 July 2017	19 May 2005 1 Jan 2019	19 May 2006 1 Jan 2021****
North Sea (SO _x) (NO _x)	22 Jul 2005 7 July 2017	22 Nov 2006 1 Jan 2019	22 Nov 2007 1 Jan 2021****
North American ECA (SO _x and PM) (NO _x)	26 Mar 2010	1 Aug 2011	1 Aug 2012 1 Jan 2016***
United States Caribbean Sea ECA (SO _x and PM) (NO _x)	26 Jul 2011	1 Jan 2013	1 Jan 2014 1 Jan 2016***
Mediterranean ECA (SO _x and PM)	16 Dec 2022	1 May 2024	1 May 2025
North-East Atlantic ECA (NO _x) (SO _x)	1 May 2026	1 Jan 2027	1 Sep 2027***** 1 Sep 2028

* The Special Area requirements for these areas have not yet taken effect because of lack of notifications from MARPOL Parties whose coastlines border the relevant special areas on the existence of adequate reception facilities (Regulations 38.6 of MARPOL Annex I and 5(4) of MARPOL Annex V).

¹³ https://www.imo.org/en/ourwork/environment/pages/special-areas-marpol.aspx?utm_source=chatgpt.com.

** The new special area requirements, which entered into force on 1 January 2013, will only take effect upon receipt of sufficient notifications on the existence of adequate reception facilities from Parties to MARPOL Annex IV whose coastlines border the relevant special area (Regulation 13.2 of the revised MARPOL Annex IV, which was adopted by Resolution MEPC.200(62) and which entered into force on 1 January 2013).

*** A ship constructed on or after 1 January 2016 and which is operating in these emission control areas shall comply with NOx Tier III standards set forth in Regulation 13.5 of MARPOL Annex VI.

**** A ship constructed on or after 1 January 2021 and which is operating in these emission control areas shall comply with NOx Tier III standards set forth in regulation 13.5 of MARPOL Annex VI.

***** A ship constructed on or after 1 January 2027 and which is operating in these emission control areas shall comply with NOx Tier III standards set forth in regulation 13.5 of MARPOL Annex VI.

A.3. CRITERIA FOR IMPOSITION OF FINES

MARPOL does not prescribe specific criteria for determining the level of fines or other sanctions. Instead, as stated above, Article 4 requires Contracting Parties to prohibit violations of the Convention and to establish sanctions that are adequate in severity to discourage violations. Additionally, Article 6 deals with detection of violations and enforcement by establishing procedures for detecting, investigating and reporting violations. However, like Article 4, it does not provide sentencing or penalty assessment criteria.

Evidently therefore, MARPOL leaves the determination of penalties, including the criteria for setting fines, entirely to national legislation and judicial practice. The draft Study thus analyses the criteria applied by the CPs when determining sanctions and assesses the extent to which these reflect the principles of effectiveness, proportionality, dissuasiveness and the polluter pays principle.

As noted above, these are not prescribed by MARPOL, but they are widely reflected in domestic legislation and enforcement practice, for example, national legislation implementing MARPOL such as Merchant Shipping Acts, Marine Pollution legislation, Environmental Protection Acts, Criminal Codes, Administrative Sanctions Acts, or Judicial or Enforcement Guidelines. Although the criteria used by States vary (as seen in the responses received from the CPs in the questionnaire), most are seen to consider most of the criteria listed below.

These criteria are used also in the *consolidated draft Decision to apply criteria for a common minimum level of fines for each offense provided for under the Annexes to MARPOL*, within the framework of the Barcelona Convention, which forms an integral part of the documents used for this draft Study, under the rubric “GENERAL CRITERIA”.

- a. **Previous records of violation** will attract stiffer fines and consequences. Likewise, violations of a continuing nature e.g. violations of the duty to keep the Oil Record Book, the CRB, and the Garbage Record Book properly maintained, are regarded as continuing offences where the offence begins when no proper entry is made.
- b. **Quantity and type of illegally discharge**
- c. **The damage caused by an illegal discharge to the environment or human health**, including, where relevant, its impact on fishing, tourism and coastal communities. migratory patterns in the affected area should also be considered.
- d. **Level of cooperation with authorities in investigating the offence**, either circumventing or obstructing the investigation, or assisting the authorities in said investigation.
- e. **Any economic benefits generated or expected to be generated from the offence.**
- f. **Gross tonnage of the ship, type of the ship, and type of pollutant.**

- g. **Period of time during which no Record Book was kept on board** (level of fine should be based on the duration of time in which no Oil or Garbage Record Book was kept).
- h. **Whether the discharge has been instantaneous or at a moderate rate.**

A.4. JURISDICTION FOR ENFORCEMENT

Enforcement jurisdiction and offense criteria are determined by the specific maritime zone where the discharge occurred i.e. high seas, exclusive economic zone of the coastal State, or ports.

MARPOL requires that jurisdiction be construed in light of international law in force at the time of application in order to safeguard coastal, flag and port States jurisdiction, among other things. The implementation of MARPOL has been infused as a jurisdictional legislative responsibility. This responsibility and obligation are therefore bestowed upon parties based on jurisdiction as follows:

- a. Flag State jurisdiction;
- b. Coastal State jurisdiction; and
- c. Port State jurisdiction.

The primary responsibility for the implementation of MARPOL and preservation of technical standards set by MARPOL is on member States' regulatory activities such as, but not limited to, inspection of vessels at regular intervals and certification for compliance.¹⁴

a. *Flag State jurisdiction:*

Under MARPOL, a flag State has the primary responsibility and jurisdiction to ensure its registered ships comply with environmental standards, regardless of where the ship sails. Flag States are required to conduct surveys, issue international pollution prevention certificates, investigate violations, and impose adequate penalties on offending vessels. The Convention allows flag States to delegate the conduct of surveys and the issuance of certificates to Recognized Organizations, though the ultimate responsibility to ensure compliance remains with the flag State itself.

b. *Coastal State jurisdiction:*

The legislative jurisdiction of the coastal State requires that it prohibits violations and establishes sanctions for any violation of the MARPOL Convention which occurs in their jurisdiction. Thus, MARPOL may be applied consistently with this grant of jurisdiction inclusive in the EEZ of the coastal State. The full extent of coastal State enforcement jurisdiction is naturally displayed in the territorial sea, where the only concession to the other users of the sea is the traditional right of innocent passage. If a foreign ship is voluntarily in a port of an affected coastal State, that State may institute proceeding for any violation of the MARPOL that has occurred within the territorial sea or EEZ of the coastal State.

c. *Port State Jurisdiction:*

The jurisdiction of a port State over a vessel is always exercised assuming that it has entered voluntarily into the port and has consented to its jurisdiction. Port State jurisdiction is a concomitant expansion of the coastal State's jurisdiction over the EEZ, especially in view of the obligations for the protection and preservation of the marine environment to be exercised in the EEZ. UNCLOS gives the port State the power to undertake enforcement action in

¹⁴ Fitzmaurice (n 1) 61.

respect of any discharge from a vessel outside the internal waters, territorial sea and exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization of general diplomatic conference, provided that the violation has caused or likely to cause pollution in the internal waters, territorial sea or exclusive economic zone of the State instituting the proceedings.

d. Enforcement by MARPOL

Article 6 of MARPOL requires Parties to the Convention to co-operate in monitoring compliance with it and detecting violations. Where requested or felt necessary, a coastal, or port State shall inspect a ship to collect evidence to verify whether it has made a prohibited discharge and, where such a discharge is proved, shall take appropriate measures. A port State shall, in response to a request from another Party, inspect a ship in order to collect evidence or to verify whether it has committed a violation in other waters. National legislation and maritime administrations are required to fulfil these obligations. To enforce the provisions of MARPOL, a State Party must domesticate the provisions of the Convention. This includes the passing of enabling regulations in respect of all the technical Annexes to which the State is bound, and the adoption of a framework of sanctions against violations within the jurisdiction of a State Party.

PART B - Comparative Review of National Penalty Regimes

A comparative analysis of the submitted responses to the circulated questionnaires reveals significant differences between the existing penalty regimes within the CPs relating to MARPOL offences. Some jurisdictions rely primarily on administrative fines, while others provide a combination of criminal sanctions (imprisonment), administrative penalties, vessel detention, and environmental remediation obligations. Furthermore, as per the questionnaire request on the availability of data on penalties actually imposed during 2020–2025, the responses vary considerably as provided in the analysis below.

B1. Distinction Between Penalties Provided by Law and Penalties Effectively Imposed

- penalties provided by law (administrative and criminal)
- penalties effectively imposed in practice in the period 2020-2025 (where data is available)

Summary of findings

For penalties provided by law which include administrative and criminal penalties, the principal conclusion from the responses submitted is that while most countries provide significant statutory penalties for MARPOL violations, evidence of actual enforcement is limited. Only two CP's provide sizable data on sanctions imposed during 2020–2025.

The findings of the analysis of responses to the questionnaire are the following:

1. Three CPs predominantly use **Administrative Enforcement**. These systems rely primarily on monetary penalties imposed by maritime or administrative authorities, with limited or no reported use of imprisonment. Two of the three however provide substantial maximum penalties.
2. Three CPs rely on **Mixed Criminal-Administrative Enforcement**. These have combined administrative sanctions with criminal liability, vessel detention, and other

coercive measures. One of the CPs is particularly noted for combining imprisonment, substantial fines, suspended sentences, and community service.

3. One CP adopts the severest statutory regime, with imprisonment of up to seven years and very high fines in local currency for serious pollution offences.
4. For penalties effectively imposed in practice in the period 2020-2025, the study is availed of data from two CPs. One of the CPs recorded hundreds of sanctions annually and very substantial monetary recoveries. The second CP reported both court judgments and administrative fines.

B.2. Identification of Fine Levels, Procedures and Ancillary Sanctions

- minimum, average, maximum level of fines
- administrative vs criminal procedures
- ancillary sanctions (detention, confiscation, environmental compensation, activity suspension)

Summary of findings

The draft Study reveals that many CPs use a two-fold system, where the same MARPOL violation can trigger administrative enforcement for routine cases and criminal prosecution for serious, intentional, or repeat offenses. The key distinction which is employed is administrative vs criminal procedures. For the former, enforcement is by regulatory or maritime authorities, and this usually involves fines, detention, certificate suspension, or operational restrictions without a criminal conviction. For the latter, prosecution before a court of law is required that may lead to imprisonment, criminal fines, community service, or suspended sentences.

1. Based on the specific fine amounts stated in the responses received, identifying the minimum, average and maximum level of fines is challenging because the fine levels vary substantially. The CPs have reported penalties in different currencies and some in Special Drawing Rights (SDR). Some figures are individual penalties, whilst other figures are annual totals of sanctions imposed. In addition, these are used for different types of MARPOL violations.
2. Based on what has been stated in the responses in relation to minimum and maximum fine levels for violations (excluding annual totals), the lowest stated violation fine is 1,281 SDR from one CP for Oil Record Book violations and the highest stated violation fine is 100,000,000 in local currency by another CP for serious illegal discharge offences.
3. Based on the answers provided the sanctions can be grouped into administrative procedures and criminal procedures.
 - a. Administrative procedures as stated by CPs in their responses, include administrative fines imposed by maritime authorities, inspectors, port authorities, or other administrative bodies; suspension of certificates; vessel detention or prohibition from sailing until compliance; refusal of port clearance or authorization to enter/leave a port; and on-the-spot fines issued by inspectors. Some examples of administrative procedures employed by CPs include the following:
 - i. failure to report a pollution incident, failure to maintain manuals, and failure to maintain pollution record books are handled through an administrative procedure, such as fines, suspension of certificates, and possible vessel detention.

- ii. violations such as illegal bypass piping, Oil Record Book deficiencies, and certificate violations are sanctioned through administrative procedures with fixed fines.
 - iii. illegal discharge of oil may result in administrative fines imposed promptly by inspectors ("on-the-spot fines").
 - iv. the Authority may impose administrative penalties up to €100,000 and port authorities may prevent a vessel from entering or leaving port until fines are paid.
 - v. cases are handled through administrative procedures by the Maritime Administration, with administrative fines for oil, sewage, garbage, and air-emission violations.
 - vi. administrative sanctions include substantial fines and prohibition from navigation if payment or security is not provided.
 - b. Criminal procedures as reported by CPs in their answers include criminal sanctions imposed by courts, including imprisonment (e.g., 6 months to 7 years depending on the violation and the CP in question); conditional discharge/suspended sentences; community service imposed on individuals (captains/officers of said vessel); and criminal prosecution before a court. Some examples of criminal procedures employed by CPs include the following:
 - i. recidivism for illegal oil discharge may result in imprisonment and fines, imposed by a court or prosecutor depending on the circumstances.
 - ii. criminal fines imposed by courts.
 - iii. imprisonment ranging from 1–3 years for illegal oil discharges.
 - iv. conditional discharge (suspended sentences).
 - v. community service in some cases.
 - vi. first offenses may result in imprisonment or fines, while repeat offenses carry higher imprisonment terms and fines.
 - vii. serious MARPOL violations can result in court-imposed fines plus imprisonment ranging from 3–7 years, depending on vessel size and violation severity.
4. Based on the responses received, the ancillary (secondary) sanctions that were identified include detention of vessel, environmental compensation/remediation and suspension of activities/operational restrictions.
 5. Some CPs explicitly provide for “vessel detention” for illegal oil discharge. The responses also state that vessels may be detained for failures such as reporting pollution incidents, maintaining required manuals, or maintaining pollution record books. Some require that “the violator shall be committed to removing the effects of the violation within the deadline”, which is a form of environmental remediation or compensation. The same section also refers to environmental consequences accompanying the sanctions. Several CPs use measures which effectively suspend operations such as suspension of certificates, prohibition from sailing until compliance, refusal of authorization for a vessel to leave or enter port, and vessels being prohibited from navigation until fines are paid or security is provided.
 6. In identifying ancillary (secondary) sanctions as requested by the draft Study, i.e. (detention, confiscation, environmental compensation, activity suspension) a categorization based on the responses received would reveal the following:
 - i. **Detention:** Present (vessel detention; vessel may be detained).
 - ii. **Confiscation:** Not expressly mentioned.
 - iii. **Environmental compensation/remediation:** Present (obligation to remove effects of the violation).

- iv. **Activity suspension:** Present (certificate suspension, prohibition from sailing/navigation, denial of port departure/entry authorization).

B.3. Assessment of Convergence/Divergence and Enforcement Gaps

- the degree of convergence/divergence among national penalty systems
- enforcement gaps and practical constraints

Summary of findings

An overall assessment of the degree of convergence/divergence among national penalty systems enforcement gaps and practical constraints as evidenced in the submitted responses suggests moderate convergence at the prescriptive level but strong divergence at the enforcement level as follows:

- **Convergence:** All CPs implement MARPOL through domestic penalties and generally rely on fines as the core sanctioning mechanism, often supplemented by vessel-control measures.
 - **Divergence:** There are major differences in penalty levels, use of imprisonment, choice of enforcement authority, calculation methodologies, and availability of alternative sanctions.
1. In respect of areas of convergence, all CPs treat illegal discharges and other MARPOL violations as punishable offences. The same broad categories recur across CPs from illegal discharge of oil (Annex I) to air emissions/incineration (Annex VI), indicating a common commitment to implementing MARPOL obligations through domestic law.
 2. Financial penalties as a tool for primary sanction is the dominant enforcement mechanism in every CPs' system examined based on the responses submitted. For example, CPs have imposed criminal fines and/or administrative fines for MARPOL equipment, Record Book and certification violations, oil pollution offences and other discharges. The said administrative fine levels are linked to the size of the vessel and the type of the pollutant.
 3. In respect of financial penalties, it is noteworthy that another area of convergence is found in that several CPs use supplement fines with the application of other operational restrictions including vessel detention, suspension of certificates, prohibition from sailing and refusal of port clearance.
 4. In respect of areas of divergence, the most striking discrepancy is the penalty severity. For example, CPs scale of penalties, as stated in the responses submitted, reflect administrative fines for oil discharges range from around 1,281–2,135 SDR up to 313,333 SDR, or up to €601,000, or up to 100,000,000 (in local currency) and imprisonment. One CP stated that fines may reach millions, and another stated that large tonnage-based sanctions generate hundreds of millions in local currency, demonstrating that the deterrent effect of sanctions varies strongly between CPs.
 5. The draft Study shows that CPs use different methods for calculating fines including fixed penalties, SDR-based schedules, vessel-tonnage formulae, volume and surface-area criteria and case-by-case assessment. Consequently, depending on the CP, similar pollution incidents may produce very different financial consequences.

6. Other areas include criminal as opposed to administrative alignment. CPs differ considerably in their enforcement principles. Three CPs prefer primarily administrative models, relying largely on administrative authorities rather than courts. Three CPs rely on mixed administrative-criminal models, combining administrative penalties with criminal prosecution. One CP uses strong criminal models, by imposing lengthy prison terms (3–7 years) alongside very large fines for serious pollution offences.
7. The use of imprisonment by CPs based on the responses submitted ranges from absent to fundamental within national enforcement frameworks. One CP appears to rely solely on administrative fines. One imposes imprisonment together with fines in cases of recidivism and one authorises imprisonment of 3-7 years for serious violations.
8. In respect of available sanctions, many of the CPs rely only on fines and administrative measures whilst one CP demonstrates the use of a broad measure including fines, imprisonment, conditional discharge/suspended sentences and community service.

Therefore, the national systems can be characterized as exhibiting high convergence in legal objectives and offence categories, but substantial divergence in deterrence intensity and enforcement model. This suggests that MARPOL has produced a common regulatory framework, while States retain considerable discretion over how severely and through which mechanisms violations are punished.

In respect of **enforcement gaps and practical constraints**, the legal framework appears robust on paper, but several enforcement gaps and practical constraints emerge from the CPs responses.

1. Based on the submissions, major enforcement gaps include the **difficulty of detecting violations** at sea, particularly sewage discharges. One CP explicitly notes that it has not processed sewage-discharge cases because “*there are no sensors that detect the illegal discharge of sewage.*” This highlights a fundamental monitoring problem. The practical constraints in this case are that surveillance technology, vessel tracking, inspections, and environmental monitoring systems are not uniformly available among CPs.
2. **Incomplete regulatory frameworks** is a challenge as some of the CPs acknowledge that implementing regulations are still under development to ensure full enforcement of offences and sanctions. This means that even where legislation establishes penalties, operational procedures, investigative powers, or prosecutorial mechanisms, may not yet be fully functional. A major practical constraint in this regard is that delays in drafting secondary legislation can create uncertainty about how sanctions should be applied.
3. **Complex and fragmented legislation** was another challenge identified from the responses received. One CP explicitly states that it is “*very difficult to list all the applicable fines*” because of the complexity of the legislative framework. This status quo may make compliance, inspection, prosecution, and judicial review more burdensome for both regulators and ship operators.

4. As shown above, CPs rely heavily on administrative procedures rather than criminal prosecution.¹⁵ The gap in enforcement in this case is that although administrative systems allow rapid enforcement, it may not provide sufficient deterrence for serious or repeated violations, especially when compared with criminal sanctions.
5. The responses reveal **significant differences in sanction levels**. Some CPs impose significant amounts in fines and years of imprisonment, while others prescribe relatively modest fixed fines for similar MARPOL offences. This inconsistency in penalty among CPs gives rise to critical disparities which may create uneven compliance incentives.
6. The responses also show that there is lack of standardisation in penalty calculations as CPs use different methodologies for assessing penalties, including vessel gross tonnage, volume and surface area of pollution, sulphur content, volume and surface area of pollution and time spent in port. The practical constraint in this case is the lack of harmonised assessment criteria which can make enforcement inconsistent and complicate regional cooperation.
7. The responses submitted show **limited case processing in certain violation categories** for some MARPOL Annexes as CPs report few or no processed cases despite having sanctioning powers.¹⁶ This enforcement gap in the low numbers of detected or prosecuted cases may indicate under-reporting, limited inspections, evidence difficulties, or insufficient enforcement capacity rather than full compliance.
8. The responses submitted further reveal **challenges in enforcing compliance against foreign vessels** as several CPs rely on vessel detention, refusal of departure clearance, suspension of certificates, or requirements to provide financial guarantees. The practical constraint here is that these measures require coordination among port authorities, maritime administrations, and courts, particularly when dealing with foreign-flagged ships that may leave jurisdiction quickly.
9. The submissions of CPs thus suggest that the principal challenge is not the absence of penalties, as many provide substantial fines, imprisonment, vessel detention, and administrative sanctions. Rather, the main weaknesses are related to enforcement as stated in paragraphs 1-8 above. Accordingly, strengthening surveillance technologies, harmonising enforcement approaches, improving inspector capacity, and accelerating implementation of supporting regulations would likely have a greater impact than simply increasing penalties.

B.4. Alignment with Proportionality, Effectiveness, Dissuasiveness and the Polluter Pays Principle

Assessment of the alignment of the penalties set in national penalty systems with the principles of:

- proportionality
- effectiveness
- dissuasiveness
- polluter pays principle

¹⁵ Examples include fixed administrative fines, inspector-issued on-the-spot penalties, and sanctions imposed by maritime authorities.

¹⁶ For example, one administration reports no sanctioning cases under Annex II during the reporting period.

1. Applicable Assessment Framework

As explained above, Article 4 of MARPOL requires States to impose sanctions for the violations of its provisions, adequate in severity to deter their occurrence. While MARPOL does not elaborate on the principles to be availed of for the purposes of setting adequate penalties. EU environmental law can be taken as an example. In EU environmental law, sanctions on environmental infringements should be **effective, proportionate and dissuasive**. Member States retain discretion regarding the type and level of penalties, but sanctions must ensure compliance and provide a genuine deterrent. An example is the EU's Environmental Crime Directive (Directive 2008/99/EC), the primary legislative framework addressing environmental crime.¹⁷ It mandates that Member States treat significant violations as criminal offenses, ensuring effective, proportionate and dissuasive penalties, aiming to create a unified approach to combating environmental crime across the EU.

Also at the core of EU environmental policy is the polluter pays principle (PPP) which requires that the person responsible for environmental damage bears the costs of prevention, remediation and restoration, rather than society at large.¹⁸

Summary of findings

National systems described in the questionnaire can therefore be assessed against four criteria:

- **Proportionality** – penalties correspond to the gravity of the infringement and environmental harm.
- **Effectiveness** – sanctions can realistically secure compliance and enforcement.
- **Dissuasiveness** – penalties are sufficiently severe to discourage future violations.
- **Polluter Pays Principle** – offenders bear the costs of environmental damage and remediation.

1. Proportionality

Strong Alignment

Several countries demonstrate a graduated sanctioning structure that links penalties to:

- the seriousness of the pollution event;
- vessel size;
- recurrence of offences; and
- type of pollutant.

For example, in one of the CPs, illegal oil discharges attract fines ranging from approximately 1,430 SDR to 313,333 SDR, with imprisonment (1–3 years) available depending on severity. Repeat offences trigger higher sanctions. In another, sanctions increase according to vessel tonnage and pollutant type, with imprisonment ranging from 3–7 years and fines reaching 100 million in local currency for serious violations. Another CP applies criteria based on the volume and surface area of oil pollution and, for air emissions, engine power, excess sulphur and time spent in port.

These systems reflect proportionality because they distinguish between minor administrative non-compliance and major pollution incidents. Some show to have weaker alignment as per the responses submitted. For example, one CP relies on relatively low fixed administrative fines (1.281–2.135 SDR) for documentation and equipment-related breaches and another imposes

¹⁷ Crime – The Law – The Actions – Environmental the Penalties, <https://eimf.eu/environmental-crime-the-law-the-actions-the-penalties/>.

¹⁸ Ensuring that polluters pay – toolkit, https://environment.ec.europa.eu/economy-and-finance/ensuring-polluters-pay_en.

fixed fines for broad categories of MARPOL violations without clear differentiation based on scale or environmental consequences.

2. Effectiveness

Strong Alignment

Many systems combine financial penalties with operational enforcement measures, such as:

- vessel detention;
- suspension of certificates;
- prohibition from sailing;
- refusal of port clearance; and
- imprisonment.

For example, one CP combines fines, vessel detention and mandatory removal of the effects of pollution. Another stated that it may impose administrative penalties up to €100,000 and prevent vessels from entering or leaving port until fines or guarantees are paid, whilst another CP states that it can prohibit navigation until sanctions are satisfied. These measures increase enforcement effectiveness because they directly affect a vessel's commercial operations and ensure payment.

Yet there were still some who report practical enforcement challenges, such as difficulties detecting illegal sewage discharges because monitoring technologies are limited and another indicates that implementing regulations are still under development, potentially limiting practical enforcement despite severe statutory penalties.

3. Dissuasiveness

Strong Alignment

Several countries provide sanctions likely to deter operators. Examples of this by CPs include reports of fines reaching millions and possible imprisonment for repeat offenders, combining substantial fines, imprisonment and criminal liability, providing exceptionally high fines and imprisonment of up to seven years and imposing substantial tonnage-based penalties and reports of hundreds of sanctions annually, amounting to hundreds of millions in local currency. The combination of financial, criminal and operational consequences is generally consistent with the EU requirement that environmental sanctions be dissuasive.

Potential weaknesses may be seen where fines are relatively small compared with commercial shipping revenues, or where violations can be treated as a routine operational cost. This concern may arise in those systems relying solely on low administrative fines.

4. Polluter Pays Principle

Strong Alignment

The clearest examples are systems requiring polluters to bear remediation costs in addition to penalties. Some examples by CPs include expressly requiring offenders to remove the effects of the violation within a specified deadline, in addition to paying fines or that cleaning expenses are separate from administrative or criminal fines, meaning the polluter may bear both sanctions and remediation costs or CPs may recover expenses and require guarantees before allowing vessel movements.

These mechanisms are highly consistent with the PPP because they adopt the environmental costs of pollution. The principle requires polluters to pay for prevention, remediation and restoration measures.

Some CPs have only partial Alignment as they primarily describe fines and imprisonment but do not explicitly mention environmental restoration, clean-up obligations and compensation for ecological damage. In such cases, sanctions may punish misconduct but do not clearly ensure full recovery of environmental costs, resulting in only partial implementation of the PPP.

Principle	Assessment
Proportionality	Generally strong where sanctions vary according to pollutant type, vessel size, severity and recidivism; weaker where fixed fines apply.
Effectiveness	Strong due to administrative enforcement powers, vessel detention and port restrictions, although detection challenges remain.
Dissuasiveness	Generally strong, particularly where high fines, imprisonment and operational restrictions are available.
Polluter Pays Principle	Mixed. Strong where remediation and clean-up obligations accompany penalties; weaker where sanctions are limited to fines or imprisonment without explicit environmental restoration requirements.

B.5. Overall Conclusion

The penalty systems described in the responses to the questionnaire generally exhibit a moderate to strong alignment with the principles of proportionality, effectiveness and dissuasiveness. The systems most closely aligned with all four principles are those that combine graduated penalties, criminal liability, administrative enforcement powers, vessel detention, and mandatory remediation of environmental damage, thereby ensuring that sanctions are not only punitive but also restorative and preventive.

PART C - Assessment of General and Specific Criteria for Determining Penalties

This part of the draft Study contains an assessment of the criteria applied by the CPs when determining the nature, type, and quantum of penalties imposed for violations of MARPOL and its Annexes, with particular focus on illegal discharge of pollutants from ships. The analysis evaluates how each jurisdiction explicitly applies or indirectly reflects the nine key sanctioning criteria in the questionnaire provided, namely:

- Quantity or estimated quantity of pollutants discharged
- Type and harmfulness of the substance/pollutant
- Sensitivity of the affected area (Special Areas under MARPOL, ECAs, MPAs, etc.)
- Ship characteristics (type, gross tonnage, operational profile)
- Degree of culpability or fault of the responsible subject (intent, negligence, recklessness)
- Recurrence of offence

- Damage caused by an illegal discharge to the environment or human health
- Level of cooperation with Authorities or obstruction attitudes during inspection/investigation
- Economic benefit generated or expected to be generated from the violation

C.1. Criterion-by-Criterion Analysis (Nine Sanctioning Criteria)

1. Quantity or Estimated Quantity of Pollutants Discharged

The volume or surface area of a discharge is one of the most evidential and assessable factors available to enforcement authorities. The responses received from the CPs show that this factor is more widely and explicitly used.

Explicit:

- One of the CP's remains the most transparent in applying quantity. For oil discharges it applies two equal-weight criteria, surface area (50%) and volume (50%); for garbage, the measure is cubic metres rather than weight.
- A second CP's own criteria list "type and quantity of the pollutant" directly.
- A third CP's nine-factor discretionary test which is used by their administration to set the actual fine within and around the fixed indicative bands, explicitly lists "quantity discharged" as a factor.
- A fourth CP's response opens with "quantity and harmfulness of the pollutant" as an explicitly named criterion.

Discretionary:

- One CP's penalty is described as based on "the extent of the pollution," which one could surmise touches quantity.
- For another CP, a judge "may take into account... the category of pollutant," which speaks to type rather than quantity specifically, so quantity itself remains discretionary.
- A third CP's restrictions are acknowledged to exist but "not in detail," left to the discretion of the person imposing the fine.
- A fourth CP's response indicates that "there is not any provisions for criteria."

2. Type and Harmfulness of the Substance/Pollutant

The nature of the pollutant, that is, its toxicity, persistence, and bioaccumulation potential, directly affects the environmental and public health consequences of a discharge.

Explicit:

- One CP's standard is higher than the legal limit based on the category of petroleum and its derivatives. In its response it mentions that *hazardous substances under Annex II fined at ten times the petroleum-derived base rate* and by its own criteria list, it separately refers to "type and quantity of the pollutant" and "hazardous nature of the substance" as two distinct factors.
- A second CP's judge "may take into account the category of pollutant involved."
- A third CP's ceiling differentiation by Annex causes it to fall under the section of explicit.¹⁹

¹⁹ Illegal discharge of residues of noxious liquid substances: (Regulation 13 of MARPOL Annex II): First offense: six months imprisonment or a fine of up to 7,000 SDR. Repeat offense (second and subsequent offenses): one year imprisonment or double the fine, i.e. up to 13,000 SDR.

- A fourth CP explicitly lists "type and environmental hazard of the substance."
- A fifth CP's criteria test opens with "type of polluting substance/ characteristics" as its first listed factor.
- A sixth CP's response likewise leads with pollutant type and harmfulness.

Discretionary:

- One CP's restrictions are acknowledged to exist but "not in detail," left to the discretion of the person imposing the fine.
- Another CP's flat ordered fines by Annex (noxious substances priced lower than oil) remain the only evidence available, and its own criteria response confirms that no further differentiation exists. Without the Annex provision, it could have been said to be absent.

3. Sensitivity of the Affected Area (Special Areas, ECAs, MPAs, PSSAs)

MARPOL establishes Special Areas and Particularly Sensitive Sea Areas (PSSAs), and IMO has designated Emission Control Areas (ECAs) under Annex VI. Discharges in such areas warrant heightened deterrence given the ecological vulnerability and the international recognition of those waters.

Explicit:

- One CP's criteria list "sensitivity and protection status of the affected marine area" as a factor considered when setting administrative fines.
- A second CP's discretionary test includes "marine area of pollution (anchorage, port, sensitive areas)" as a distinct factor, and separately "coastal pollution / shoreline impact (kilometres of sensitive or non-sensitive coastal area)." Two of the CP's nine factors are directly linked to area sensitivity.
- A third CP's response lists both "sensitivity of the affected area" and "area of pollution" as separate factors.

Discretionary:

- One CP's judge "may take into account... the location of the offense", which equates to a discretionary but named consideration in their response.

Absent:

- One CP's position is notable rather than an oversight. Its response positively states that "distance from nearest land should not be a criterion" for sanctioning sewage discharges.
- A second CP has shown no alignment in its response, unless the statement "not in detail," left to the discretion of the person imposing the fine, is stretched to include this.
- A third CP clearly shows no area-sensitivity factor in either source.

4. Ship Characteristics (Type, Gross Tonnage, Operational Profile)

Explicit/Partial:²⁰

²⁰ This is used to explain when the context is a ship-characteristic factor, but it is specifically limited to engine power for air-emissions calculations rather than serving as a general gross tonnage (GT)-based scaling factor, as is the case of the particular CP.

- One CP's GT-indexed formula²¹ and second's tonnage-threshold sentencing brackets²² remain the two clearest examples. The second CP's response confirms this by referencing "ship characteristics (see the table of MARPOL Annex I violation)" as an express criterion.
- The third CP's criteria list includes "the power of engines in operation" as a factor for Annex VI (sulphur/emissions) cases. This is a ship-characteristic factor but more narrowly to engine power in the air-emissions context rather than a general GT based scaling rule. So rather than fully explicit, it is hereby recorded partial.

Absent:

- Five CP's do not explicitly adjust fines by vessel GT or type as per their recorded responses and leave this factor on judicial or administrative discretion.

5. Degree of Culpability or Fault (Intent, Negligence, Recklessness)

Explicit:

- one CP retains the broadest culpability spectrum: imprisonment for the most serious violations, conditional discharge/suspended sentences, and community service, with courts weighing the subjective element directly.²³
- A second CP's criteria list explicitly names "degree of culpability (intent, negligence, or recklessness)." Although that CP is a purely administrative regime, yet it applies an explicit intent/negligence/recklessness distinction.
- A third CP's discretionary test separately lists "cause of pollution (illegal discharge, accidental, etc.)" and "type of liability (intentional, negligent, etc.)" as two distinct factors used by the Coast Guard/Minister when fixing a fine. That CP, also a purely administrative regime, shows the same pattern as the second CP above.
- A fourth CP's response explicitly combines "culpability (negligence vs. intentional)" with recurrence as a named factor.

Discretionary:

- One CP's severe prison sentencing for large vessel discharges implies, rather than states, a liability limit.
- A second CP's discretion-based approach remains unchanged.
- A third CP's own criteria list does not mention intent, negligence, or recklessness but it does have a GT content in the Annex.

²¹ Illegal disposal of garbage (Regulations 3 and 6 of MARPOL Annex V): For vessels between 150 and 1,000 (inclusive) gross tons, an administrative fine of 1,438.13 TL per gross ton is imposed; for those between 1,000 and 5,000 (inclusive) gross tons, this amount plus an additional 287.64 TL per gross ton is imposed; and for those exceeding 5,000 gross tons, the above amounts plus an additional 33.18 TL per gross ton are imposed. However, for tankers, ships, and other marine vessels larger than 100,000 gross tons, the administrative fine is based on the 100,000 gross ton figure.

²² Illegal discharge of oil (*Regulations 15 and 34 of MARPOL Annex I*): IMPRISONMENT AND FINE (if tanker below 150 gt and other type of vessel below 400 gt with engine above 150 kw) or one of the penalties.

²³ Illegal discharge of oil (Regulations 15 and 34 of MARPOL Annex I): Both criminal fines (imposed by courts) and administrative fines (fixed rates for rapid enforcement). Imprisonment: Ranges from 1 to 3 years depending on the severity of the illegal discharge and the specific act. Conditional Discharge: Common in the form of "Suspended Sentences" or financial undertakings to refrain from future violations. Community Service: Occasionally imposed on individuals (officers/captains) as part of rehabilitation or plea bargains.

Absent:

- One CP clearly shows no applicability of degree of culpability or fault.

6. Recurrence of Offence

Explicit:

- One CP's response provides a fully quantified, mandatory statutory escalator: "in the event of a repeat offence, the terms of imprisonment and the amounts of the fines shall be doubled," with an explicit two-year look-back window from the date of notification of the previous conviction.
- A second CP's explicitly lists "recurrence of the offence". A third CP's criteria list does the same.
- A fourth CP's doubling of both the fine ceiling and imprisonment term on a second offence,²⁴ and fifth CP's mandatory cumulative fine-plus-imprisonment sanction on recidivism,²⁵ remain explicit as recurrence of offence.

Discretionary:

- One CP's response which states that "past incidents should be taken into consideration when deciding" can be considered as an acknowledged, although undetailed, recurrence factor.

Absent:

- Recurrence does not appear among one CP's nine discretionary factors.
- A second CP's response confirms no recurrence provision exists.

7. Damage Caused to the Environment or Human Health

Explicit:

- One CP explicitly lists "environmental and human health damage caused." That CP's own response, however, infers double criteria. For Annex II violations specifically, it "does not require environmental damage caused by the discharge" as a precondition for sanctioning. However, in the section of Criteria, damage becomes a general listed condition.
- A second CP's list names "extent of environmental or human health damage caused" directly. A third CP's "coastal pollution/shoreline impact" factor which is measured in kilometres of sensitive or non-sensitive coastline affected is a concrete, quantifiable damage measure that can be related to this section.

Discretionary:

- One CP's judge "may take into account... the nature and extent of the damage caused, as well as the harm suffered."
- A second CP's parameters "include... the effects of the pollution," though "not in detail" and left to discretion.
- A third CP's institutional practice of using Ministry experts and laboratory testing to formally assess environmental damage is a more developed administrative process, though it remains a case-by-case practice rather than a laid down factor.

²⁴ First offense: six months imprisonment or a fine of up to 7,000 SDR. Repeat offense (second and subsequent offenses): one year imprisonment or double the fine, i.e. up to 13,000 SDR.

²⁵ Law No. 4 of 1994: In case of recidivism, the penalty shall be both imprisonment and the fine provided.

- A fourth CP's response does not add a distinct damage factor beyond "harmfulness of the pollutant," so it remains discretionary, rather than explicit, as it can lead to damage to health and environment.

8. Level of Cooperation with Authorities / Obstruction During Inspection

Explicit/Partial:

- One CP explicitly lists as a factor the "level of cooperation with authorities during inspection or investigation".
- A second CP response likewise closes with "level of cooperation during the investigation", as an explicitly named factor.
- A third CP's discretionary test includes "notification of incident (report by responsible party or third person)" which is an effective language for a self-reporting/voluntary-disclosure statement. That CP also separately uses "pollution response measures-conduct of the responsible party," which can be said to distinguish immediate response, delayed response, and no response by the responsible party.
- A fourth CP's list includes "whether clean-up activities were carried out voluntarily by the ship representatives" which can be taken as a cooperation factor, though narrower in scope to the cooperation language used by the first and second CP's referenced above. Consequently, it is here listed as partial.

Discretionary:

- One CP's reference to "cooperation on technical matters relating to pollution... regularly carried out with the administration of shipping and ports" appears to describe inter-agency cooperation between the Ministry of Environmental Protection and port/shipping authorities, rather than a cooperation credit extended to the responsible vessel operator. Therefore, since it does not clearly answer the survey's cooperation question clearly, it is tabled as discretionary.
- No cooperation or obstruction factor is disclosed for three CP's in either source.

9. Economic Benefit Generated or Expected from the Violation

Explicit:

- One CP's criteria list closes with "economic benefit obtained from the violation" as a directly named factor. It is the only CP to explicitly state this as a sanctioning criterion in its own words.

Discretionary:

- Three CP's do not have clear responses on economic-benefit assessments. However, alternative mechanisms remain available among them, that is, a GT-based formula for one, wide court discretion for the second, and broad administrative cap for the third, that can be used to ensure that this criterion is met.

Absent:

- The responses of four CP's do not mention economic benefit generated or expected from the violation.

C.2. Conclusions

Based on the above comparative analysis, the following can be concluded:

1. Type/harmfulness of the pollutant is the most consistently adopted explicit criterion, present in six of eight CPs.
2. Vessel gross tonnage is the most widely used explicit ship-characteristic indicator.
3. Recurrence of offence is recognised, in explicit or discretionary form, in six of eight CPs.
4. Vessel detention as a collateral non-monetary sanction remains in use across three CPs, providing a powerful enforcement tool that complements fines as a penalty.

C.3. Comparative Matrix: Penalty Criteria Across Jurisdictions

Penalty Criteria Across Jurisdictions

Figures show the number of CPs (out of the eight that responded) whose questionnaire responses treat each criterion as explicit, discretionary, or absent, respectively.

Sanctioning Criterion	Explicit (of 8 CPs)	Discretionary (of 8 CPs)	Absent (of 8 CPs)
1. Quantity / Volume of Discharge	5	2	1
2. Type / Harmfulness of Substance	6	2	0
3. Sensitivity of Area (ECA / MPA / Special Area)	3	2	3
4. Ship Characteristics (Type, GT, Profile)	2	4	2
5. Degree of Culpability (Intent / Negligence)	4	2	2
6. Recurrence of Offence	5	1	2
7. Environmental / Health Damage	4	3	1
8. Cooperation / Obstruction	3	2	3
9. Economic Benefit from Violation	1	3	4

PART D - Comparative Review of Other Regional Enforcement Frameworks

A comparative review of relevant practices developed under other regional frameworks addressing ship-source pollution enforcement and penalties, such as those established under the European Union (notably Ship Source Pollution Directive), HELCOM, Bonn Agreement, OSPAR/NSN was conducted, with a view to identifying elements that are legally robust, operationally feasible and potentially transferable to the Mediterranean context.

D.1. Introduction and Scope

The assessment of penalty criteria applied by eight Mediterranean and adjacent coastal States examined how each jurisdiction sets the type, quantum, and determining criteria for sanctions for MARPOL violations, drawing on national self-reporting.²⁶ This part looks outward instead of inward. It examines how four regional or sub-regional frameworks outside the Mediterranean, that is, the European Union's Ship-Source Pollution Directive regime, the Helsinki Commission (HELCOM), the Bonn Agreement, and the OSPAR Convention together with its subsidiary North Sea Network of Investigators and Prosecutors (NSN), approach the enforcement and penalisation of ship-source discharges, with a view to identifying elements that are legally robust, operationally feasible and potentially transferable to a Mediterranean context centred on the Barcelona Convention and REMPEC.

A caution runs through the whole review. None of the four frameworks examined is a direct analogue for the Mediterranean. The EU is a supranational legal order with direct effect, a common court and a single Community-wide harmonisation instrument; HELCOM and the Bonn Agreement are operational cooperation bodies that generate no penalties of their own; and OSPAR's own treaty text expressly stops at the Strait of Gibraltar.²⁷ What each nonetheless offers is a tested design for one piece of the enforcement chain, that is, detection, evidence-sharing, prosecutorial cooperation, or statutory penalty design that can be assessed on its own terms for transferability, independently of the institutional scaffolding in which it happens to sit.

D.2. The European Union: Directive 2005/35/EC as Amended

The EU's Ship-Source Pollution Directive was adopted in 2005 in the wake of the *Erika* and *Prestige* tanker disasters, on the recognition that “the leading cause of ship-source pollution is not always accidents but also intentional discharges.”²⁸ On 23 October 2007 the Court of Justice of the European Communities annulled Council Framework Decision 2005/667/JHA of 12 July 2005 to strengthen the criminal-law framework for the enforcement of the law against ship-source pollution, which had supplemented Directive 2005/35/EC with criminal-law measures.²⁹ This created a legislative gap which needed to be filled. Thus, the adoption of Directive 2009/123/EC was “to fill the legal vacuum following the judgment.”³⁰ Not all waste that is generated on ships must be delivered to ports. Some can be discharged into the sea. An illegal discharge is a discharge from a ship that does not meet the relevant IMO rules, that is the

²⁶ Assessment of General and Specific Criteria for Determining Penalties in Case of MARPOL Violations — Revised Assessment (Rev. 2), MARPOL project documentation, Sections 1–2.

²⁷ OSPAR Convention 1992 (text as amended), Article 1(a)(i), p. 6.

²⁸ European Parliamentary Research Service, “Revision of the Directive on Ship-source Pollution,” (M. Gullentops, Dec. 2024), p. 2.

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/753928/EPRS_BRI\(2023\)753928_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/753928/EPRS_BRI(2023)753928_EN.pdf)

²⁹ Directive 2009/123/EC of the European Parliament and of the Council of 21 October 2009, recital (2), <https://eur-lex.europa.eu/eli/dir/2009/123/oj/eng>.

³⁰ Ibid.

standards set in MARPOL.³¹ As amended, the Directive treats a ship-source illegal discharge as an infringement whenever committed “with intent, recklessly or with serious negligence,” and elevates it to a criminal offence only where it “result[s] in deterioration in the quality of water”; discharges falling short of that threshold are treated as “minor cases” unless repeated minor cases cumulatively deteriorate water quality, in which case they too become a criminal offence.³²

The Commission's own ex-post evaluation in 2022 (covering 2007–2021) found that the Directive successfully contributed to the incorporation of international rules on ship-source pollution into Member State law and improved the detection of pollution from ships.³³ In particular, the Directive served as the driving force behind the establishment of the CleanSeaNet service, an EU satellite-based oil spill monitoring and vessel detection system managed by the European Maritime Safety Agency (EMSA).³⁴

However, the evaluation identified several shortcomings: (1) the current scope of the Directive does not encompass all relevant polluting substances covered under the international regime, such as garbage or sewage discharges into the sea; (2) the exchange of information and/or expertise required to effectively detect, verify, and penalise ship-source pollution is inconsistent across EU Member States and is generally inadequate; (3) the deterrent effect of the penalties currently imposed for ship-source pollution is uneven across the EU; and (4) reporting by Member States remains incomplete, resulting in a lack of comprehensive information on ship-source pollution and the penalties imposed across the EU over time.³⁵

The resulting reform, finalised as Directive (EU) 2024/3101, extends coverage to MARPOL substances the original text omitted (sewage, garbage, packaged harmful substances, scrubber residues), raises the required verification rate for CleanSeaNet alerts from the Commission's proposed 10% to a negotiated 25%, and adds ship-source pollution to the offence list of the revised Environmental Crime Directive.³⁶ Tellingly, the Council insisted throughout the negotiation that the instrument remains framed around administrative penalties, “given the differing legal systems in the Member States.” Member States must transpose the revised rules by 6 July 2027.³⁷

D.3. Helsinki Commission (HELCOM)

Helsinki Commission (HELCOM)³⁸: Operational Cooperation Riding on EU Legal Harmonisation

³¹ Explanatory Memorandum, Proposal for a Directive of the European Parliament and of the Council amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties, including criminal penalties, for pollution offences. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0273>.

³² Ibid Art. 1(4)–(5), new Arts. 4, 5a(1)–(3), recital (9)– Under this Directive, illicit ship-source discharges of polluting substances should be regarded as a criminal offence as long as they have been committed with intent, recklessly or with serious negligence and result in deterioration in the quality of water. Less serious cases of illicit ship-source discharges of polluting substances that do not cause deterioration in the quality of water need not be regarded as criminal offences. Under this Directive such discharges should be referred to as minor cases.

³³ Ibid. 6

³⁴ Ibid.

³⁵ Ibid.

³⁶ Directive (EU) 2024/3101 of the European Parliament and of the Council, OJ L, 16.12.2024, <https://eur-lex.europa.eu/eli/dir/2024/3101/oj/eng>; EPRS Briefing PE 753.928, pp. 1, 4, 6. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/753928/EPRS_BRI\(2023\)753928_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/753928/EPRS_BRI(2023)753928_EN.pdf).

³⁷ Ibid, “Legislative process,” p. 6.

³⁸ Also known as the Baltic Marine Environment Protection Commission.

The Helsinki Convention, was signed in March 1974 by all the states bordering the Baltic Sea (Denmark, Germany, Sweden, Estonia, Finland, Latvia, Lithuania, Poland and Russia), with the aim of reducing pollution of the Baltic Sea area caused by discharges through rivers, estuaries, outfalls and pipelines, dumping and shipping operations as well as through airborne pollutants.³⁹ The Helsinki Convention was revised in 1992 to reflect geopolitical changes and emerging environmental challenges in the Baltic Sea region, expanding its membership to ten Contracting Parties: Denmark, Estonia, the European Union, Finland, Germany, Latvia, Lithuania, Poland, Russia, and Sweden. The revised Convention entered into force on 17 January 2000 following ratification by all Contracting Parties. It has since been amended as necessary to align with developments in international environmental and maritime law, with the most recent amendment entering into force on 1 July 2014.⁴⁰

The Convention currently has seven Annexes containing more detailed procedures, measures and regulations linked to specific ecological objectives, principles or obligations that are set out in the Convention.⁴¹

Annex VII of the Convention mandates how countries should respond to Baltic Sea pollution incidents. It requires States to maintain national and joint contingency plans, establishes specific response zones, and requires immediate reporting of spills. Crucially, it prioritizes mechanical cleanup over chemical dispersants and sets the rules for States to request and fund mutual assistance during emergencies.⁴² It is fundamentally an operational response instrument. It contains no provision addressing penalties or sanctions for illegal discharges, leaving that matter entirely to national law.

HELCOM Recommendation 19/16 supplies the investigative counterpart, addressing cooperation among Contracting Parties in investigating violations or suspected violations of discharge, dumping and incineration regulations.⁴³ Again, this Recommendation does not make provision for penalty levels. Detection runs through a coordinated aerial and satellite surveillance programme operating since the 1980s, under which “the spill should be sampled from both the sea surface and on board the suspected offender to enable prosecution” and “the identity of a polluter should be established” wherever possible.⁴⁴

A third HELCOM instrument speaks directly to fines as penalty rather than to detection or investigation and is the HELCOM instrument most directly comparable to the subject of this assessment. Recommendation 19/14, “A Harmonized System of Fines in Case a Ship Violates Anti-Pollution Regulations,” adopted on 26 March 1998, has a core focus of establishing a unified system of financial penalties across Baltic Sea States for ships violating anti-pollution regulations. The key mechanisms used to achieve this is administrative fines, which focus on

³⁹ EUR-Lex, Summaries of EU Legislation, Helsinki Convention on the protection of the Baltic Sea, <https://eur-lex.europa.eu/EN/legal-content/summary/helsinki-convention-on-the-protection-of-the-baltic-sea.html>.

⁴⁰ The Helsinki Convention, <https://helcom.fi/about-us/convention/>.

⁴¹ Ibid.

⁴² Response to Pollution Incidents, Annex VII. It also includes that the Contracting Parties agree to apply, as far as practicable, the principles and rules included in the HELCOM Manual on Co-operation in Response to Marine Pollution, detailing this Annex and adopted by the Commission or by the Group designated by the Commission for this purpose in Regulation 11 of the Annex. <https://helcom.fi/about-us/convention/annexes-to-the-convention-2/annex-vii/>.

⁴³ HELCOM Recommendation 19/16, Co-Operation in Investigating Violations or Suspected Violations of Discharge and Related Regulations for Ships, Dumping and Incineration**) Regulations, <https://helcom.fi/wpcontent/uploads/2019/06/Rec-19-16.pdf>.

⁴⁴ Decreasing trend in detected oil spills in the Baltic Sea continues, Aerial surveillance and response to spills in the Baltic Sea, <https://helcom.fi/decreasing-trend-in-detected-oil-spills-in-the-baltic-sea-continues/>.

standardizing non-criminal, administrative penalties, which carry a lower burden of proof than criminal cases and allow for faster enforcement; and corporate liability, which enables States to fine legal entities (shipowners and operators) rather than just individual crew members, applying much heavier fines to corporations to ensure a real economic deterrent.⁴⁵

Its equal and escalating penalties provisions mandate that fines must be applied equally regardless of a ship's flag country and include mandatory penalty multipliers for repeat offenders.⁴⁶ Additionally, it provides for financial standardization by using Special Drawing Rights (SDRs)⁴⁷ as a universal baseline currency to ensure fines remain equal and unaffected by local currency fluctuations.⁴⁸

By harmonizing fines across all Baltic nations, Recommendation 19/14 closed legal loopholes that previously allowed polluters to exploit weaker national penalty systems, creating a blueprint for regional maritime enforcement worldwide.

Two features distinguish Recommendation 19/14 from every other instrument reviewed in this report. Firstly, it is the one regional device examined that attempts to harmonise penalty quantum directly, rather than confining itself to detection, evidence-sharing or prosecutorial best practice, an approach closer in spirit to the present draft Study's own recommendation for a common, SDR-denominated regional fine formula. Secondly, like all HELCOM recommendations, it has no binding force on Contracting Parties, so its harmonising effect depends entirely on voluntary domestic implementation, reported through HELCOM's Baltic Strategy reporting format.⁴⁹

What distinguishes HELCOM from the North Sea bodies is that it almost entirely lacks autonomous enforcement powers and relies on those of its EU Member States. With the exclusion of Russia, all of HELCOM's Contracting Parties are EU Member States (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden, alongside the EU itself) and so are directly bound by the Ship-Source Pollution Directive regime described above.⁵⁰ Russia's participation, meanwhile, has been, under what Baltic coastal States describe, a “strategic pause” since 2022, and it has been excluded from ministerial meetings even though it retains formal contracting-party status.⁵¹ Consequently, HELCOM's 2021 Baltic Sea Action Plan does not need to build its own penalty-harmonisation design because the EU has, in effect, already done so for the overwhelming majority of the sea's coastal States. This is the central limit on

⁴⁵ Criteria for a Common Minimum Level of Fines in Case a Ship Violates Anti-Pollution Regulations, 1(3), HELCOM Recommendation 19/16, <https://helcom.fi/wp-content/uploads/2019/06/Rec-19-14.pdf>.

⁴⁶ Ibid 1(4).

⁴⁷ The Convention urges Contracting Parties to apply a common minimum level of fines across seven categories of MARPOL/Helsinki Convention violation, i.e. illegal discharge of oil (1,500 SDR) and noxious liquid substances (1,500 SDR), garbage (150 SDR) and sewage (100 SDR), unauthorised incineration (50 SDR), and Oil/Cargo Record Book deficiencies (150–500 SDR).

⁴⁸ Section II of the Regulations states the criteria which should be followed by in those cases where, under national legislation, offences against MARPOL and the Helsinki Convention may be subject to administrative fines.

⁴⁹ The Recital section of the Recommendation reads: “[The Commission] RECOMMENDS that the Governments of the Contracting Parties to the Helsinki Convention apply the attached criteria for a common minimum level of fines in case a ship violates anti-pollution regulations,” and “[The Commission] REQUESTS the Governments of the Contracting Parties to report on the implementation of this Recommendation in accordance with the reporting format of the Baltic Strategy for Port Reception Facilities for Ship-generated Wastes and Associated Issues.”

⁵⁰ Directive (EU) 2024/3101 of the European Parliament and of the Council.

⁵¹ FAQ: HELCOM and the “strategic pause” – what has been going on? <https://helcom.fi/faq-helcom-and-the-strategic-pause-what-has-been-going-on/>.

HELCOM's transferability. It functions positively because it is not really a standalone penalty framework at all. The Mediterranean has no equivalent structural advantage because of the eight States in the accompanying assessment, only three of them (whose responses are being reviewed) are EU member States bound by the Directive. This in turn leaves a substantially larger, more legally diverse non-EU share of the region to contend with.

D.4. The Bonn Agreement

Across the national chapters of the Bonn Agreement Counter Pollution Manual, the Agreement is treated exclusively as a channel for detection, notification and mutual response assistance, and not as an enforcement instrument. Germany's implementing authority states that policing is not part of its mandate.⁵² Denmark's chapter explains why detection is still the motivating deterrence even though the Agreement itself imposes this. It states that its surveillance task exists “to guarantee a deterrent effect... through proper surveillance, enforcement and securing evidence,” with oil sampling designed specifically “to procure positive evidence in order to commence legal proceedings” under Denmark's own law, which since 2000 has empowered its Armed Forces to issue administrative fines for illegal discharges directly.⁵³

That “no policing” position needs qualifying, however, once the Agreement's own public description of its work is considered. The Bonn Agreement's official guidance states that its framework includes “the North Sea Manual on Maritime Oil Pollution Offences, which deals with the detection of maritime oil pollution offences, the collection of evidence and the imposition of penalties.” This clearly shows that the Agreement has a direct role in imposing penalties, not merely detection and notification as it may seem at a glance.⁵⁴ The Manual itself, published in 2010 and maintained as “a living document,” is jointly developed and updated by the Bonn Agreement together with the North Sea Network of Investigators and Prosecutors (NSN).⁵⁵ The Manual's stated aim is to provide an internationally agreed statement of the significance of maritime oil-pollution offences and of good practice in assembling, presenting and evaluating evidence,⁵⁶ and its chapter on national law (Chapter 4) compiles each North Sea State's existing penalty structure fines, imprisonment ranges, those liable as a comparative reference rather than proposing a common one.⁵⁷ The Manual, in other words, supports the imposition of penalties procedurally and evidentially, and documents it comparatively, without itself setting penalty levels or sentencing criteria.

D.5. OSPAR

OSPAR started in 1972 with the Oslo Convention against dumping and was broadened to cover land-based sources of marine pollution and the offshore industry by the Paris Convention of

⁵²Bonn Agreement Counter Pollution Manual, Vol. 1, Part A-National Chapters, Ch. 5 (Germany), p. 26.

https://www.bonnagreement.org/site/assets/files/25745/1_1-1_11_national_chapters-1.pdf.

⁵³Ibid., Ch. 2 (Denmark), p. 10.

⁵⁴Bonn Agreement, “How the Bonn Agreement Works,” <https://www.bonnagreement.org/about/how-the-bonn-agreement-works>.

⁵⁵ North Sea Manual on Maritime Oil Pollution Offences (2010), p. 4: “This manual was jointly developed by the North Sea Network of Investigators and Prosecutors (NSN)... and the Agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances, 1983 (Bonn Agreement)”;

“continuously updated and further developed by NSN and the Bonn Agreement.” https://www.bonnagreement.org/site/assets/files/1081/north_sea_manual_on_maritime_oil_pollution_offences-1.pdf.

⁵⁶ Ibid. p.2, The Manual is also addressed to those involved in the processes of bringing offenders to justice - prosecutors, defence lawyers and magistrates and judges. For them, it is intended to provide an internationally agreed statement of the significance of maritime oil-pollution offences and of good practice in assembling, presenting and evaluating evidence on such offences.

⁵⁷Ibid. North Sea Manual on Maritime Oil Pollution Offences (2010), Ch. 4 (“National Law”), e.g. Belgium, Denmark.

1974. These two conventions were unified, updated and extended by the 1992 OSPAR Convention and it is the mechanism by which 15 Governments and the European Union cooperate to protect the marine environment of the North-East Atlantic.⁵⁸ OSPAR's own compliance mechanism is Reports by States and Review by the Commission. In relation to the later, Contracting Parties must submit regular reports to the Commission on the measures they have taken to implement the Convention, the effectiveness of those measures, and any challenges encountered during implementation.⁵⁹ The OSPAR itself does not punish. Its recommendations “have no binding force”; even binding “decisions” are State-to-State regulatory obligations, not penalties directed at individual polluters or vessels; and its sole dispute-settlement mechanism is inter-State arbitration, with no provision anywhere for vessel- or individual-level penalty proceedings.⁶⁰ When read alongside the Bonn Agreement and the North Sea Network (see below), this confirms a consistent regional pattern where none of the North Sea/North-East Atlantic instruments reviewed set penalties directly. Each instead builds detection, cooperation, or depends entirely on national or supranational penalty law for enforcement.

OSPAR is also the one instrument in this review with no possible direct jurisdictional reach into the Mediterranean. Its own definition of the “maritime area” it covers runs “north of 36° north latitude” and explicitly excludes “the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° north latitude and the meridian of 5°36' west longitude” in practical terms, the Strait of Gibraltar.⁶¹ Any transferability from OSPAR or NSN to the Mediterranean is therefore necessarily by institutional analogy, not by extension of treaty coverage. Therefore, what is being borrowed is a governance design.

D.6. The North Sea Network (NSN)

The NSN is a subsidiary body of OSPAR comprising representatives of all Contracting Parties and OSPAR Observer organisations. Its function is to help enforcement and prosecution of MARPOL pollution offences aiming to prevent and minimize pollution from ships and installations in the Greater North Sea and its Approaches.⁶² In 2002, it was established by Ministers at the Fifth North Sea Conference to fulfil their commitment to “greater co-operation between North Sea States and at the European Union level to enforce internationally agreed rules and standards for the prevention, control and reduction of pollution from ships ... to increase detection of illegal discharges and ... improve the investigation and prosecution of offenders.”⁶³ Its mandate gives it four concrete tools, none of which touches substantive penalty law, namely maintaining and updating the North Sea Manual on Pollution Offences – a practical guide to detection, evidence collection and the imposition of penalties across differing national procedures; maintaining a restricted-access enforcement-case database recording “sanctions imposed and the penalty finally awarded,” explicitly intended to “facilitate a more uniform approach to prosecutions and penalties”; convening at least one annual meeting of investigators and prosecutors; and liaising formally with EMSA, Europol/Eurojust, Interpol and the IMO.⁶⁴

⁵⁸ About OSPAR <https://www.ospar.org/about>.

⁵⁹ OSPAR Convention 1992, Articles 23, <https://www.ospar.org/convention/text>.

⁶⁰ Ibid., Article 13(5), and Article 32 and also COUNCIL DECISION on the position to be taken on behalf of the European Union in the Convention for the Protection of the Marine Environment of the North-East Atlantic on amendments to the Decision on delineation and the Recommendation on the management of the North Atlantic Current and Evlanov Sea basin Marine Protected Area (NACES MPA), where it affirms the non-binding nature of its Recommendations, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023PC0236>.

⁶¹ OSPAR Convention 1992, Article 1(a)(i)(2).

⁶² Terms of Reference for the North Sea Network of Investigators and Prosecutors, Section 1, https://www.ospar.org/site/assets/files/48511/annex10_nsn_tor.pdf.

⁶³ Ibid., Section 2.

⁶⁴ Ibid., Section 3(a)–(e); p. 2.

The first chair of NSN, Captain Jeremy Smart (2002-2013), noted precisely the underlying rationale to effective cross-border cooperation when he stated that: “From the outset it became apparent that different countries had very different systems of investigating, prosecuting and publicising offences. Pollution transcends boundaries and in order to ensure effective international cooperation an understanding of the different legal systems is essential”.⁶⁵ This is a harmonisation model built on shared operational knowledge and comparative case data rather than on a supranational legislative instrument, and it is the single most directly transferable element identified in this draft Study. The reason is that it already has a documented Mediterranean counterpart. NSN's own 2022 Terms of Reference record that the Mediterranean Network of Law Enforcement Officials relating to MARPOL within the framework of the Barcelona Convention (MENELAS) already participates in NSN's annual meetings.⁶⁶ The institutional bridge to the Mediterranean that might otherwise have to be proposed from first principles therefore already exists as a starting point. The focus then would not be whether such a network should be created, but rather how MENELAS's mandate, resourcing and outputs should be strengthened to match it.

D.7. Comparative Assessment: Legal Robustness, Operational Feasibility and Transferability

Three patterns recur across all four frameworks and are worth stating before turning to recommendations.

Dimension	EU (Directive 2005/35/EC as amended)	HELCOM	Bonn Agreement / OSPAR-NSN
Penalty-setting power	Yes - binding statutory floor (“effective, proportionate, dissuasive”; criminal for natural persons)	Convention itself silent; but Rec. 19/14 (1998) sets a non-binding, SDR-denominated minimum-fine schedule by violation type	Neither body sets penalty levels, but their jointly-owned Manual explicitly supports “the imposition of penalties” through standardised evidence and a comparative compilation of national penalty law
Detection / surveillance layer	EMSA CleanSeaNet (satellite); alert-verification rate raised to 25% in 2024 revision	Coordinated aerial/satellite surveillance since the 1980s; dual on-board/sea-surface sampling	National aerial assets + CleanSeaNet; POLREP notification chain

⁶⁵ North Sea Network factsheet, NSN14/FS01 (2014), p. 1.

https://www.ospar.org/site/assets/files/1237/ospar_factsheet_nsn_2014-1.pdf.

⁶⁶ Terms of Reference for the North Sea Network..., Section 9, NSN maintains appropriate interaction with other international organisations, when instrumental for the fulfilment of these Terms of Reference. In particular, the Network of Prosecutors on Environmental Crime in the Baltic Sea Region (ENPRO) and the Mediterranean Network of Law Enforcement Officials relating to MARPOL within the framework of the Barcelona Convention (MENELAS) contribute to the work of NSN by participating in the annual meetings. In addition, NSN collaborates regularly with the International Maritime Organisation (IMO) and the International Crime Police Organization (Interpol).

Dimension	EU (Directive 2005/35/EC as amended)	HELCOM	Bonn Agreement / OSPAR–NSN
Harmonisation mechanism	Community legislation; CJEU oversight	None of its own - relies on EU Directive for 8 of 9 Contracting Parties	Soft: North Sea Manual on Maritime Oil Pollution Offences (jointly owned by Bonn Agreement and NSN), enforcement-case database, annual prosecutors' forum (NSN)
Institutional home	European Union (ordinary legislative procedure)	Helsinki Commission (independent regional convention)	Bonn Agreement (1983) and NSN (OSPAR subsidiary body) jointly maintain the Manual; NSN's other tools sit with OSPAR alone
Reach beyond EU membership	N/A - EU law only	Formally regionwide, but Russia's participation has been under a “strategic pause” since 2022	Bonn Agreement parties include non-EU Norway; NSN membership follows OSPAR party list
Documented Mediterranean linkage	Directive already binds the EU-member States among the eight surveyed (Greece, Malta, Spain, and Italy if Country I)	None identified	NSN Terms of Reference record MENELAS (Barcelona Convention) participation in NSN annual meetings

First, legal robustness and operational feasibility pull in different directions, and each framework reviewed has resolved that tension differently. The EU's Directive is the most legally robust instrument examined as a judicially reviewable, Community-wide statutory floor. Yet its own 2023 evaluation found administrative penalty floors low enough in places to fail the Directive's own “dissuasive” test, and the Council's insistence during the 2023–2024 revision that the instrument remains administrative-penalty-focused “given the differing legal systems in the Member States” shows that formal harmonisation obligations do not, by themselves, deliver operational convergence.⁶⁷ The NSN/Bonn Agreement model is the operational mirror image: it delivers documented convergence in prosecutorial practice, a shared database, a jointly-owned manual, an annual forum precisely because it makes no claim to harmonise substantive law at all.

Second, detection infrastructure is doing more of the enforcement work than penalty statutes are. In every framework reviewed, the practical trigger for a prosecution is a CleanSeaNet satellite detection or an aerial-surveillance sighting, sampled and identified under a POLREP-type or HELCOM Recommendation 19/16-type procedure, before ever reaching a national

⁶⁷ Ibid. “Legislative process,” p. 6.

authority. The quality of that detection-and-evidence layer, more than the wording of the penalty clause, is what most directly determines whether a violation is prosecuted at all.

Third, external international law sets a ceiling that no regional design choice can override. UNCLOS Article 230 constrains custodial penalties for foreign seafarers in the territorial sea regardless of whether the enforcing body is the EU, HELCOM, a Barcelona Convention mechanism, or a purely domestic court; any Mediterranean reform that leans toward criminalisation as several of the eight surveyed States already do needs to be built around that ceiling from the outset, rather than discovering it later, as the EU's own industry stakeholders currently argue has happened with the revised Environmental Crime Directive.

D.8. Elements Transferable to the Mediterranean Context

Building on the foregoing, five elements combine legal robustness, operational feasibility and a realistic transfer path.

a. **A strengthened MENELAS, modelled on the Bonn Agreement/NSN Manual**

Because a Mediterranean prosecutors'-and-investigators' network already exists and already has a documented working relationship with NSN, the lowest-friction transferable element is not a new institution but a better-resourced existing one: a MENELAS-held enforcement-case database recording sanctions and penalties actually imposed, as per the NSN model, and a Mediterranean equivalent of the jointly-owned North Sea Manual on Maritime Oil Pollution Offences addressing cross-border evidence admissibility among the region's mixed civil-law, common-law and hybrid jurisdictions. The parallel is closer than it first appears; the Manual's own Chapter 4 already performs for the North Sea States exactly what the comparative compilation of national penalty law that this assessment performs for the eight Mediterranean States reviewed above. Hence, a Mediterranean manual could extend that same structure regionwide rather than being built from a blank page. This directly complements, rather than duplicates, the regional MARPOL-violator database already recommended in this assessment.

b. **A shared, EMSA-style detection layer extended to non-EU littoral States**

CleanSeaNet's Mediterranean coverage is already partial by virtue of EU membership among the States surveyed; REMPEC, EMSA and the Barcelona Convention Secretariat are the natural parties to formalise wider satellite-detection sharing with non-EU States such as Morocco, Egypt, Libya and Türkiye. The technology and the entity already operating it exist and require no new regional legislation to extend.

c. **A statutory “effective, proportionate and dissuasive” floor or a HELCOM-style non-binding schedule as the faster near-term device**

The EU's own experience, that is, a directly-drafted, judicially-enforceable statutory standard still producing very low penalty floors in places cautions against assuming a qualitative standard alone to converge penalty quantum. HELCOM's Recommendation 19/14 offers a lighter-weight alternative worth transferring ahead of the EU model, that is, a non-binding, SDR-denominated schedule of minimum fines by violation category, adoptable by simple recommendation rather than treaty amendment, and requiring neither a criminal-law competence nor a supranational court which is a natural fit for a REMPEC or Barcelona Convention instrument. The Recommendation's own history is also a caution. Even a modest, voluntary schedule of this kind apparently needed revisiting within twenty years to keep pace with currency drift, and on the evidence available for this review the revision has not been finalised, underscoring that any Mediterranean equivalent should build on a standing review mechanism from the outset. Either device, EU-style statutory floor or HELCOM-style

recommended schedule, should in any case be paired with the quantified, criteria-based approach already emerging organically in the region: Türkiye's gross-tonnage-indexed formula, Morocco's mandatory doubling on recidivism, and Spain's named economic-benefit criterion are all existing regional precedents to build outward from, rather than importing external model's language in isolation.

d. UNCLOS Article 230-compliant custodial-penalty design

Since roughly half the region's States already impose custodial sentences for MARPOL violations, and because the EU's own current legislative package remains contested on exactly this point, any Mediterranean harmonisation instrument should state expressly that imprisonment of foreign seafarers is reserved for territorial-sea discharges that are both wilful and serious, consistent with UNCLOS Article 230, rather than importing a broader negligence trigger that risks capturing accidental pollution.

e. A cost-recovery track kept separate from the penalty track

The Bonn Agreement States' near-uniform reliance on the EU States Claims Management Guidelines for polluter-funded cost recovery is a template the Mediterranean could adopt independently of, and considerably faster than any harmonised criminal or administrative penalty law. It requires no criminalisation debate, no UNCLOS adjustment, and addresses a distinct problem, that is, who pays for clean-up. The latter differs from the one the accompanying assessment addresses, namely how offenders are sanctioned.

D.9. Conclusion

No single framework reviewed offers a ready-made template for the Mediterranean. The EU's Directive is the most legally robust but depends on institutional machinery, i.e., a common court, direct effect, an ordinary legislative procedure, that the Barcelona Convention system does not have and is unlikely in the near future to acquire. HELCOM's enforcement teeth rest substantially on borrowed EU law, but its Recommendation 19/14 shows the Baltic region also produced a device of its own non-binding, SDR-denominated minimum-fine schedule, which is a prototype well suited to Mediterranean adoption precisely because it needs no treaty amendment, though its own thirty-year-old figures and unconfirmed revision history are a caution about maintaining any such schedule over time. The Bonn Agreement and OSPAR confirm consistently that operational cooperation on detection and evidence, not treaty-level penalty-setting, is where regional bodies add the most value. This is so, although the Bonn Agreement's jointly-owned North Sea Manual on Maritime Oil Pollution Offences, short of setting penalty levels itself, shows that “operational cooperation” can extend to standardised evidentiary support for penalty imposition and comparative compilation of national penalty law.

NSN demonstrates that the States' choice to prosecute can be pursued successfully without touching substantive law at all. The most promising path for the Mediterranean, on this evidence, is not to replicate any one instrument wholesale but to combine the pieces that travel well on their own terms: a strengthened MENELAS built on the Bonn Agreement/NSN Manual model, wider satellite-detection sharing through REMPEC and EMSA, a quantified statutory or recommendation-based penalty floor grounded on criteria the region's own States are already applying, explicit UNCLOS Article 230 calibration, and a cost-recovery track kept administratively distinct from the sanctioning question examined in the accompanying assessment.

PART E - Options for Minimum Criteria and Minimum Levels of Fines

Options for minimum criteria and minimum levels of fines: based on the above analysis, a legally sound and operationally feasible recommendations that enhance consistency and legal certainty at regional level, strengthening deterrence, while respecting national sovereignty and the autonomy of penalty systems have been developed. The options cover:

- **common minimum criteria for deterring penalties**
- **possible minimum levels of fines per category of offence**

E.1. Proposed Applicability of Minimum Fines for Contracting Parties

In order to achieve uniformity in enforcement, MARPOL depends on States Parties to cooperate by imposing the same or similar fines within their respective jurisdictions. It is thus proposed that CPs may wish to consider to:

1. Adopt criteria for a common minimum level of fines for each offense provided for under the Annexes to MARPOL.
2. Apply those criteria for a common minimum level of fines for each offense provided for under the Annexes to MARPOL.
3. Address in the harmonised system of fines offences against the regulations of MARPOL which are subject to administrative fines.
4. As far as possible within the framework of their legal systems, aim at adopting legislation which allows fines to be imposed on a legal person (shipowner/operator of a ship), taking into consideration the financial capacity of the legal or natural person liable when determining the level of the fine imposed.
5. Make no difference in the level of fines imposed on nationals of the Contracting Parties and foreigners.
6. Impose a higher fine compared to the previous cases on repeat offenders.
7. Adopt the SDR as a uniform “Unit of account” which will stand as the common monetary unit of measurement used under MARPOL.
8. Having regard to the established Exclusive Economic Zones of the CPs and the national jurisdiction related thereto, make the criteria applicable to all ships to which MARPOL applies when violating its regulations.

E.2. Criteria for the Adoption of Minimum Fines

In order to create a unified standard for penalties, nine key sanctioning criteria can be derived from MARPOL as follows:

1. **Quantity or estimated quantity of pollutants discharged:**

The most common and convenient quantity criterion, being the gross tonnage, has been applied differently by respective CPs. Based on the responses received, it is observed that gross tonnage has been interpreted by States Parties to be:

- a. **By volume proxy** wherein the actual amount of pollutant discharged is measured and the penalty charged is based on the quantity actually discharged;
- b. **By threshold escalation** where the measure is based on the size of the vessel with an underlying rationale that larger vessels have a probability of discharging more than smaller vessels. The penalty is thus based on probability in each circumstance; and
- c. **Discretionary penalties** where fines are imposed more administratively per case irrespective of the discharged quantity.

2. **Type and harmfulness of the substance/pollutant**

MARPOL requires consideration of the nature of the pollutant, its toxicity, persistence, and bioaccumulation potential and how the discharge directly affects the environment and the public health consequences of a discharge. National legislation reflects this to varying degrees as follows:

- a. Explicit statutory differentiation: by listing the applicable pollutants in the statutes of the CPs, the clearest and most defined fines are provided for depending on the type of pollutant.
- b. Differentiation by type and level of pollution: this is a broader spectrum of differentiation where pollutants are generally divided into oil, noxious liquid substances and fines are based on the category the pollution falls under.
- c. Ceiling differentiation by Annex: this method simply prioritises oil pollution for the maximum imposed fines. All other pollutions are not particularly prioritised.
- d. Flat rates with counterintuitive ordering: this imposes flat fines on each pollutant discharge.

3. Sensitivity of the affected area (Special Areas under MARPOL, ECAs, MPAs, etc.)

As aforementioned, MARPOL establishes Special Areas and PSSAs, and IMO has designated ECAs under Annex VI. Discharges in such areas warrant heightened deterrence given the ecological vulnerability and the international recognition of those waters. National legislation reflects this to varying degrees as follows:

- a. Geographic awareness as against distance from nearest land as a metric.
- b. Case-by-case basis, which may in practice take location into account, but no statute mandates this.
- c. Enforcement based on waters of high ecological sensitivity.

The above listed legislation do not explicitly reflect a penalty scale.

4. Ship characteristics (type, gross tonnage, operational profile)

The Ship type and size are among the most widely used explicit variables for imposing fines. The various interpretations are as follows:

- a. GT-indexed formula: by distinguishing tankers from non-tanker vessels at different base rates per GT, a stepped scale applies with fine amounts stepping up at each band. This structure ensures fines are proportionally higher for large vessels without requiring discretionary assessment in individual cases.
- b. GT thresholds as the primary sentencing determinant: the explicit GT thresholds drives sentencing brackets - vessel type (tanker vs. non-tanker) and size class together determine the applicable bracket.
- c. No explicit GT or vessel-type scaling: fines are not explicitly adjusted by vessel GT or type in legislative texts, relying on judicial or administrative discretion.

5. Degree of culpability or fault of the responsible subject (intent, negligence, recklessness)

This is the mental element of the offence and relates to whether a discharge was intentional, reckless, or merely negligent. It is fundamental to any principled sanctioning system. It determines whether criminal or administrative sanctions are appropriate and whether custodial sentences should be considered. The various applications are as follows:

- a. Culpability spectrum: judicial case-by-case determination allows courts to weigh the subjective element directly.
- b. Recidivism triggering mandatory cumulative sanctions: this implicitly introduces a culpability dimension - repeated violation demonstrates conscious disregard for legal obligations.

- c. Criminal default assumption for large vessels: large-vessel discharges imply intentional or reckless conduct as the legislative default assumption, as such severe penalties would not typically be imposed for purely negligent acts under most legal traditions.
- d. Strict-liability administrative model: no explicit statutory distinction between intentional and negligent discharges. Administrative systems inherently treat violations as strict-liability offences. This formula makes no reference to intent or fault whatsoever.

6. Recurrence of offence

Repeat violations signal systemic non-compliance - either by an operator unwilling to invest in pollution prevention equipment, or a management culture indifferent to regulatory requirements. The deterrent function of sanctions depends in part on their ability to escalate upon recurrence. The varying interpretations are as follows:

- a. Quantified statutory recurrence escalator: this is a system that escalates fines and other consequences for repeated offenders. Judicial discretion within the wide fine range may also be applied.
- b. Mandatory cumulative sanctions on recidivism: this converts the fine or imprisonment alternative into a cumulative sanction upon recidivism, making imprisonment mandatory in addition to any fine. This is a meaningful and clear escalation mechanism.
- c. No statutory recurrence escalator: Fixed administrative fines and formula-based calculations do not inherently adapt to prior offence history. Fines may be imposed on a daily basis as a recurrence-equivalent for ongoing violations, but statute does not address distinct repeat violations.

7. Damage caused by an illegal discharge to the environment or human health

Actual harm to the marine environment or human health as distinct from the risk of harm created by the discharge distinguishes consequentialist from purely rule-based approaches to sanctioning. The varying interpretations are as follows:

- a. Explicitly ruling out a damage requirement: it does not require proof of 'environmental damage caused by the discharge' as a precondition for sanctioning. This is a deliberate rule-based approach: the discharge itself is unlawful regardless of demonstrated environmental impact.
- b. Remediation costs assessed separately from criminal fine: discharge fines in these cases will exclude other costs such as 'cleaning expenses,' implying remediation costs are assessed separately and are not embedded in the criminal penalty. This preserves the punitive character of the fine while allowing civil or administrative recovery of clean-up costs.
- c. Mandatory remediation order in all cases: this provides that in all cases the violator must remove the effects of the violation within a set deadline. It contains an implicit acknowledgement that remediation is a mandatory sanction component, though environmental damage is not expressly used as an aggravating factor in the fine calculation.
- d. No reference to damage assessment: in this case, there is no reference to environmental damage assessment as a penalty modifier. Calculations are purely mathematical (GT-based) and make no provision for ecological harm assessment.

8. Level of cooperation with authorities, or obstruction during inspection/investigation

This is consistent with the broader pattern: behaviours widely acknowledged as relevant in practice are not yet systematically embedded in legislative frameworks but has been applied implicitly as a mechanism in selected jurisdictions as follows:

- a. Conditional discharge (suspended sentences, financial undertakings) and community service as alternatives to fines and imprisonment may implicitly reward cooperation and admission of guilt, consistent with general criminal law principles of mitigation.
- b. Plea bargaining could incorporate cooperation as a mitigating factor at the sentencing stage.
- c. Vessel detention and prohibition from sailing as sanctions that could incentivise cooperation during ongoing inspections cooperation is generally structured as a formal penalty modifier.

9. Economic benefit generated or expected to be generated from the violation

A foundational principle of effective deterrence is that penalties must exceed the economic benefit of non-compliance. Ships may circumvent pollution prevention requirements to save costs on port reception facility fees, sludge disposal charges, or equipment maintenance. Where fines are lower than the savings achieved by illegal disposal, they function as a licence fee rather than a deterrent. Economic benefit or unjust enrichment are not explicitly incorporated as a statutory penalty criterion. This is the most uniform and consequential gap identified and is interpreted in various jurisdictions as follows:

- a. Structural proxies in selected jurisdictions: formula scales fines are broadly with vessel size, which correlates with the economic scale of vessel operations and potential savings from illegal discharge — but this is a structural proxy, not a tailored economic benefit assessment.
- b. Administrative: this entails a wide enough fine bracket in principle to accommodate an economic benefit calculation, but the legislation does not mandate such an assessment.
- c. Discretionary fines: these fines are within wide fine ranges and could in principle adjust fines upward to disgorge estimated economic benefit, but no statute requires this.

E.3. Conclusions and Recommendations

The comparative analysis reveals a pattern of partial and uneven implementation of the varying criteria across jurisdictions of CPs. The following recommendations are offered in order for minimum fines for violations of MARPOL provisions to be successfully better aligned:

1. Adopt a common base formula incorporating GT, Annex/pollutant type, and discharge quantity as non-waivable minimum determinative factors.
2. Introduce a mandatory area sensitivity multiplier (e.g. $\times 2$ or $\times 3$) for discharges occurring within MARPOL Special Areas, PSSAs, ECAs, and nationally or regionally designated MPAs.
3. Require that penalties always exceed the estimated economic benefit of the violation, with a standardised conservative methodology when estimating reception facility cost avoidance and related savings.
4. Establish a regional MARPOL violator database accessible to all port State control officers, enabling automatic escalation of fines for repeat offenders within a five-year look-back window.

5. Introduce statutory cooperation credits (e.g. up to 30% fine reduction for voluntary self-disclosure and full cooperation) and mandatory obstruction aggravators (e.g. minimum doubling of fines where bypass piping or ORB falsification is established).
6. Standardise all fines in SDR to deter currency fluctuation effects and facilitate regional comparability and mutual recognition of sanctions.

MARPOL is a pillar of shipping for the protection of the marine environment. Its continuous updates demonstrate how far the instrument has come in the fight against any introduction of pollutants in the marine environment and the efforts to combat the detrimental effects of climate change. The real value of the Convention remains however the compliance by States and all those engaged in shipping activities with its provision. To achieve compliance, States are required to implement the provisions of the Convention in national law and rigorously enforce them, without discrimination.

This draft Study aims to introduce guidance on how Mediterranean CPs can fully comply with its provisions, especially in terms of sanctions to be imposed in case of violations, particularly discharge of pollutants. It is hoped that the recommendations put forward will enhance the cooperation amongst the Mediterranean CPs and provide the basis for uniform application of MARPOL requirements.
