Asia-Pacific
Economic Cooperation

2013/SOM1/SCE-COW/DIA/003

Sustainable Development – IMO's Contribution Beyond Rio+20

Submitted by: IMO

Dialogue on Mainstreaming Ocean-Related Issues in APEC
Jakarta, Indonesia
4 February 2013

SUSTAINABLE DEVELOPMENT: IMO'S CONTRIBUTION BEYOND RIO+20

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APEC SCE-COW
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IMO – specialized UN agency

- 170 Member States
- IGOs and NGOs
- London headquarters
- Annual budget £30+ M
- Secretariat: 300+ staff
- 50+ Nationalities
- Secretary-General: Koji Sekimizu, Japan

53 treaties covering all aspects of international shipping
Design – Construction - Equipment – Operation – Maintenance – Manning
Prevention – Response – Liability - Compensation
Safe, secure and efficient shipping on clean oceans!


International Legal Framework – 3 pillars
Prevention
Preparedness
Response
TECHNICAL COOPERATION
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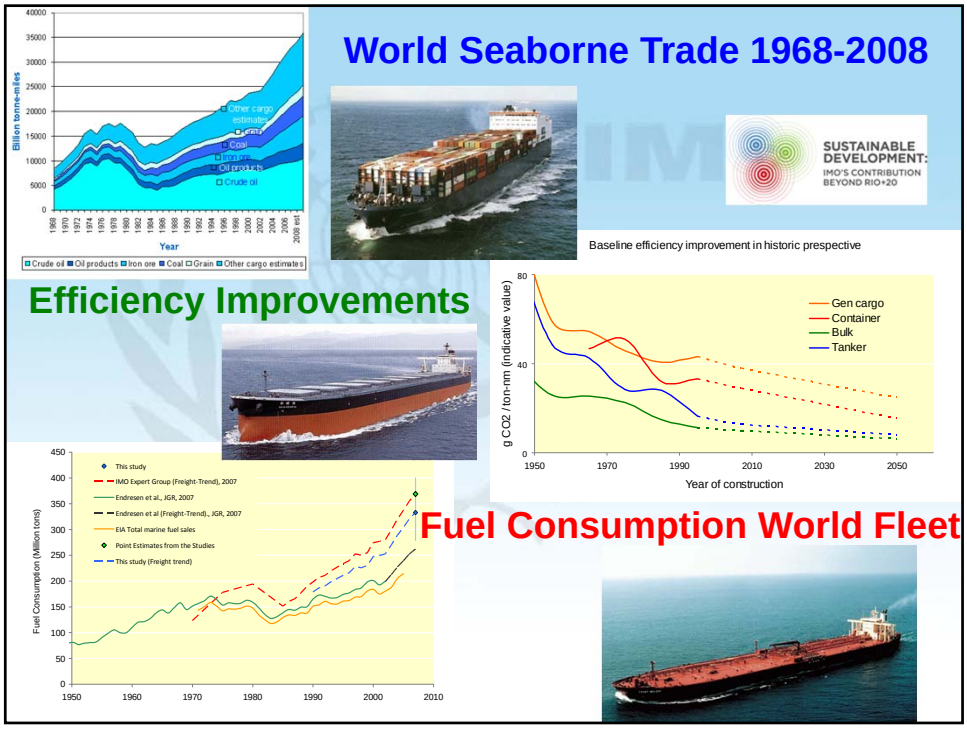
IMO
INTERNATIONAL MARITIME ORGANIZATION


IMO
It may look like an ocean,
but it really is a highway!


World Seaborne Trade 1968-2008
Billion tonne-miles
Year
Crude oil
Oil products
Iron ore
Coal
Grain
Other cargo estimates
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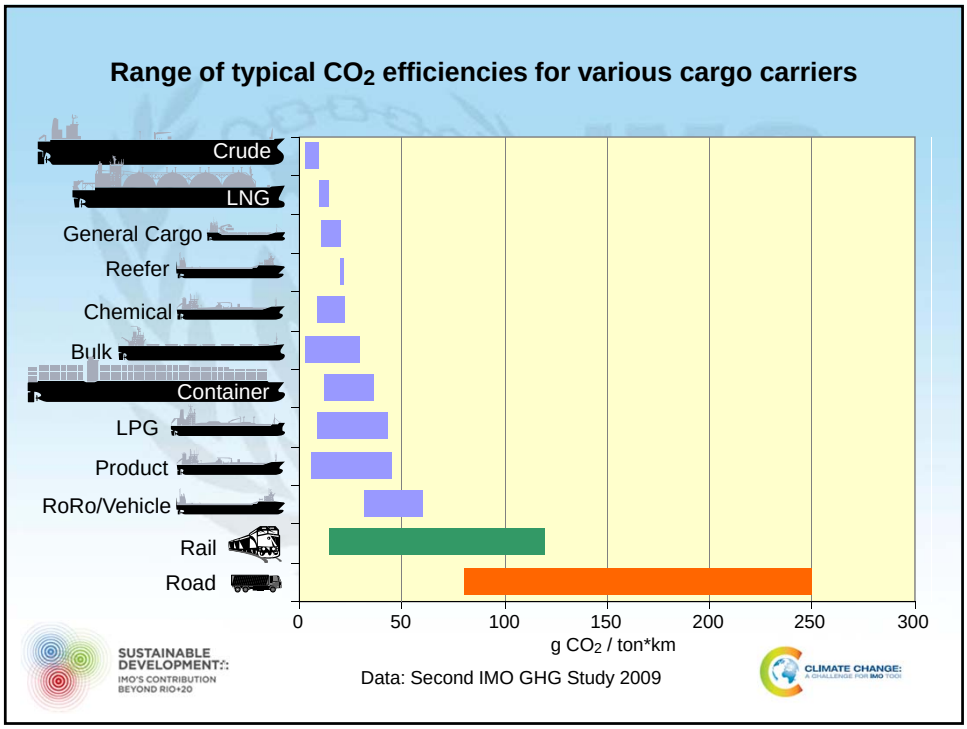
Baseline efficiency improvement in historic prespective
Efficiency Improvements
g CO2 / ton-nm (indicative value)
Year of construction
Gen cargo
Container
Bulk
Tanker
Fuel Consumption (Million tons)
This study
IMO Expert Group (Freight-Trend), 2007
Endresen et al., JGR, 2007
Endresen et al (Freight-Trend)., JGR, 2007
EIA Total marine fuel sales
Point Estimates from the Studies
This study (Freight trend)
Fuel Consumption World Fleet


Range of typical CO_2 efficiencies for various cargo carriers
Crude
LNG
General Cargo
Reefer
Chemical
Bulk
Container
LPG
Product
RoRo/Vehicle
Rail
Road
0
50
100
150
200
250
300
g CO_2 / ton*km
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Data: Second IMO GHG Study 2009
CLIMATE CHANGE:
A CHALLENGE FOR IMO TOO!

IMO's work on GHG control and Energy Efficiency

Work on air pollution prevention from late 1980s

In 1991 IMO Assembly called for development of MARPOL Annex VI: on Air Pollution

The 1997 MARPOL Conference's on Annex VI called for GHG action by IMO

First IMO GHG Study published in 2000 (1.8% - 1996, significant growth, reduction potential)

Development of T&O measures, including EEOI, EEDI, SEEMP: 2000 – 2009, and ------

IMO's GHG policy adopted by Assembly 23 in December 2003 (res.963(23))

Voluntary application and testing of T&O by administrations and industry: 2005 – 2012

Basic principles adopted in April 2008: Universal application to all ships

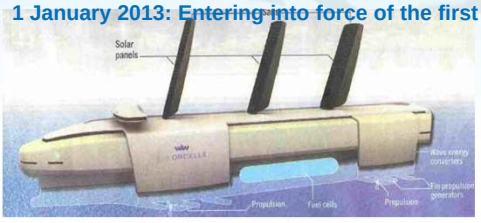
Second IMO GHG Study 2009 published (2.7% of global total - 2007, large reduction potential)

Regulatory text developed 2009 – 2011

2011: Adoption of new chapter 4 to MARPOL Annex VI: mandatory T&O measures

Development of an MBM from 2007, Expert Group reported in 2010

1 January 2013: Entering into force of the first global CO2 regime for an industry sector



Technical - mainly applicable to new ships - EEDI
Operational - applicable to all ships in operation – SEEMP and EEOI
Market-based Measures (MBM) – carbon price for shipping, offsetting, incentive, may generate funds

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Breakthrough at IMO

MEPC 62 in July 2011

In force from 1 January 2013

Mandatory energy efficiency Measures adopted (EEDI and SEEMP) for all ships by inclusion of new chapter 4 in MARPOL Annex VI

Further development of supporting guidelines on:

- Calculation of EEDI
- EEDI Reference Lines (average of ships built 1999 – 2009)
- EEDI Survey and Certification
- Development and implementation of SEEMP
- EEOI - Energy Efficiency Operational Indicator (MRV tool and benchmark)

Workplan adopted on EEDI formulas for ship types and propulsion systems not yet covered

Development of guidelines for design and operation of small craft and other non-convention vessels

Examples of efficiency measures:

Technical:

- -Improved hull design and engine efficiency
- -More efficient propellers and rudders
- -Larger ships, combination carriers
- -Reduce installed power (speed)
- -Wind and solar power
- -Alternative fuels

Operational:

- -Speed and energy management
- -Improved routeing & less waiting (just in time)
- -Enhanced fleet management and better utilization

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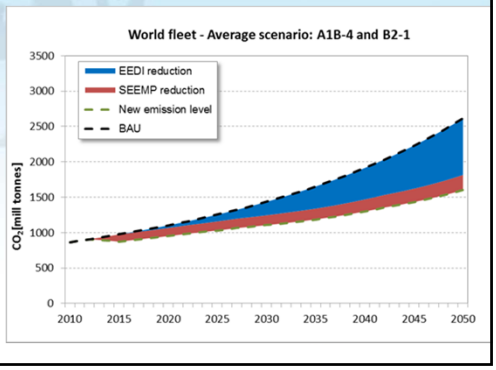
Effects of amendments

Following the adoption, IMO commissioned a study from LR/DNV to estimate the effects, document MEPC 63/INF.2

- 2020 – combined effects of EEDI and SEEMP
  103 - 200 million tonnes of CO2
  10 – 17% reduction over BAU
  US$ 20 – 80 billion annual fuel cost savings
- 2030
  237 - 423 million tonnes of CO2
  18 – 26% over BAU
  US$ 90 – 310 fuel cost savings
- 2050
  706 – 1320 million tonnes of CO2
  35 – 41% reduction over BAU



Technical Cooperation and Capacity Building activities 2011 – 2013 on EEDI and SEEMP

Model course for energy efficient ship operation developed by WMU – Finalized and issued in 2011. To be used for officers training by education institutes and the industry, important for future training

ITCP: $650,000 for awareness raising and training activities

Training material produced for: (1) awareness raising, (2) energy efficient ship design, (3) energy efficient ship operation, and (4) Port State Control related to MARPOL Annex VI

First awareness raising workshop in Durban in November 2011

Agreement with KOICA for a South East Asian Climate Capacity Building Partnership in Maritime Transport - $700.000 for 2011 - 2013.

A total of 12 workshops in the region: November 2011 – April 2013

Dialog with donors for a global project: $5 – 10 millions

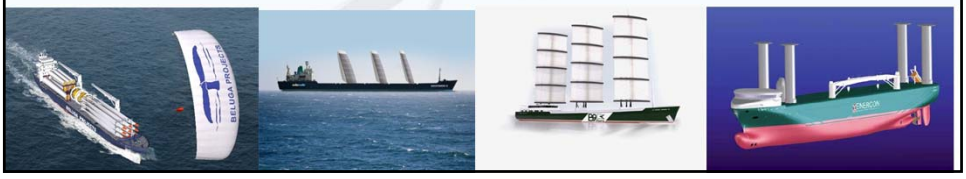
Sustainable Maritime Development in the wake of Rio+20

IMO used Rio+20 to highlight that international shipping contributes significantly to the three pillars of sustainable development – economic, social, and environmental.

Sustainable Development: IMO's Contribution beyond Rio+20
Chosen as theme for WMD 2013 (World Maritime Day 2013 – 27 September)

The Secretary-General has established a taskforce, to work with industry and interested stakeholders on the development and implementation of Sustainable Development Goals for the maritime transport sector, which will be IMO's own contribution to the United Nations led work on Sustainable Development Goals.

The Secretary-General has also established a new mechanism for implementation monitoring, a forum to promote innovations and new maritime technologies both related to safety and protection of the environment as well as initiatives on maritime training.



Sustainable Maritime Development Goals

- A clear concept of Sustainability for the Maritime Industries
- Realistic but ambitious goals (SMART).

Taskforce focussing on eight pillars:
- Safety culture and environmental stewardship;
- Energy efficiency;
- New technology and innovation;
- Maritime education and training;
- Maritime security and anti-piracy actions;
- Maritime traffic management;
- Maritime infrastructure development; and
- Global standards through IMO.

Sustainable Maritime Development

As the United Nations' regulatory body for international shipping, IMO is the focal point for, and the driving force behind, global efforts to ensure that the industry becomes greener and cleaner.

With shipping being so essential to the continued development and future growth of the world economy, IMO must and will continue to take the lead in supporting the shipping industry with the appropriate global standards and by helping to promote, through technical co-operation, the necessary national maritime transportation policy and institutional frameworks for the sustainable maritime transportation sector worldwide, but, in particular in developing countries.

Technical Cooperation/Capacity building

The National Maritime Profile

will be IMO's new tool …

- To identify the exact needs of developing countries
- To ensure effective delivery of Technical Co-operation aims
- To pinpoint ITCP activities

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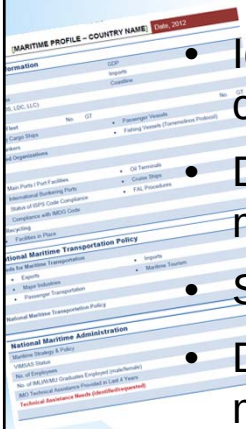
National Maritime Profiles: an effective tool to collect relevant data to assist in:



- Identifying the real maritime capacity-building needs
- Developing national or regional maritime strategies and policies
- Studies and projects for donors
- Development projects related to maritime infrastructure, training and permanent institutions

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Summary

Over the years, IMO has built a formidable corpus of international maritime legislation aimed at strengthening safety for life at sea and preventing ship-source pollution, and mitigating any adverse effects from shipping operations on the environment.

IMO's determination to ensure that international shipping keeps contributing to the world's development in an environmentally sustainable manner has never been firmer.

The Secretary-General's initiatives on Sustainable Maritime Development and the establishment of National Maritime Profiles to improve IMO's Technical Cooperation and Capacity Building activities; will assist general development and help the global shipping industry to become even safer and cleaner, and also support the United Nations work on sustainable development.

www.imo.org

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