



## ***Legislative Outlook***

*Presented by  
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Chairman MEPC*



## **IMO AND THE ENVIRONMENT**

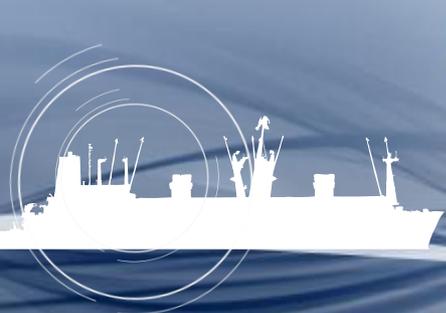
IMO is the United Nations specialized agency that develops and adopts global regulations on safety, security and the prevention and control of marine pollution from ships. IMO's 169 Member Governments are responsible for implementing and enforcing the regulations once they enter into force for the international merchant shipping fleet of some 60,000 ships (above 400 GT). IMO's vision is to reduce to the barest minimum all adverse environmental impacts from ships.



# Shipping's Environmental Credentials

Shipping – which transports 90 per cent of global trade – is, statistically, the least environmentally damaging mode of transport, when its productive value is taken into consideration. The vast quantity of grain required to make the world's daily bread, for example, could not be transported any other way than by ship. Moreover, set against land-based industry, shipping is a comparatively minor contributor, overall, to marine pollution from human activities.

While there is no doubt that the shipping industry, and IMO, still have more to do in this respect, there is, nevertheless, an impressive track record of continued environmental awareness, concern, action, response and overall success scored by the Organization and the maritime community.

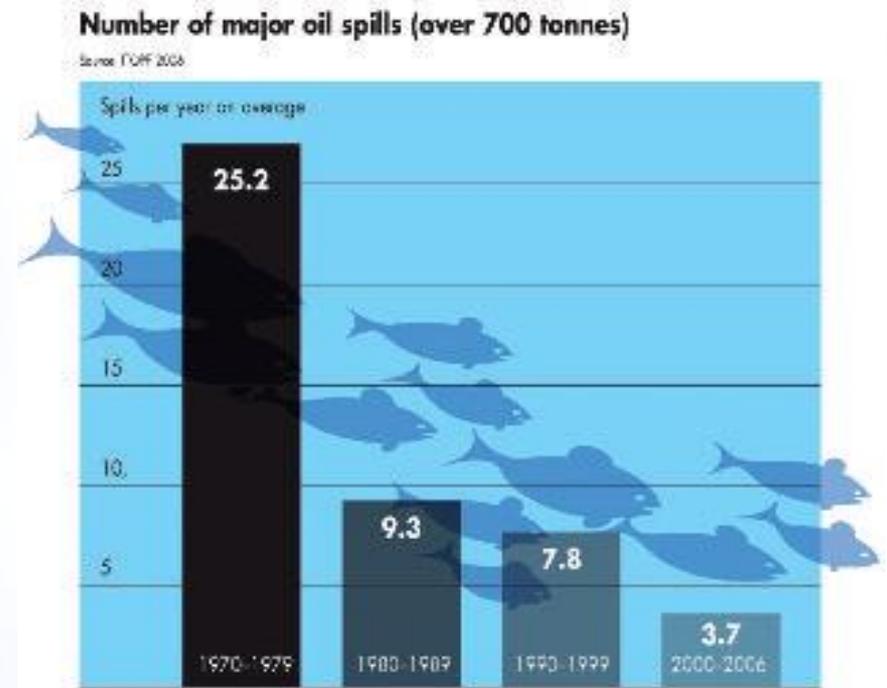


IMO's original mandate was principally concerned with maritime safety. However, as the custodian of the 1954 OILPOL Convention, the Organization, soon after it began functioning in 1959, assumed responsibility for pollution issues and subsequently has, over many years, adopted a wide range of measures to prevent and control pollution caused by ships and to mitigate the effects of any damage that may occur as a result of maritime operations and accidents.

These measures have been shown to be successful in reducing vessel sourced pollution and illustrate the commitment of the Organization and the shipping industry towards protecting the environment. Of the 51 treaty instruments IMO has adopted so far, 21 are directly environment-related or 23, if the environmental aspects of the Salvage and Wreck Removal Conventions are included.



The operational and construction regulations introduced by MARPOL, which entered into force in 1983, have been a success, with statistics from reputable industry and independent bodies showing that these regulations, along with other safety-related regulations such as the introduction of mandatory traffic separation schemes and international standards for seafarer training, have been instrumental in the continuous decline of accidental oil pollution that has taken place over the last 30 years

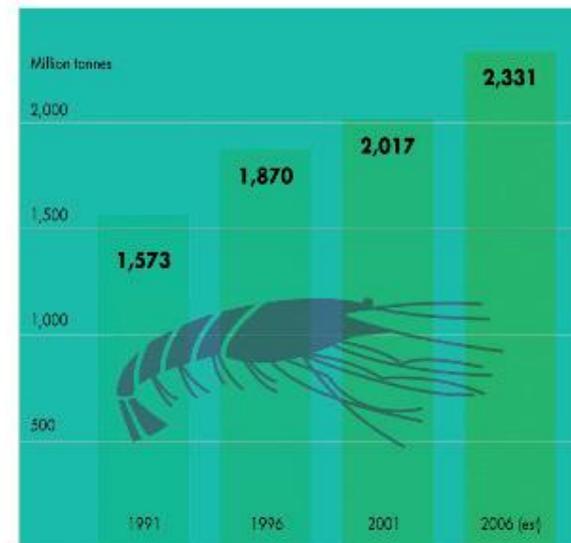


According to shipping market analysts, world seaborne trade increased by around 135 per cent between 1985 and 2006. Oil and petroleum products accounted for a significant part of this increase, rising by a similar percentage. In sharp contrast, estimates of the quantity of oil spilled in to the sea during the same period show a steady reduction by some 85 per cent. In the current decade, the average number of oil spills over 700 tonnes has shrunk from over 25 per year in the 1970s to just 3.7. One major oil company has estimated that the tankers it owns, or uses under long-term charter, spill less than one teaspoon of oil for every million gallons transported; while tanker owners take pride in statistics that show that 99.9996 per cent of all oil transported by sea is delivered safely and without impact on the marine environment.

However, in spite of best efforts, some spills continue to occur. When this happens, it is necessary to ensure that effective and Coordinated response mechanisms are in place and an adequate liability and compensation regime is available to compensate those affected.

**World seaborne trade (crude oil/oil products) tonnes**

Source: FourMays Review 2006



Over the years, the IMO has put in place a comprehensive set of regulations covering liability and compensation for damage caused by oil transported by ship, through which the shipping industry (in conjunction with oil importers) provides automatic cover of up to US\$1 billion for any single incident, regardless of fault. This tiered system of compensation includes the International Convention on Civil Liability for Oil Pollution Damage (CLC) and the International Oil Pollution

Compensation (IOPC) Funds, including the 2003 Supplementary Fund, which collectively provide more coverage than ever before to those affected by oil spills. The International Convention on Civil Liability for Bunker Oil Pollution Damage entered into force in November 2007, extending the liability and compensation regimes to Damage caused by spills of oil when carried as fuel in ships' bunkers.

The International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996, once in force, will serve to complete this framework by establishing a regime to cover spills involving hazardous and noxious substances.

A Protocol aimed at bringing the HNS Convention into force is set to be adopted in 2010.



When ships reach the end of their working lives, recycling is undoubtedly the most environmentally friendly way to dispose of them. Many of the components and much of the steel is re-used in the countries where the ships are dismantled, in new ships, in agriculture, in hospitals, at homes, and in other products. However, there are concerns about environmental and working conditions in ship recycling yards

In May 2009, IMO adopted the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009. The new Convention balances safety and environmental concerns with the commercial requirements of seaborne trade and the ship recycling industry. In developing the new convention, IMO was guided by pragmatism so that the operational efficiency, on which ship recycling facilities rely, was not unduly compromised



In the past few decades, the enforcement of when and where to dispose of all types of wastes produced on a ship's voyage has become better regulated through MARPOL Annex V (Garbage). The requirements are much stricter in a number of "Special Areas" but perhaps the most important feature of the Annex is the complete ban imposed on the dumping into the sea of all forms of plastic. However, although Annex V obliges Governments to ensure the provision of facilities at all ports and terminals for the reception of garbage, more work needs to be done to ensure the availability of adequate reception facilities in every port. IMO has instigated an "Action Plan on tackling the inadequacy of port reception facilities", and intends to complete this work during 2010.



# Control of Harmful Anti-fouling Systems

Ships' hulls need to be kept smooth from marine growth to ensure maximum performance and full efficiency. In the past, many of the coatings used were themselves harmful to the marine environment and more benign coatings needed to be developed to replace them. The IMO's International Convention on the Control of Harmful Anti-fouling Systems on Ships, which entered into force in September 2008, prohibits the use of harmful organotins in antifouling paints used on ships and establishes a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems.



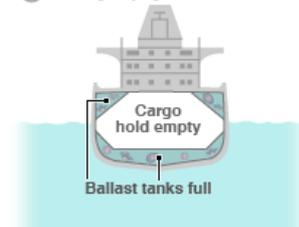
In 2004, IMO adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, which, when in force, will require all ships to carry out ballast water management procedures to a given standard. IMO and the industry are working together to ensure that these procedures will not have an adverse effect on the safety of the vessel, and will not solve one environmental problem by creating another. Already, a number of ballast water management systems have been approved as meeting the Convention standards.

## BALLAST WATER CYCLE

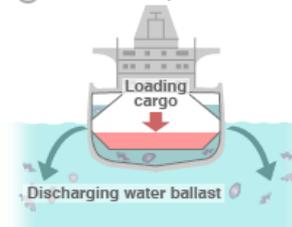
① At source port



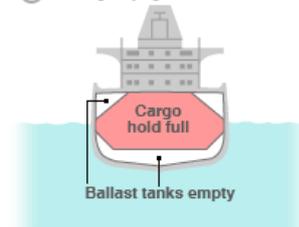
② During voyage



③ At destination port



④ During voyage

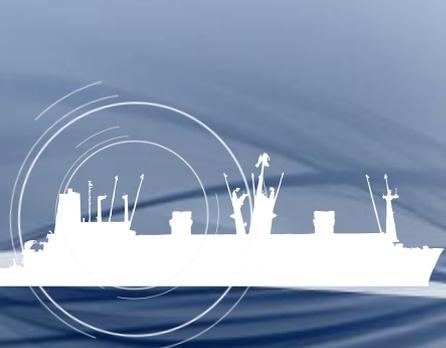


SOURCE: GloBallast



By addressing the risk posed by invasive aquatic species in ships' ballast water, IMO has only dealt with one of the major pathways of species movement. The other major pathway is bio fouling of ships, i.e. the undesirable accumulation of micro-organisms, plants and animals on submerged structures. A single fertile fouling organism has the potential to release many thousands of eggs, spores or larvae into the water with the capacity to found new populations. The Anti-fouling Convention also does not directly address the issue of transfer of species.

Bio fouling introductions are common to all types of vessel, from small yachts, international fishing vessels, and large trading vessels, through to barges and mobile drilling rigs. Evidence suggests that in some regions more than 50% of invasive aquatic species introductions have occurred through bio fouling. IMO has responded to this challenge by initiating the development of international measures for minimizing the translocation of invasive aquatic species through bio fouling of ships and, as the body of knowledge on the potential for harmful effects of bio fouling of ships continues to expand, IMO remains committed to identifying the most appropriate mechanisms to address this issue in a proactive and global manner.



While always advocating a global approach, the IMO nevertheless recognises that some areas need additional protection and the MARPOL Convention defines certain sea areas as “Special Areas” in which the adoption of enhanced special mandatory measures for the prevention of pollution is required.

Outside the MARPOL regulations, IMO has adopted Guidelines for the designation of Particularly Sensitive Sea Areas (PSSAs), which are deemed to require a higher degree of protection because of their particular significance for ecological, socioeconomic or scientific reasons, and because they may be vulnerable to damage by international maritime activities. To date, twelve PSSAs have been declared by IMO



Although air pollution from ships does not have the direct cause and effect associated with, for example, an oil spill incident, it causes a cumulative effect that contributes to the overall air quality problems encountered by populations in many coastal areas, and also affects the natural environment, such as through acid rain.

MARPOL Annex VI, adopted in 1997, limits the main air pollutants contained in ships exhaust gas, including sulphur oxides (SOX) and nitrous oxides (NOX), and prohibits deliberate emissions of ozone depleting substances. MARPOL Annex VI also regulates shipboard incineration, and the emissions of volatile organic compounds from tankers.

In October 2008, IMO adopted the revised MARPOL Annex VI and the NOX Technical Code 2008, with an entry into force date of 1 July 2010.



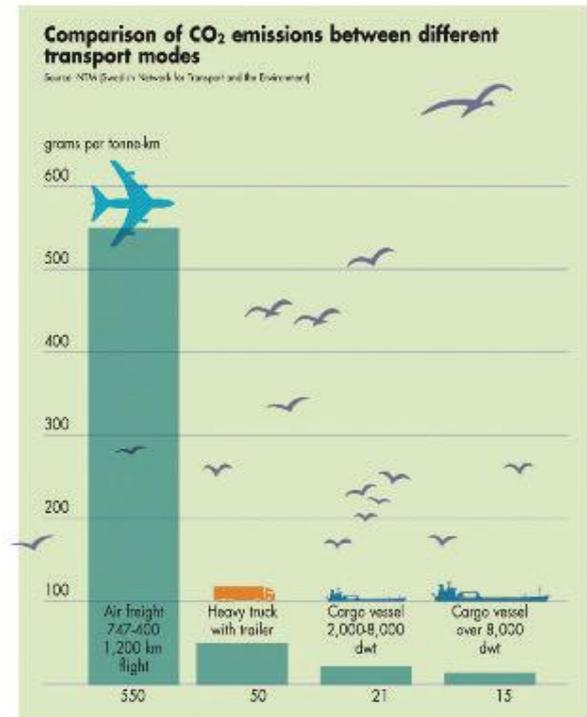
# The Control of Green House Gas Emissions

IMO recognizes the increasing importance and urgency to control greenhouse gas emissions worldwide and is determined to be in the frontline of the global campaign to tackle this defining challenge of our age.

According to the Second IMO GHG Study 2009, the most comprehensive and authoritative assessment of the level of greenhouse gas emitted by ships, as well as the potential for reduction, international shipping was estimated to have emitted 870 million tonnes, or about 2.7% of the global emissions of CO<sub>2</sub> in 2007.



In July 2009, IMO's Marine Environment Protection Committee (MEPC), at its 59th session, finalized a package of technical and operational measures to reduce GHG emissions from international shipping, aimed at improving the energy efficiency for new ships through improved design and propulsion technologies and for all ships, new and existing, primarily through improved operational practices.

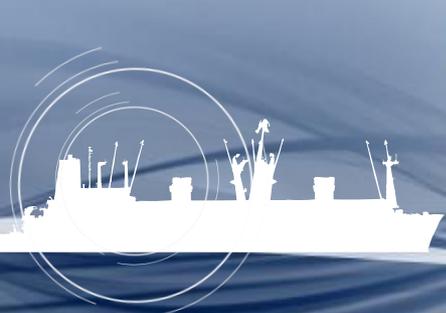


However, the technical and operational measures will not be sufficient to satisfactorily reduce the amount of GHG emissions from international shipping in view of the growth projections of human population and world trade. Therefore, market based mechanisms have also been considered and would serve two main purposes: off-setting of growing ship emissions and providing a fiscal incentive for the maritime industry to invest in more fuel efficient ships and technologies and to operate ships in a more energy efficient manner. Work on these measures will continue at forthcoming meetings of the MEPC.



The Member States of IMO have made great efforts to develop and adopt measures to protect the environment from pollution by ships.

There remains, however, work to be done to ensure full implementation by flag and port States and to increase the pace of ratification of IMO's environmental Conventions in particular, the Ballast Water Management Convention, the Ship Recycling Convention and the HNS Convention. Ultimately, IMO, its Member States and the shipping industry must all work together to strive towards IMO's vision to eliminate all adverse environmental impacts from ships.



Thank  
You

