COP 18 Side Event

"The Tourism Sector's Response to Climate Change"

Doha, Qatar

29th November 2012

International shipping's role as part of the tourism sector's response to climate change

IMO INTERNATIONAL MARITIME ORGANIZATION

CLIMATE CHANGE: A CHALLENGE FOR IMO TOO!

International Maritime Organization

- The IMO Convention adopted in 1948 and IMO first met in 1959
- A specialized agency of the UN
- 170 Member States
- Develop and maintain a comprehensive regulatory framework for shipping
- Safety, environment, legal matters, technical co-operation, security and the efficiency of shipping

Safe, secure and efficient shipping on cleaner oceans

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Shipping affects us all.....

- ~16 million cruise passengers
- ~90% of world trade is by sea
  - Raw materials and commodities
  - Finished goods
  - Foodstuffs
  - Fuel
- Underpins global, regional and local economies
- ~3% of global GHG emissions

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Sustainable maritime development

Yeosu Declaration from the viewpoint of IMO, 12 August 2012

"The Sustainable Development Goals for the maritime industry will focus on eight pillars:

- **safety culture and environment stewardship;**
- **energy efficiency – reducing CO2 emissions from ships**
- **new technology and innovation**
- **maritime education and training**
- **maritime security and anti-piracy actions**
- **maritime traffic management**
- **maritime infrastructure development**
- **global standards to be developed and maintained by IMO"**

IMO Secretary-General , Mr. Koji Sekimizu

IMO work to address GHG emissions from international shipping

IMO Resolution A.963(23)

- **IMO Policies and Practices Related to the Reduction of Greenhouse Gas Emissions from Ships**
- **IMOs work to address GHG emissions has three distinct routes:**

Technical (EEDI)
mainly applicable to new ships

Operational (SEEMP & EEOI)
applicable to operation of existing ships

Market-based Measures (MBM)
carbon price for shipping, incentive, may generate funds

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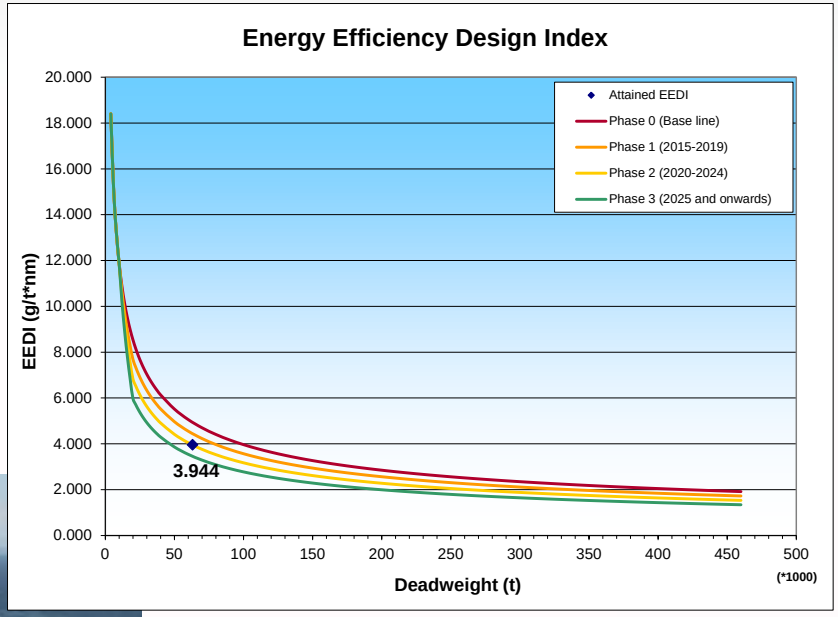
Energy Efficiency Design Index (EEDI)

$$EEDI = \frac{\text{Impact to environment}}{\text{Benefit to society}} = \frac{\text{Power} \times \text{fuel consumption} \times CO_2 \text{ emission factor}}{\text{Capacity} \times \text{ship speed}}$$

(transportation work)

- **The EEDI is likely to promote innovation at the design stage of ships for a reduction of their energy consumption at full load.**
- **The EEDI is applicable to ship types responsible for 71% of CO_2 emissions from international shipping**



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SEEMP - onboard management tool to include:

- **Improved voyage planning** (Weather routeing/Just in time arrival at port)
- **Speed and power optimization**
- **Optimized ship handling** (ballast/trim/use of rudder and autopilot)
- **Improved fleet management**
- **Improved cargo handling**
- **Energy management**

Action by cruise passenger industry

- Environmental stewardship practices are followed that seek to fully protect the communities, ports and waters
- Energy efficiency improved through design:
  - Hull and coatings (silicone)
  - Podded propulsion systems
  - Use of onshore power supply

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Action by cruise passenger industry

- **Reducing energy consumption inside ship (auxiliary power)**
  - **significant power demand on cruise ships (e.g. 50 MW QM2)**
  - **installing high energy efficiency appliances**
  - **utilizing LED lights, which last 25 times longer and use 80% less energy, and generate 50% less heat than halogen and incandescent light bulbs**
  - **recycling hot water to heat passenger cabins**
  - **installing special window tinting to keep passengerways cooler and so reduce air conditioning demand**
  - **reducing water consumption – less energy to make/treat**
- **Future improvements – gas fuelled passenger ships**

Technical co-operation and capacity building

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Preliminary Assessment of Capacity Building Needs (MEPC 61/5)

- Raising general awareness (GHG emissions issue, related regulations and technological solutions)
- Updating of relevant national maritime legislation
- Training of appropriate flag State and port State control officers
- Specialist training for the crew (EEDI and SEEMP)
- Technical assistance to developing countries

Objectives

- **Enable developing countries to develop and implement, at the national level, appropriate action on GHG emissions from shipping, whilst at the same time promote sustainable development.**

- **Establish permanent self-sustaining legal/regulatory, policy and institutional arrangements to ensure uniform application of IMO's policies for the reduction of GHG emissions from ships**

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IMO Capacity Building example

- **IMO-KOICA signed two year agreement in April 2011 (US$700,000 KOICA + US$400,000 IMO = US$1.1million)**
- **Focus on building capacity and capability in East Asian countries with maritime interests including Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam**
- **10 activities in total (workshops, training materials, etc.)**
- **Activities include national and sub-regional workshops to raise awareness of IMO work to address GHG emissions from international shipping, energy efficient ship design and ship operation**
- **Training and communication materials available for use by all member states**

Products and tools from the ongoing interventions

- Awareness Raising Materials
- Model Course on Ship Operation (by WMU)
- Training Package on Ship Design
- Training Package on Ship Operation
- Train-the-trainer Tools

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Summary

- International shipping addressing GHG emissions through mandatory technical and operational measures
- Cruise shipping industry taking action to improve the energy efficiency of their ships
- New energy efficiency regulations require capacity building effort for successful implementation by all IMO member States
- Current plans include scaling up Technical Cooperation activities
- Training and outreach materials may be used by Member States in their domestic activities

Thank you for your attention

For more information please see:
www.imo.org