

**UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE  
SIXTEENTH CONFERENCE OF THE PARTIES – COP 16**

**Note by the International Maritime Organization  
to the thirteenth session of the Ad-hoc Working Group on Long-Term Cooperative  
Action under the Convention (AWG-LCA 13)**

**Agenda item 3 – Preparation of an outcome to be presented to the Conference of the Parties for adoption at its sixteenth session to enable the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012**

**GREENHOUSE GAS EMISSIONS FROM SHIPS ENGAGED IN INTERNATIONAL TRADE**

5 November 2010

**SUMMARY**

The Marine Environment Protection Committee of IMO, meeting for its 61<sup>st</sup> session made further progress in developing measures to improve the energy efficiency of ships, in order to reduce greenhouse gas (GHG) emissions from international shipping.

Having considered means by which technical and operational measures could be introduced in the Organization's regulatory regime, the Committee noted the intention of some States party to MARPOL Annex VI – *Regulations for the prevention of air pollution from ships*, to request the Secretary-General to circulate proposed amendments to that Annex, to make mandatory the Energy Efficiency Design Index (EEDI) and the Ship Energy Efficiency Management Plan (SEEMP), both of which have already been disseminated for voluntary use. The circulated draft amendments will be considered by the Committee's next session, in July 2011, with a view to adoption under MARPOL Annex VI. The Committee also noted, however, that some other States did not support the circulation of the proposed amendments.

The Committee also held an extensive debate on how to progress the development of suitable market-based measures (MBMs) for international shipping, following the submission of a comprehensive report by an Expert Group, which had carried out a feasibility study and impact assessment of several possible market-based measures submitted by governments and observer organizations. The Committee agreed to continue the work on development of an MBM for international shipping at an inter-sessional meeting in March 2011 in order to comply with its work plan on further consideration of MBMs which culminates in July 2011.

1 The Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO), meeting for its 61st session in London, made further progress in developing measures to improve the energy efficiency of ships, in order to reduce greenhouse gas (GHG) emissions from international maritime transport.

2 Although international maritime transport is the most energy efficient mode of mass transport and only a modest contributor to global CO<sub>2</sub> emissions (2.7% in 2007) while carrying 90% of world trade, a global approach for further improvements in energy efficiency and emission reduction is needed as sea transport is predicted to continue growing significantly in line with world trade. IMO's work on enhanced energy efficiency and GHG emission control has three distinct building blocks and the Organization has over several years developed technical and operational reduction measures that will when fully implemented significantly improve the maritime sector's carbon footprint. The third building block is the market-based mechanisms where IMO currently is working in accordance with a work plan culminating in 2011.

### **Technical and operational measures**

3 Having considered means by which technical and operational measures could be introduced in the Organization's regulatory regime, the Committee noted the desire of some States party to MARPOL Annex VI – *Regulations for the prevention of air pollution from ships* to request the Secretary-General to circulate proposed amendments to that Annex, to make mandatory, for new ships, the Energy Efficiency Design Index (EEDI) and the Ship Energy Efficiency Management Plan (SEEMP)), both of which have been previously disseminated for voluntary use. The circulated draft amendments would then be considered by the Committee's next session with a view to adoption under MARPOL Annex VI. The Committee also noted, however, that some other States did not support the circulation of such amendments.

4 Although decisions as to how to proceed with the next step of IMO's climate change strategy were not reached by consensus, nevertheless the Committee made noteworthy progress on all three elements of its GHG work, namely technical, operational and market-based measures, and it is expected that further substantial progress will continue to be made at its next meeting in July next year.

5 The EEDI will establish a minimum energy efficiency requirement for new ships depending on ship type and size and is a robust mechanism to increase the energy efficiency of ships step-wise for many decades to come. The EEDI is a non-prescriptive, performance-based mechanism that leaves the choice of technologies to use in a specific ship design to the industry. As long as the required energy-efficiency level is attained, ship designers and builders would be free to use the most cost-efficient solutions for the ship to comply with the regulations. The reduction level in the first phase is set to 10% and will be tightened every five years to keep pace with technological developments of new efficiency and reduction measures. IMO has set reduction rates until the period 2025 to 2030 when a 30% reduction is mandated for most ship types calculated from a baseline representing the average efficiency for ships built between 1999 and 2009. The EEDI is developed for the larger and most energy intensive segments of the world merchant fleet and will embrace 72% of emissions from new ships covering the following ship types: oil and gas tankers, bulk carriers, general cargo and container ships. For ship types not covered by the current formula, suitable formulas will be developed in the future addressing the largest emitters first.

6 The SEEMP establishes a mechanism for a shipping company and/or a ship to improve the energy efficiency of ship operations. The SEEMP provides an approach for monitoring ship and fleet efficiency performance over time using the Energy Efficiency Operational Indicator (EEOI) as a monitoring tool and serves as a benchmark tool. The SEEMP urges the ship owner and operator at each stage of the plan to consider new technologies and practices when seeking to optimize the performance of a ship. The Second IMO GHG Study 2009 indicates that a 20% reduction on a tonne-mile basis by mainly

operational measures is possible and would be cost-effective even with higher fuel prices than those currently experienced. The SEEMP will assist the shipping industry in achieving this potential.

### **Market-based measures**

7 The Committee also held an extensive debate on how to progress the development of suitable market-based measures (MBM) for international shipping, following the submission of a comprehensive report by an Expert Group which carried a feasibility study and impact assessment of several possible market-based measures submitted by governments and observer organizations.

8 The scope of the work of the Expert Group was to evaluate the various proposals on possible MBMs, with the aim of assessing the extent to which they could assist in reducing GHG emissions from international shipping, giving priority to the maritime sectors of developing countries, least developed countries (LDCs) and Small Island Developing States (SIDS). The MBM proposals under review ranged from a contribution or levy on all CO<sub>2</sub> emissions from international shipping or only from those ships not meeting the EEDI requirement, via emission trading systems, to schemes based on a ship's actual efficiency, both by design (EEDI) and operation (EEOI).

9 The Committee agreed Terms of Reference for an intersessional meeting of the Working Group on GHG Emissions from Ships, to be held in March 2011, tasking the group with providing an opinion on the compelling need and purpose of MBMs as a possible mechanism to reduce GHG emissions from international shipping. The meeting is also tasked to further evaluating the proposed MBMs considered by the Expert Group, including the impact of the proposed MBMs on, among others, international trade, the maritime sector of developing countries, as well as the corresponding environmental benefits. A report from the intersessional group will be submitted to MEPC 62 in July 2011 enabling the Committee to make further progress in accordance with its work plan.

### **IMO's objectives at COP 16**

10 In accordance with article 59 of its constitutive Convention, IMO is recognized as the specialized agency of the United Nations in the field of international shipping and the effect of shipping on the environment and, as such, it has been entrusted by the world community to pursue safe, secure and efficient shipping on clean oceans.

11 To discharge its mandate of effectively protecting and preserving the global environment, both marine and atmospheric, the Organization will, at the Cancun Conference, seek to ensure that the community continues to entrust it with developing and enacting global regulations to control GHG emissions from ships engaged in international trade.

12 Climate change is no exception and, to this end, the Second IMO GHG Study 2009 concluding that international shipping was responsible for the emission of 870 million tonnes, or about 2.7 per cent of manmade the global emissions of CO<sub>2</sub> in 2007. However small that contribution – deriving as it does from what is globally-recognized as the most energy-efficient mode of bulk transportation – the Organization has drawn up an action plan to effectively reduce international shipping's GHG emissions even further. The plan covers the development of technical and operational measures for new and existing ships, as well as market-based instruments to, *inter alia*, act as an incentive for the shipping industry to invest in more fuel-efficient technologies, and also serve other purposes such as raising funds for climate change mitigation and adaptation activities, research and development and the offsetting of emissions.

## **Environmental track record**

13 IMO has an enviable track record of successfully addressing, resolving and promoting all issues within its competence and on its agenda. On environmental issues in particular, the Organization has performed excellently, being able to demonstrate a globally recognized contribution towards reducing pollution of the marine environment from all sources of shipping operations (oil spills, in particular) and tackling, head on, threats to the atmospheric environment, first through drastically reducing air pollutants and, now, through an impressive array of measures aiming at reducing GHG emissions from ships.

14 With the firm support of its Member Governments and all its constituents in the industry, the Organization is determined to play, responsibly and effectively, its role as the global body entrusted with the regulation of international shipping and, as far as the Copenhagen Conference is concerned, to contribute its part to the global efforts to stem climate change and global warming.

## **Concluding remarks**

15 Although international maritime transport is the most energy efficient mode of mass transport and only a modest contributor to worldwide CO<sub>2</sub> emissions (2,7% in 2007), a global approach for further improvements in energy efficiency and emission reduction is needed as sea transport is predicted to continue growing significantly in pace with world trade.

16 IMO has developed a set of robust and efficient technical and operational measures that will serve as performance standards for increased energy efficiency in international shipping and a comprehensive regulatory framework based on the Organization's extensive experience and well established policies and practices is nearing completion. The framework builds on IMO's reputable and well tested enforcement and control provisions (Flag and Port State Controls) and includes also aspects such as monitoring, verification and reporting as well as modalities for effective implementation.

17 With regard to the market-based measures, where IMO is currently working in accordance with a work plan culminating in 2011, IMO and its Member Governments, recognising that the technical and operational measures alone would not be sufficient to satisfactorily reduce the amount of GHG emissions from international shipping in view of projections for world trade and the overall reductions needed to meet the two degrees target, are determined to develop a mechanism that will enable the shipping industry to achieve the eventually agreed reduction target.

18 IMO will continue its endeavours to reduce any environmental impacts from international shipping, a transport industry that is vital to world trade and sustainable development, and keep relevant bodies of the UNFCCC informed of its achievements.

## **Action requested by AWG-LCA 13**

19 It is for the strong reasons outlined above, undeniable as they are, that IMO participates in COP 16 expecting that, as the Kyoto Conference did twelve years ago, the global community will, once again, place its confidence, for an effective contribution, from the shipping point of view, to the objectives this Conference pursues, on the Organization. Once this is done, IMO will spare no effort to do its duty within any target or timeframe the present Conference decides.

For further information on IMO's GHG work, the technical and operational reduction measures under consideration for mandatory application, and on the various market-based measures, please see the IMO website ([www.imo.org](http://www.imo.org)) and IMO's submissions to SBSTA 33 (FCCC/SBSTA/2010/MISC.14).

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