

Multi-year Expert Meeting
on Transport, Trade Logistics and Trade
Facilitation:

**Trade Logistics and the 2030 Agenda for
Sustainable Development**

23-24 October 2017

by

Ms. Heike Deggim
Senior Deputy Director
Marine Environment Division
International Maritime Organization

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Regulatory developments regarding ship-source pollution control and CO₂ emissions from international shipping

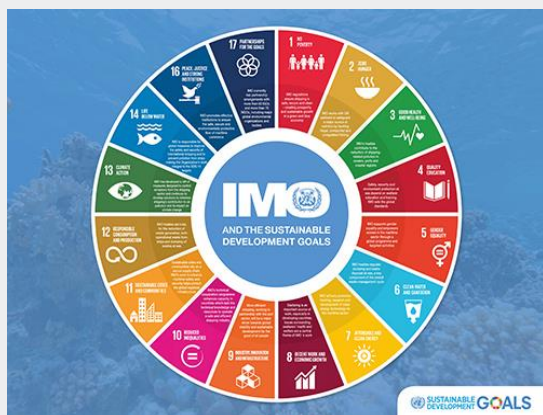
Multi-year Expert Meeting on Transport, Trade Logistics and Trade Facilitation
UNCTAD, Geneva, 23 and 24 October 2017

Dr. H. Deggim
Senior Deputy Director, Marine Environment Division, IMO



IMO INTERNATIONAL MARITIME ORGANIZATION

IMO's work and SDGs



- IMO is the UN specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution from ships
- IMO is fully committed to successful implementation of 2030 Agenda and associated SDGs
- most of the elements of the 2030 Agenda will only be realized with a sustainable transport sector supporting world trade and facilitating global economy
- while SDG 14 is central to IMO, aspects of IMO's work can be linked to most of the individual SDGs
- for more info see:

<http://www.imo.org/en/MediaCentre/HotTopics/Pages/SustainableDevelopmentGoals.aspx#number5>

Sustainable maritime development



- as global regulator of international shipping, IMO has developed a raft of measures designed to control emissions from the shipping sector
- international shipping was the first global industry sector subject to mandatory binding energy-efficiency regulations and standards addressing GHG emissions throughout the industry
- emissions are regulated by Annex VI of MARPOL, covering air pollution, energy efficiency and GHG emissions
- in addition, London Protocol addresses carbon capture and sequestration in subsea geological formations and marine geoengineering, such as ocean fertilization
- shipping takes place on the world's oceans, hence IMO's work is integral to most, if not all, of the SDG 14 targets
- to be sustainable, human activities have to be balanced with the oceans' capacity to remain healthy and diverse in the long term
- a major part of IMO's role is to ensure that shipping continues to make its contribution to the global economy without upsetting that delicate balance
- implementing and enforcing the main conventions and regulations adopted by IMO Member States actively addresses marine pollution, mainly from sea-based sources but also, at least indirectly, from land-based sources

Air pollution



Shipping is the most environmentally-friendly means of transport thanks to its efficiency, but it does have a significant impact particularly on coastal areas mainly due to the widespread use of heavy fuel oil

Emissions of air pollutants from ships

- Sulphur oxides (SO_x)
- Nitrogen oxides (NO_x)
- Particulate matter (PM)
- Volatile organic compounds (VOC)
- Ozone depleting substances (ODS)

Significant reductions in the emissions of all air pollutants generated on board are possible through the application of an array of abatement technologies and other technical and operational measures



Air pollution Fuel oil availability and quality



Fuel oil availability review

- Review of global sulphur content standard (0.50% m/m) to determine availability of compliant fuel oil (MARPOL Annex VI, regulation 14) completed in 2017.
- MEPC 70 decided that the sulphur content limit for ships' fuel oil of 0.50% m/m shall become effective on 1 January 2020.

Global sulphur cap implementation

- MEPC 71 agreed scope of work needed to achieve consistent implementation of 0.50% global sulphur cap as suggested by PPR 4.
- MEPC 71 approved holding of an intersessional working group meeting in the second half of 2018 to progress the work.

Fuel oil quality

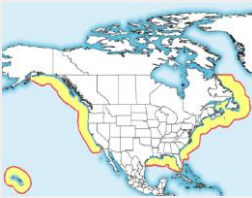
- MEPC 69 established correspondence group to further develop draft guidance on best practice for fuel oil purchasers/users and Member States/coastal States.

Fuel oil quality correspondence group

- MEPC 71 further developed draft guidance on best practice for fuel oil purchasers/users, with a view to finalization at MEPC 72.
- Best practice for Member States/coastal States will be finalized at MEPC 73.

Air pollution Emission control areas (ECAs)

Stricter limits for SO_x, PM and NO_x



North American and US Caribbean Sea ECAs
SO_x, PM and NO_x

North Sea and Baltic Sea ECAs
currently SO_x; NO_x from 1 Jan 2021

- Compliant fuel oil, e.g. ultra low sulphur fuel oil or marine gas oil
- Equivalent, e.g. exhaust gas cleaning systems (scrubbers)
- Alternative fuels, e.g. gas (dual fuel or gas only), biodiesel, methanol, etc.
- Onshore power supply when at berth in ports



Energy efficiency of ships



Shipping is the most efficient means of transport, but there is increased attention on further improving the energy efficiency of ships

Technical tools (new ships)

- EEDI (Energy Efficiency Design Index)

$$EEDI = \frac{CO_2 \text{ emission}}{\text{transport work}}$$

Operational tools (existing ships)

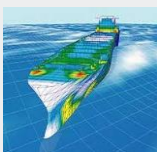
- EEOI (Energy Efficiency Operational Indicator)
- SEEMP (Ship Energy Efficiency Management Plan)

Goal: Significant reduction of greenhouse gas emissions

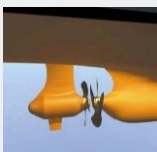
Energy efficiency of ships EEDI and related work



Outcome of MEPC 71

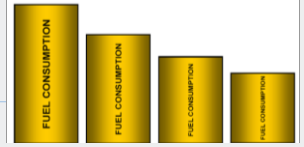


MEPC 71 approved draft amendments to regulation 21 of MARPOL Annex VI regarding EEDI requirements for ro-ro cargo and ro-ro passenger ships, with a view to adoption at MEPC 72.



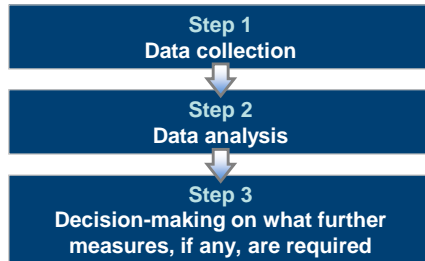
MEPC 71 also established a correspondence group on review of the Energy Efficiency Design Index (EEDI) beyond phase 2, to report on progress by MEPC 72 and make a recommendation to MEPC 73 on the time period and reduction rates for EEDI phase 3 requirements.

Energy efficiency of ships Further measures



Data collection system for fuel consumption adopted at MEPC 70

3-step approach agreed at MEPC 68



Step 1: Data collection will provide basis for objective, transparent and inclusive policy debate at MEPC

Outcome of MEPC 71

- Adoption of 2017 Guidelines for Administration verification of ship fuel oil consumption data
- Adoption of 2017 Guidelines for the development and management of the IMO Ship Fuel Oil Consumption Database
- Approval of MEPC circular on Submission of data to the IMO data collection system for fuel oil consumption of ships from a State not Party to MARPOL Annex VI

GHG emissions from ships



Third IMO GHG Study 2014 approved at MEPC 68

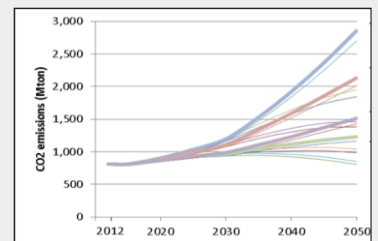
- Shipping CO₂ emissions are projected to increase by 50% to 250% in the period to 2050, depending on future economic and energy developments

New global climate change agreement finalized at UNFCCC COP 21 in December 2015 (Paris Agreement) – entered into force on 4 November 2016

- Shipping is not explicitly mentioned in the Agreement, but there is increasing pressure for action to reduce GHG emissions from ships
- IMO is the competent UN agency to address this matter

Outcome of MEPC 71

- Draft outline of the structure of the initial IMO GHG Strategy (following the Roadmap for developing a comprehensive IMO Strategy agreed at MEPC 70)
- Intersessional Working Group on Reduction of GHG emissions from ships continues (meetings: July 17, Oct 2017 and April 2018 (before MEPC 72), more planned)



Thank you for listening.

