The International Maritime Transport and logistics Conference

Towards Global Competitiveness in Maritime Industry

"INVESTING IN PORTS"

The Trends, The Future

8 2019 Marlog

The role of IMO in the implementation of the United Nations Sustainable Development Goals

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Outline of Presentation

Introduction

Relevant Historical Developments

Sustainable Development and RIO+20 United Nations Conference on Sustainable Development

The 17 SDGs and 169 Targets

SUSTAINABLE DEVELOPMENT GOALS

IMO and Sustainable Development

The Obvious Goal:

14 LIFE BELOW WATER

Other Relevant Goals to IMO

IMO's actions

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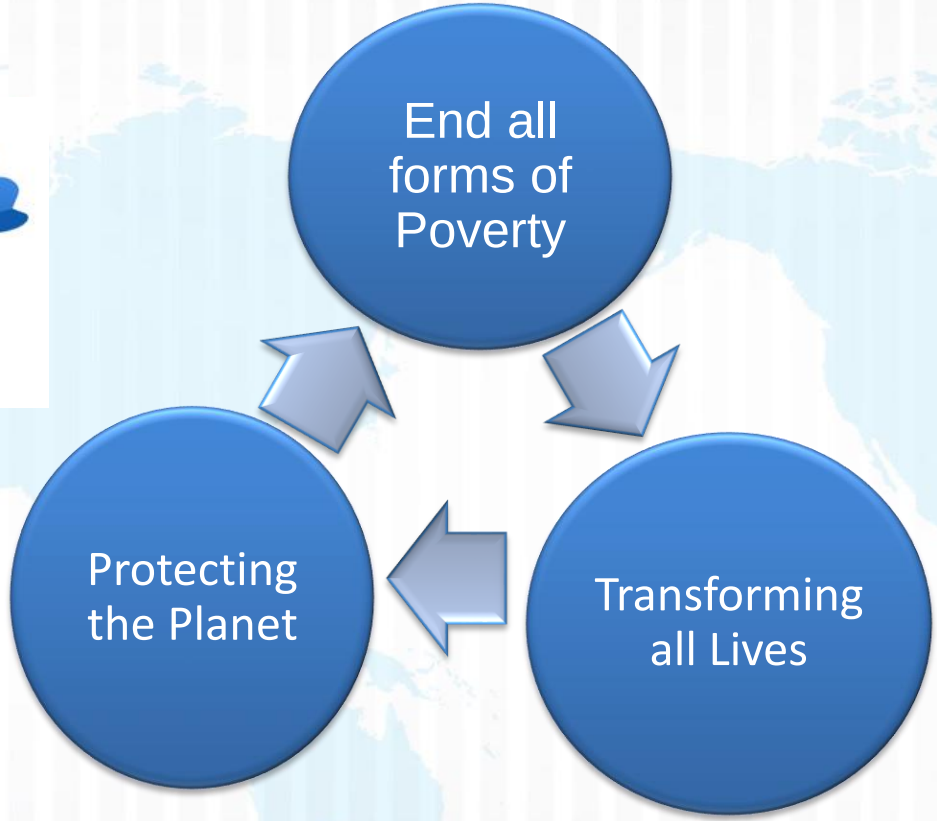
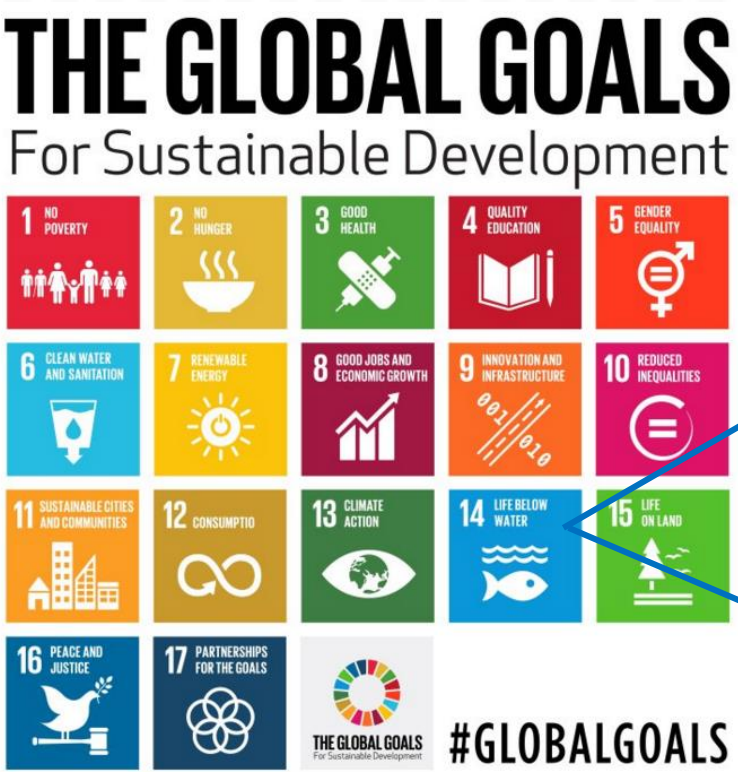
Aim of the SDGs



UN Sustainable Development Goals
17 Sustainable Development Goals and 169 targets:

Emergence of the Blue Economy



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Sustainable Development Goal 14

The Multiple Use Ocean












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The Rise of the Blue Economy

The Blue Economy refers to a sustainable ocean based economic model that is largely dependent on coastal and marine ecosystem and resources

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The Rise of the Blue Economy

"All around the world, in nearly every nation with a coastline, people and governments are talking about the 'Blue Economy': **using the sea's resources to fuel economic growth and increase prosperity**."

Table 1: Global economic output of the world's oceans and seas, per year

Type of output	Billion US$
Direct output (fishing, aquaculture, etc.)	400 - 420
Services (tourism, education etc.)	365 - 400
Trade and transportation (shipping)	700 - 750
Adjacent benefits (carbon sequestration, biotechnology etc.)	890 – 1,000
Other intangible benefits*	non-quantifiable
TOTAL	**US$2.4 – 2.6 TN**

* "Intangible benefits" includes, for example, oxygen production and global temperature stabilization, as well as spiritual and cultural values.

Source: "Restoring the Ocean Economy – Action Agenda 2015," WWF

The Rise of the Blue Economy

Estimated Global Blue Growth until 2030

x 2 Coastal tourism

x 4 Shipping

x 2 Oil & Gas

x 4 Fisheries

x 40 Offshore wind

x 2 Aquaculture

x 10, 100, ??? Sea-bed mining

Marine sectors are expected to expand dramatically in the coming years, with most doubling or quadrupling in size by 2030, and others growing to ten times their current size or larger.

Sources: Strategic Transport Infrastructure Needs to 2030, OECD, 2012; Tourism Towards 2030, UNWTO, 2011, Douglas-Westwood, 2013; FAO; Blue Growth – opportunities from the marine and maritime sustainable growth, EC, 2012; Renewable Energy Outlook 2013; EIA; Marine Biotechnology, Enabling Solutions for Ocean Productivity and Sustainability, OECD, 2013.

Contribution of the Blue Economy






- **Ports & Shipping**
  - Shipping
  - Ports
- **Food, Nutrition & Health**
  - Fishing
  - Mariculture
  - Blue Biotechnology
- **Energy & Raw Materials**
  - Offshore Petroleum
  - Marine Renewable Energy
  - Marine Minerals
- **Tourism & Leisure**
  - Tourism
  - Leisure - Amenity
- **Habitats, Ecosystem Services & Coastal Protection**
  - Marine Ecosystem Services
  - Marine Habitats & Conservation
- **Maritime Monitoring & Surveillance**
  - Maritime Surveillance
  - Environmental Monitoring

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Oceans - Key Facts

UNDP
Empowered lives.
Resilient nations.

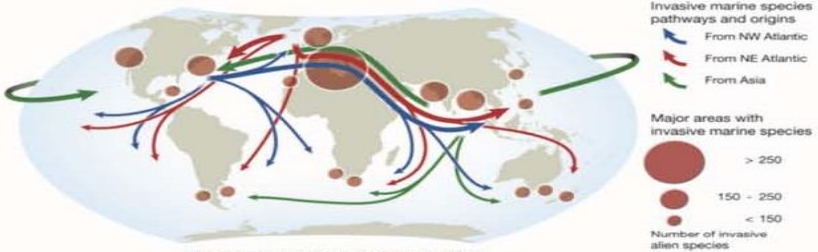
Contribution per year to the world economy

- US$ 3 trillion — Contribution of oceans to the global economy
- US$ 100 billion — Contribution of fisheries and aquaculture to the global economy
- US$ 271 billion — Estimated value of coastal tourism
- US$ 900 billion — Value of global oil extraction that occurs in offshore waters

Ocean goods and services are at significant risk

80%
of global fish stocks are fully exploited, overexploited or collapsed

30%
increase in ocean acidity over the last 50 years is negatively impacting ocean ecosystems



Explosion of invasive marine species due to rapid growth of the shipping industry

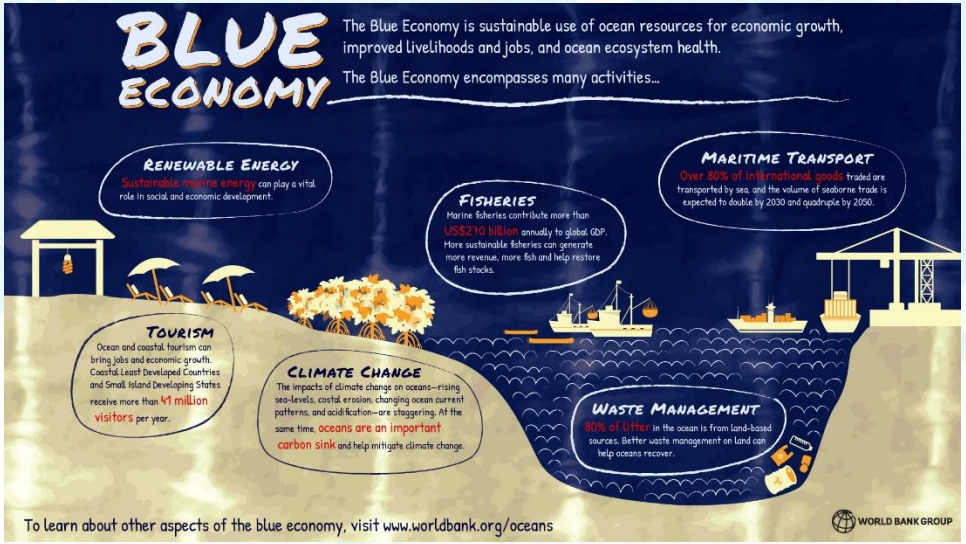
10-20 million mt
of plastics produced is entering the oceans every year, damaging species and ecosystems

20%
of the world's coral reefs have already been lost and another 20% degraded

500
coastal hypoxic areas have been identified, which result from an increase in nutrient loads to the oceans

World Bank's Blue Economy Program

- The World Bank’s active Blue Economy portfolio is around $4.1 billion with a further $1.5 billion in the pipeline.



WORLD BANK GROUP

First United Nations Ocean Conference
New York, United States – June 2017

- "Our Oceans, Our Future: partnering for the implementation of Sustainable Development Goal 14"
- First SDG Conference for the 2030 Agenda
- Co-hosted by Fiji and Sweden
- 6,000 delegates
- >150 side events
- Outcomes:
  1. Global Call for Action
  2. Partnership Dialogues
  3. Voluntary Commitments

THE OCEAN CONFERENCE
UNITED NATIONS, NEW YORK, 5-9 JUNE 2017

Sustainable Blue Economy Conference
Nairobi, Kenya - November 2018

- Convened by Kenya and co-hosted by Canada and Japan
- 16,320 delegates
- 184 countries
- 7 heads of states
- 64 side events

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Second United Nations Ocean Conference
Lisbon, Portugal – June 2020

- Second SDG Conference for the 2030 Agenda

- To be co-hosted by Portugal and Kenya

- Four of the ten targets of SDG 14 mature in 2020, and the majority of the voluntary commitments are also pledged for completion by that year, so this would be an ideal opportunity to assess progress, as well as to launch the Decade of Ocean Science for Sustainable Development 2021-2030, which will be led by UNESCO's Intergovernmental Oceanographic Commission

PROBLUE: Supporting integrated and sustainable economic development in healthy oceans

- PROBLUE focuses on four key themes:

  I. the management of fisheries and aquaculture;

  II. the threats posed to ocean health by marine pollution, including litter and plastics;

  III. the sustainable development of key oceanic sectors such as tourism, maritime transport and off-shore renewable energy; and

  IV. building the capacity of governments to manage their marine and coastal resources in an integrated fashion to deliver more and long-lasting benefits to countries and communities.

IMO's steps in the implementation of the Blue Economy

2030 Agenda for Sustainable Development

↓

Country Maritime Profile

↓

Maritime Transport Policy

↓

Related Blue Economy

SDG 5: Achieve gender equality and empower all women and girls

WOMEN IN MARITIME
IMO's GENDER PROGRAMME

• The global economic output of the world's oceans and seas is US$2.4-US$2.6 trillion per year and there is ample evidence that investing in women is the most effective way to lift communities, companies and countries.

• Empowering women to participate equally in the global economy could add US$28 trillion in GDP growth by 2025.

IMO World Maritime Day theme 2019

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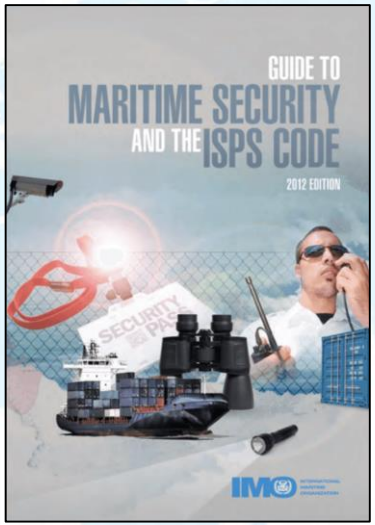
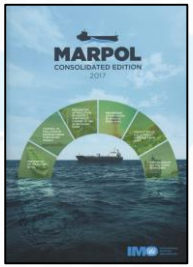
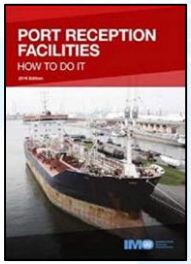
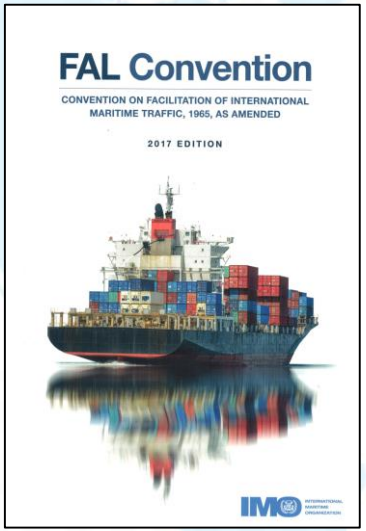
IMO and ports









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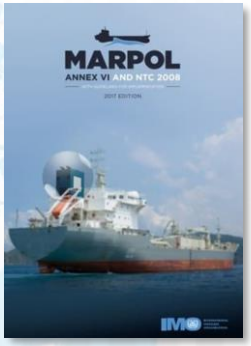
Harmful air pollutants in the port area

• Approximately **230 million people are directly exposed** to harmful emissions (NOx, SOx and PM) from ships in the top 100 ports globally

• 2 main categories of measures:

–International regulation of ship emissions (MARPOL Annex VI)

–Local initiatives of individual ports



Top 10 environmental priorities of the European port sector over time

	1996	2004	2009
1	Port development (water)	Garbage / Port waste	Noise
2	Water quality	Dredging: operations	Air quality
3	Dredging disposal	Dredging disposal	Garbage / Port waste
4	Dredging: operations	Dust	Dredging: operations
5	Dust	Noise	Dredging: disposal
6	Port development (land)	Air quality	Relationship with local community
7	Contaminated land	Hazardous cargo	Energy consumption
8	Habitat loss/degradation	Bunkering	Dust
9	Traffic volume	Port development (land)	Port development (water)
10	Industrial effluent	Ship discharge (bilge)	Port development (land)

(source: ESPO, 2012)

Port-related GHG emissions

Port-related GHG emissions account for only **2% of total shipping CO_2 emissions** but they are **projected to rise four-fold by 2050** on a business-as-usual basis (Merk, *Shipping Emissions in Ports*, OECD-ITF, 2014)

The **majority of port-related emissions of CO_2 come from ships** rather than landward activities (58% in European and Asian ports) therefore decarbonization of ships will make a major contribution to port decarbonization

Relative emissions from ship, ports and inland transport: example of carbon intensity values from container movement from China (Wuhan) to UK (Glasgow)

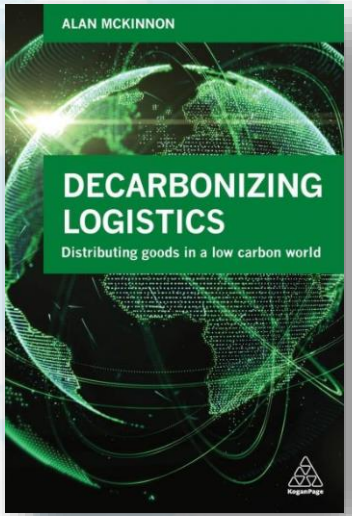
Road in China
120g/tonne-km

Port
16-18kg/
container

Deep sea
12g/tonne-km

Port
16-18kg/
container

Road in UK
75g/tonne-km
(Rail in UK
31g/tonne-km)



(McKinnon, *Decarbonizing logistics*, 2018)

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Overview of global initiatives to address port-related emissions

GloMEEP

•GEF-UNDP-IMO Global Maritime Energy Efficiency Partnerships project

Objective: Build capacity in developing countries for implementing the technical and operational measures for energy efficient shipping and catalyze overall reductions in GHG emissions from international shipping.

10 Lead Pilot Countries: Argentina, China, Georgia, India, Jamaica, Malaysia, Morocco, Panama, Philippines and South Africa

•Following a strategic partnership between IMO/GloMEEP and IAPH, two port emissions guides have been published to support developing countries in:

Gaining a better understanding of emissions in their ports

Developing strategies to address emissions

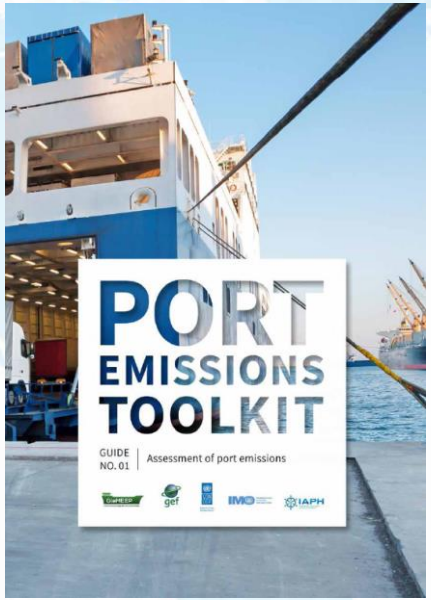
•New port emissions workshop package developed and rolled-out in all GloMEEP countries

Overview of global initiatives to address port-related emissions

- **Guide No.1: Assessment of port emissions**
- Updates previous works
- Covers critical inventory planning elements

Drivers
Source categories
Geographical & operational domains
Air quality pollutants & GHGs
Level of detail
Data streams

- Port-related sources
- Regulatory frameworks
- Types of assessments
- Methods & approaches
- Assessing tools & use
- Putting results in perspective
- Comparing year over year

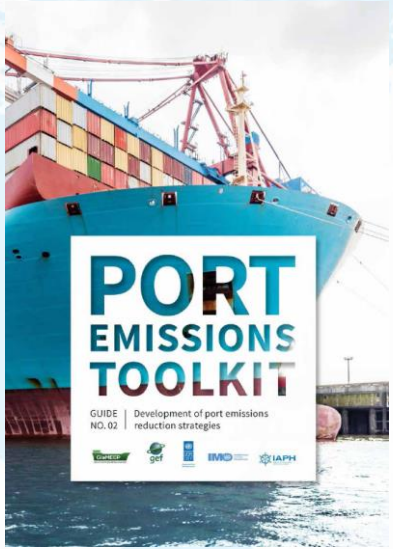


Available here:
http://glomeep.imo.org

Overview of global initiatives to address port-related emissions

GLOMEEP

•Guide No.2 : Development of port emission reduction strategies



Available here: http://glomeep.imo.org

- Updates previous works
- Covers critical strategy planning elements

Drivers

Challenges & opportunities for viable strategies

Pollutant/GHG hierarchy

Strategy analysis & evaluation considerations

Implementation options & considerations

Administration considerations

Tracking progress & reporting considerations

- Methods & approaches
- Scenario analysis
- One-off strategy vs. programmatic approaches
- Determining cost effectiveness
- Strategy ranking & selection considerations
- Examples

Host Institutions, The Maritime Technology Cooperation Centres (MTCCs) and their Geographic Scope

MTCC	Host Institution	# of Member States
MTCC Caribbean	The University of Trinidad and Tobago	16 Countries
MTCC Latin America	International Maritime University of Panama	17 Countries
MTCC Africa	Jomo Kenyatta University of Agriculture and Technology	42 Countries
MTCC Asia	Shanghai Maritime University	32 Countries
MTCC Pacific	Pacific Community & SPREP	13 Island States

The Project is Funded by the European Union and implemented by the International Maritime Organization

Thank you for your attention.