

The international regulatory framework for preventing pollution from ships

November 2025

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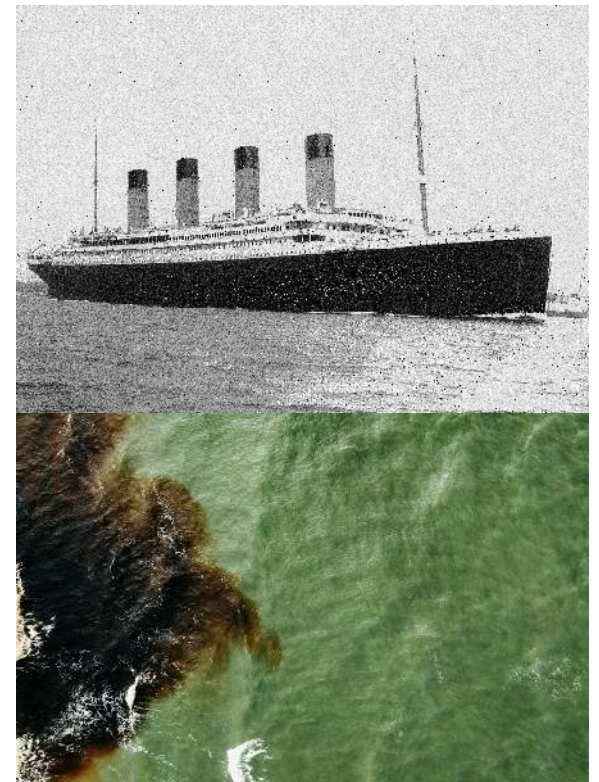
1. Introduction to IMO
2. Role and responsibility of Administrations
3. Brief overview of MARPOL Annexes
4. Introduction to IMO's Technical Cooperation

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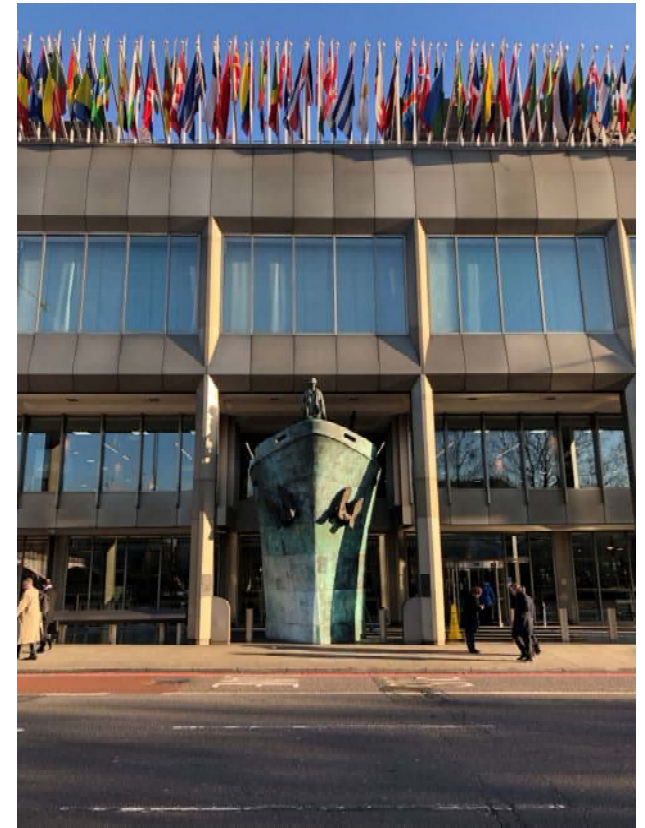
Setting the Scene – Why does the world need an organization like IMO?

- Shipping was a national or private affair
- Turning point – sinking of the **Titanic** in 1912
- Safety and responsibility had to be shared – through **international cooperation**
- Expanded – the **Torrey Canyon** oil spill in 1967
- Led to the creation of new conventions on **marine pollution prevention**

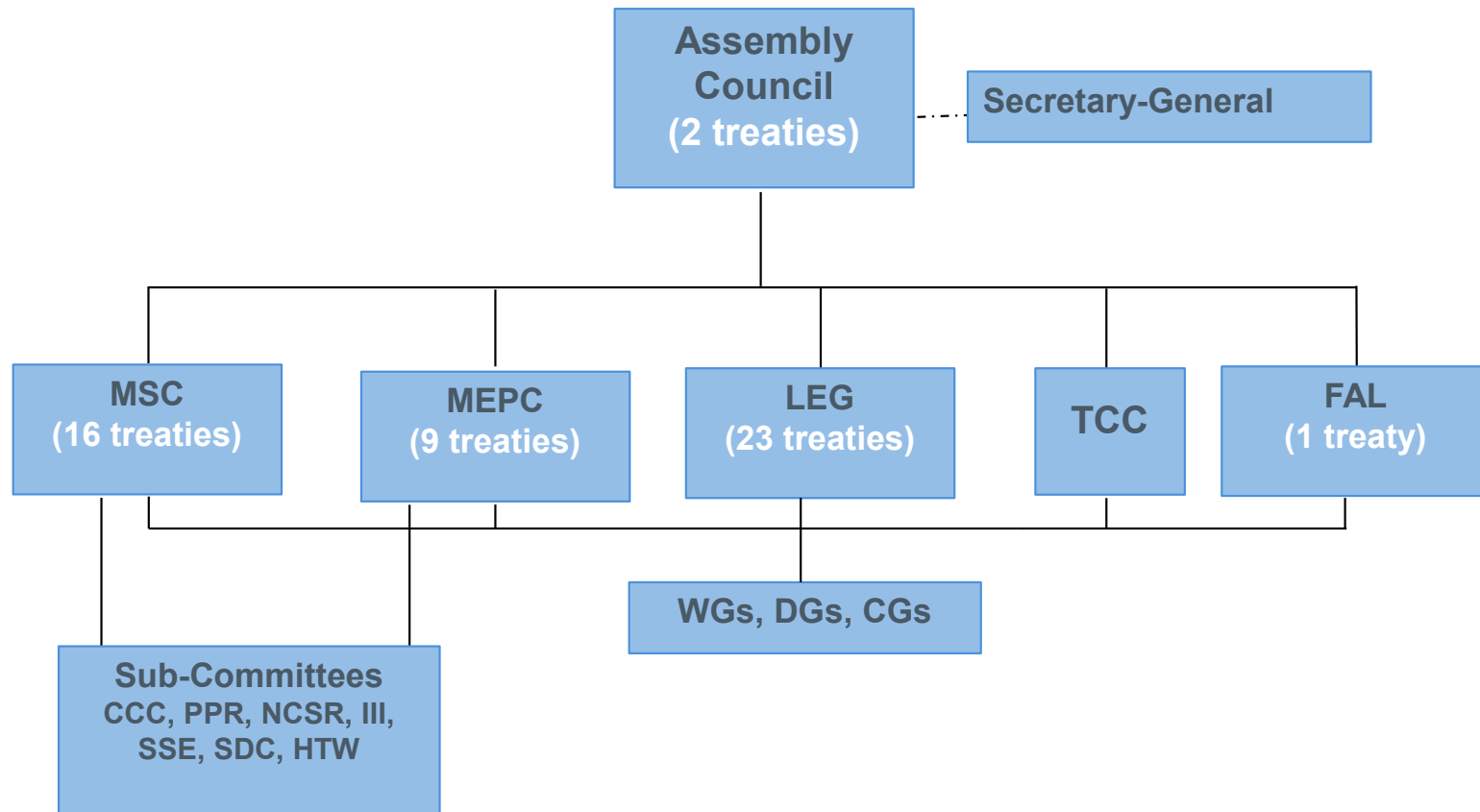


IMO at glance

- Specialized United Nations agency
 - **Headquarters** - United Kingdom since 1958
 - **7** regional offices
- Membership
 - **176** Member States plus 3 Associate Members
 - Over **150** observer organizations (IGOs and NGOs)
- Secretariat
 - over **300** staff, of around **50** nationalities
 - **6** official languages and **3** working languages



IMO composition



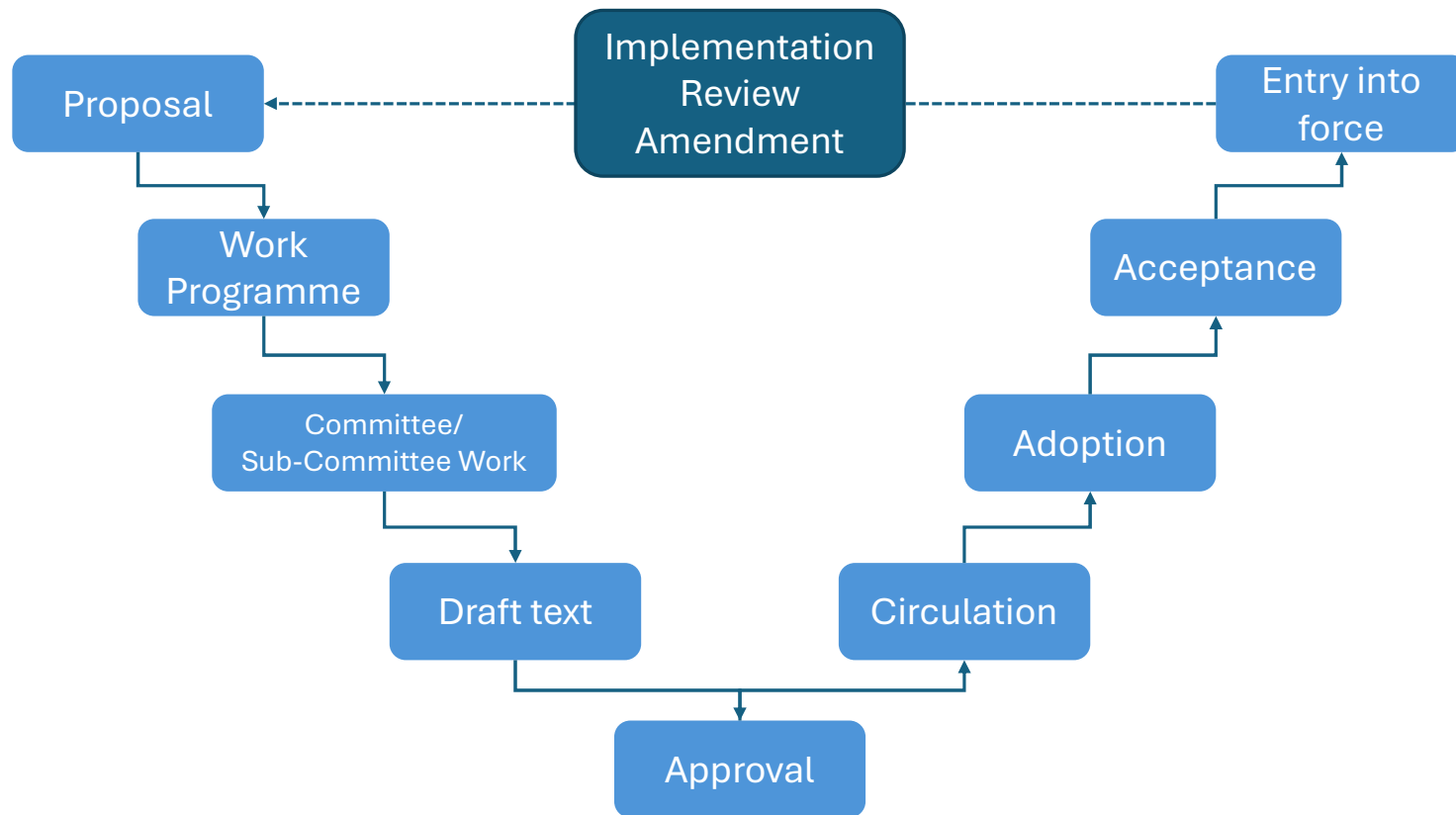
IMO structure - Assembly

- **Highest Governing Body** of IMO
- Consists of **all 176** Member States
- Meets once every two years in regular sessions
- Responsible for:
 - approving **work programme**
 - determining **financial arrangements**
- Elects the Council

IMO structure - Council

- **Executive Organ** of IMO
- Elected by Assembly for **two-year terms**
- Consists of **40** Member States
- Responsible, under the Assembly, for **supervising IMO's work**
- Other functions:
 - Coordinates activities of the IMO organs
 - Considers IMO draft work programme and budget estimates (submits to Assembly)
 - Receives reports/ proposals of Committees (submits to Assembly)
 - Appoints Secretary-General (subject to approval of Assembly)

The Treaty-making and regulatory process



Set-up



Welcomes participation of:

- Representatives from UN and its specialized agencies
- Observers from:
 - inter-governmental organizations
 - non-governmental organizations in consultative status

IMO's budget and the assessment on Member States

- IMO's budget is primarily funded by an **Assessment on Member States**:
- The assessment calculation has **three components**, established in Assembly resolution A.726(17):
 - A **minimum assessment** – 2.94% of the total assessment, divided amongst all Member States;
 - A **basic assessment** – 12.5% of the remaining assessment, based on the contribution scale for the United Nations;
 - A **tonnage assessment** – 87.5% of the remaining assessment, based on one unit for each 50,000GT;
- IMO operates on a biennial budget, approved by the Assembly

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Parties obligations

MARPOL, article 1(1)

“Parties shall undertake to **give effect to the provisions of the present Convention and those Annexes** thereto by which they are bound, in order to prevent the pollution of the marine environment by the discharge of harmful substances or effluents containing such substances in contravention of the Convention”

- need to implement **monitoring, compliance** and **enforcement mechanisms**
- Compliance should focus on **preventing pollution**
- Compliance measures depends upon the State jurisdiction
- Subject to mandatory **IMO audit**



Variety of compliance strategy

- Routine **flag inspections or surveys**, using inter alia:
 - *Survey guidelines under the Harmonized System of Survey and Classification (HSSC), 2023* (resolution A.1186(33))
 - *Code for Recognized Organizations (RO Code)* (resolution MEPC.237(65))
- **Port State inspections**, using:
 - *Procedures for Port State Control, 2023* (resolution A.1185(33))
- Detection and policing **patrols**
- **Reporting procedures** and self-reporting incentives
- Adequate **investigations** of violations reported or otherwise detected
- Adequate **sanctions** for violations
- **Education** and **public awareness** programmes
- **Cooperation and coordination** with other Parties (e.g. PSC MoU)

Non-Parties

MARPOL, article 5(4)

“With respect to the ship of non-Parties to the Convention, Parties shall apply the requirements of the present Convention as may be necessary to ensure that **no more favourable treatment** is given to such ships.”

- Non-Party: not accept the obligations to place restrictions upon its ships and, therefore, its ships cannot be prosecuted for failing to comply
- **Except** in territorial waters of a Party:
 - No more favourable treatment (“NMFT principle”)**: Parties may apply the provisions of the Conventions to Parties’ ships as well as non-Parties’ ships
- When the shore of a non-Party is polluted or its air quality is affected
 - => it has no privilege under MARPOL to insist upon prosecution of the ship concerned

Means of participation

- Accession and implementation require **broad participation**:
 - Government of the State, including Maritime/Transport/Environment Administration, Legal Administration, etc.
 - Specialized national technical agencies
 - Local authorities, if relevant
 - Port authorities
 - Shipowners
 - Possible public participation
- Each sector should know exactly what are its institutional rights and obligations, responsibilities, and the requirements to be imposed on ships and ports



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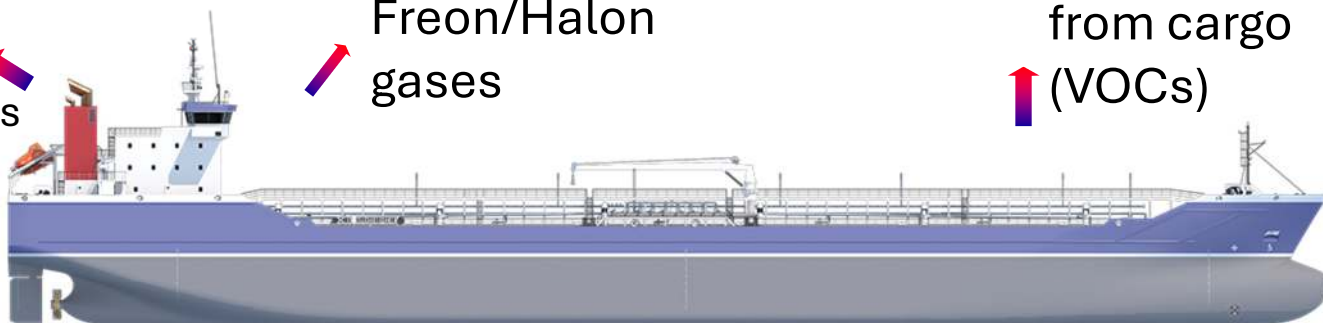
Sources of pollution from ships

Exhaust Gases (SO_x , NO_x , GHG, etc.) from:

- main and auxiliary engines
- boilers
- incinerators

Emissions of Freon/Halon gases

Evaporation from cargo (VOCs)



Sewage & Garbage

Oil spills

Loss of cargo

Loss by accidents – ship cargoes & life

Bilge-water disposal/tank washing

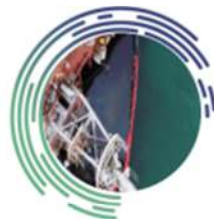
Emissions from paint solutions

Ballast water discharge

© Damen shipyards

How does IMO's marine protection treaty make a difference?

The International Convention for the Prevention of Pollution from Ships (MARPOL) contains six annexes:



OIL

ANNEX I

Prevention of Pollution by Oil
(entered into force 2 October 1983)



SEWAGE

ANNEX IV

Prevention of Pollution by
Sewage from Ships (entered into
force 27 September 2003)



NOXIOUS LIQUID SUBSTANCES

ANNEX II

Control of Pollution by Noxious
Liquid Substances in Bulk (entered
into force 2 October 1983)



GARBAGE

ANNEX V

Prevention of Pollution
by Garbage from Ships (entered
into force 31 December 1988)



HARMFUL SUBSTANCES

ANNEX III

Prevention of Pollution by Harmful
Substances Carried by Sea in
Packaged Form (entered into
force 1 July 1992)

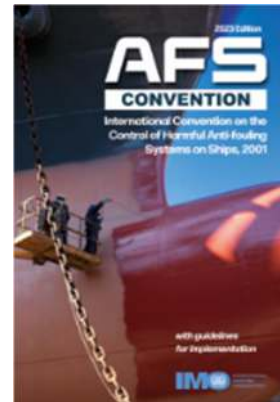


AIR

ANNEX VI

Prevention of Air Pollution from Ships
(entered into force 19 May 2005)

Other key conventions



MARPOL – technical annexes

Annex I – Regulations for the Prevention of Pollution by Oil

- Entered into force on **2 October 1983**
- Covers prevention of **pollution by oil** (operational + accidental)
- The 1992 amendments to Annex I made it mandatory for new oil tankers to have **double hulls**



Annex II - Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk

- Entered into force on **2 October 1983**
- Sets discharge criteria and measures for the control of **pollution by noxious liquid substances carried in bulk**
- Discharge of their residues is allowed only to **reception facilities**



MARPOL – technical annexes

Annex III – Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form

- Entered into force on **1 July 1992**
- Set rules for packing, labelling and storing of **harmful substances carried in packaged form**.



Annex IV - Prevention of Pollution by Sewage from Ships

- Entered into force on **27 September 2003**
- Discharge of sewage into the sea is prohibited (except with **sewage treatment plant** or when the ship is discharging comminuted and disinfected sewage)



MARPOL – technical annexes

Annex V – Prevention of Pollution by Garbage from Ships

- Entered into force on **31 December 1988**
- Deals with different types of **garbage**
- Complete ban imposed on the disposal into the sea of all forms of **plastics**.

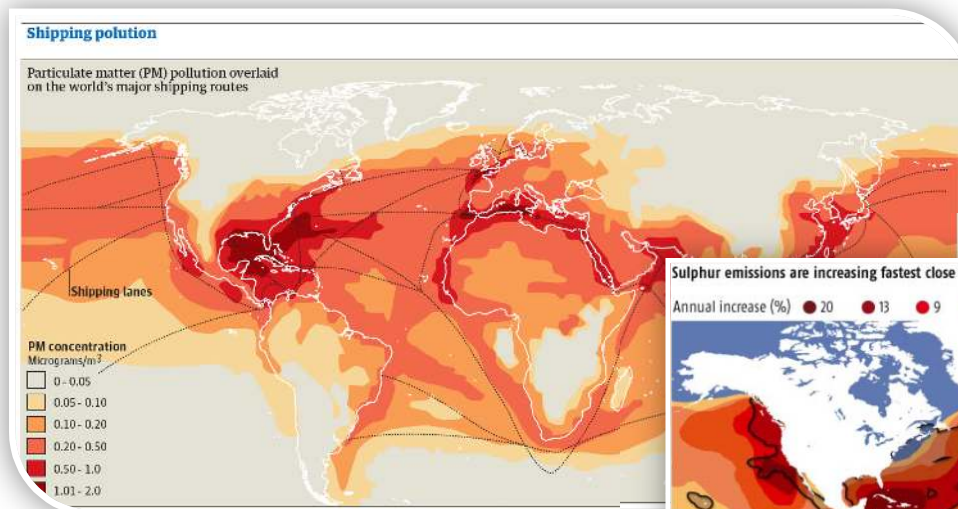


Annex VI – Prevention of Air Pollution from Ships

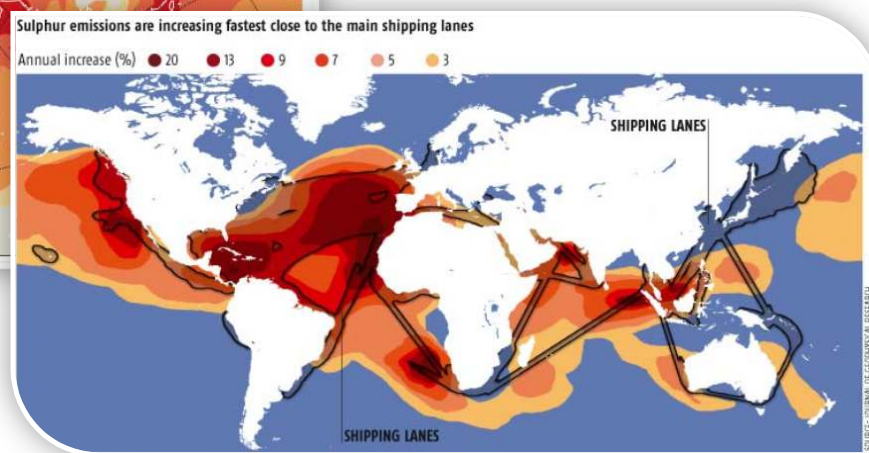
- Entered into force on **19 May 2005**
- Deals with broad range of **air pollution**, including:
 - Local air pollutants (SO_x , PM, NO_x)
 - Ozone Depleting Substances
 - Volatile Organic Compounds
- Technical and operational **energy efficiency** measures



MARPOL Annex VI - Why regulate shipping emissions?



- Impact on human health
- Impact on the environment (e.g. acid rain)
- Impact on the ozone layer
- Climate change



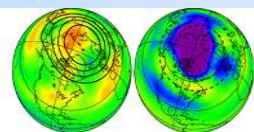
Annual average contribution of shipping to PM_{2.5} concentrations (micrograms/m³)

Concentration increases from ships range up to 2 µg per cubic meter (µg/m³) and occur primarily over oceans and coastal regions.

MARPOL Annex VI

Chapter 3: control of emissions from ships

Ozone Depleting
Substances



Volatile Organic
Compounds (VOCs)



Nitrogen Oxides
(NO_x)



Shipboard incineration
& reception facilities



Sulphur Oxides
(SO_x) and PM



Fuel oil availability
and quality



Chapter 4: regulations on the carbon intensity of international shipping

EEDI and EEXI



SEEMP, DCS, CII rating



Ratification of MARPOL Annex VI

- Air Pollution Conference 1997 adopted the **Protocol of 1997** to amend the MARPOL Convention, adding a new Annex VI entitled “Regulations for the Prevention of Air Pollution from Ships”
- Protocol of 1997 entered into force on **19 May 2005**.
- Number of Contracting States: **108** (as of 14 November 2025)
- **97.09 %** of the gross tonnage of the world’s merchant fleet
- Accession to MARPOL Annex VI via ratification of the Protocol of 1997.
- Entry into force in the Country 3 months after the date of deposit of the instrument of ratification



Why become a Party to MARPOL Annex VI?

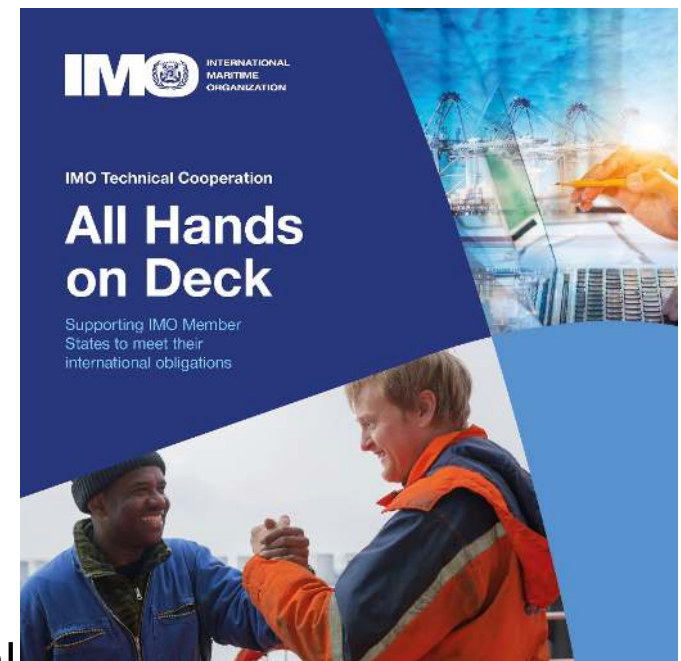
- Governments may wish to become Parties to MARPOL Annex VI as result of:
 - Protect marine environmental under their jurisdiction
 - Address air quality concerns under their jurisdiction
 - Concern for global environment and climate change
 - Benefits to their shipowners (worldwide acceptance of ships)
 - Benefits to the national naval and maritime industries' competitiveness
 - Benefits to their ports (means to control pollution)
- Parties to MARPOL have the **obligation** not to discharge harmful substances into the sea or to control the discharge of pollutants to the atmosphere
- But they in return have the **privilege** of not being polluted by other Parties (if they are, and the pollution occurs within their territorial waters, they can prosecute)

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Integrated Technical Cooperation Programme - ITCP

- **Assist developing countries** improve their ability to comply with international rules and standards relating to maritime safety the protection of the environment.
- Gives priority to **technical assistance programmes** that focus on human resources, development and institutional capacity building
- Activities mostly delivered through **IMO Secretariat** and **regional outreach mechanisms**, such as REMPEC or MTCCs, which coordinate and manage regional technical assistance programmes.



TC Thematic Programmes (TC 75/3(b))



Thank you.

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