World Maritime Day 2007

IMO's response to current environmental challenges

A message from the Secretary-General of the International Maritime Organization, Mr. Efthimios E. Mitropoulos

There is today, quite rightly, a growing concern for our environment and a genuine fear that, if we do not change our ways right now, the damage we will inflict on our planet will render it incapable of sustaining – for future generations – the economy we have grown accustomed to over the better part of the past two centuries.

The environmental credentials of every country and industry are now under sharper scrutiny than ever before. The pressure is mounting for every potential polluter, every user of energy and every conspicuous contributor to climate change and global warming to clean up their act and adopt greener practices. The transport industry is no exception to such scrutiny and pressure; indeed, it seems to attract more than its fair share of attention in this regard – certainly enough to ensure that environmental concerns are now high on the agenda in all of its sectors.

Statistics reveal that, of all modes of transport, shipping is the least environmentally damaging 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. Both the economic and environmental costs of using, say, airfreight, would be exorbitantly high. 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 and industry, which cannot go unnoticed.

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.

The most serious problem at the time IMO began to address environmental issues was the spillage of oil into the seas, either through accidents or poor operating practices. To address these effectively, the Organization embarked on a multi-faceted, ambitious programme of work, which, spurred by some spectacular oil pollution incidents, culminated successfully in the adoption, in 1973, of the **International Convention for the Prevention of Pollution from Ships**, now known universally as MARPOL. Not only did this introduce a number of radical new concepts, such as a requirement for new oil tankers of 70,000 tons deadweight and above to be fitted with segregated ballast tanks, so as to obviate the need to carry ballast water in cargo tanks, it also enshrined the best of existing industry practices, such as the "load-on-top" system which had been developed by the oil industry during the 1960s, precisely to prevent the discharge of oil into the sea with ballast water.

More than 30 years later, albeit much expanded, amended and updated, the MARPOL Convention remains the most important international convention covering the prevention of pollution by ships, whether from operational or accidental causes. Today, MARPOL has six separate annexes, which set out regulations dealing with pollution from ships by oil; by noxious liquid substances carried in bulk; harmful substances carried by sea in packaged form; sewage, garbage; and the prevention of air pollution from ships. There can be no doubt that, in conjunction with a variety of other measures, MARPOL has laid the foundation for substantial and continued reductions in pollution from ships and, this, despite a massive increase in world seaborne trade.

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 during the same period show a steady reduction by some 85 per cent. Figures reveal that, despite the rare major accident, which can cause a spike in the annual statistics, the overall trend demonstrates a continuing improvement, both in the number of oil spills and quantity of oil spilled each year.

In the current decade, the average number of oil spills over 700 tonnes has shrunk from over 25 in the 1970s to just 3.7. It is interesting to note, in this context, that the biggest single "decade-to-decade" reduction was from the 1970s to the 1980s, coinciding with the adoption and entry into force of the MARPOL Convention, which is rightly credited with having had a substantial positive impact in decreasing the amount of oil that enters the sea from maritime transportation activities. One major oil company has estimated that the tankers it owns, or uses under long-term lease, 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**.

While always advocating a global approach, MARPOL, nevertheless, recognizes that some areas need protection over and above that sought under normal circumstances. To this end, it defines certain sea areas as "**Special Areas**", in which the adoption of special mandatory measures for the prevention of sea pollution is required, so that such areas are provided with a level of protection higher than elsewhere. Moreover, IMO has adopted criteria for the identification and designation of "**Particularly Sensitive Sea Areas**", which are deemed to require an even higher degree of protection because of their particular significance for ecological or socio-economic or scientific reasons, and because they may be vulnerable to damage by international maritime activities.

IMO's environmental work in recent years has covered a remarkably broad canvas, embracing everything, from the quality of our atmosphere to the microscopic aquatic life-forms that can be transported around the world in ships' ballast water and deposited in alien local ecosystems where, by disrupting their delicate balance, they can cause immense damage.

IMO's work on this latter topic led to the adoption, in February 2004, of the **Ballast Water Management Convention**, and is still continuing today. Another significant milestone for the protection of the marine environment was reached in March 2006, with the entry into force of the **1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter**, which represents a major change of approach to the question of how to regulate the use of the sea as a depository for waste materials in that, in essence, dumping is now prohibited, except for materials on an approved list.

Other IMO Conventions deal with issues such as the use of **harmful anti-fouling paint on ships' hulls; preparedness, response and co-operation** in tackling pollution from oil and from hazardous and noxious substances; and the right of States to **intervene on the high seas** to prevent, mitigate or eliminate danger to their coastlines or related interests from pollution following a maritime casualty.

The issue of **ship recycling** has also become a growing concern, not only from the environmental point of view but also with regard to the occupational health and safety of workers in the industry. IMO is currently developing a new mandatory instrument providing legally binding and globally applicable ship-recycling regulations for international shipping and recycling facilities, which is due for adoption in the 2008-2009 biennium. And, in May of this year, IMO adopted a new Convention on the **removal of wrecks** that may present either a hazard to navigation or a threat to the marine and coastal environments, or both.

Although IMO's traditional role is dealing with shipping and shipping-related accidents, we have, from time-to-time, also become involved in the aftermath of marine pollution incidents emanating from sources outside shipping operations. There is sound basis in international law for our participation in the response to such incidents, through such treaties as the **UN Convention on the Law of the Sea** and the **International Convention on Oil Pollution Preparedness, Response and Co-operation**. Last year, for example, we helped to draw up and implement an action plan to assist the authorities in Lebanon with the clean-up of coastal oil pollution following an air-strike on a refinery. The plan was agreed at an international meeting convened by IMO and the United Nations Environment Programme (UNEP) in Piraeus, Greece, and its execution was supervised by the IMO-administered Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) and the Minister of the Environment of Lebanon.

But perhaps the most significant threat to our environment today concerns **atmospheric pollution**. And, once again, although the shipping industry is but a small contributor to the total volume of gas emissions – compared to road vehicles, aviation and public utilities, such as power stations – atmospheric pollution from ships has, nevertheless, been significantly reduced in the last decade and IMO continues to work towards further reductions as the evidence mounts and the world becomes more aware and more concerned about the further damage that might be caused if, from our various perspectives as Governments, industry and individuals, we do not address the challenges posed by air pollution, global warming and climate change.

A good deal has already been done by the shipping sector. **Annex VI of MARPOL**, for example, set, for the first time, **limits on sulphur oxide (SOx)** and **nitrogen oxide (NOx)** emissions from ship exhausts; prohibited deliberate emissions of ozone-depleting substances; and put a global cap on the sulphur content of fuel oil. It also contains provisions allowing for special **SOx Emission Control Areas** to be established (such as, for example, those agreed for the Baltic and North Sea areas), with more stringent controls on sulphur emissions. However, although the Annex entered into force in 2005, it had actually been adopted as long ago as 1997. As a result, a comprehensive review of its provisions, taking into account experience gained thus far in its implementation, as well as improvements in engine and fuel technology, is currently underway at IMO.

Whether we like it or not, there is no avoiding the fact that the modern world is utterly dependent on motorized transport systems that run largely on fossil fuels. Moreover, it is also a fact of life that the use of fossil fuels carries an environmental burden. An engine burning fossil fuel will emit a quantity of so-called **greenhouse gases (GHGs)**, principally CO_2, and these emissions are now widely accepted as being significant contributory factors towards global warming and climate change.

Although no mandatory instrument has yet been adopted by IMO to cover the emission of GHGs from ships, the Organization has given ample consideration to the matter, leading to the adoption, in December 2003, of an Assembly resolution on the reduction of such emissions from ships.

The most comprehensive assessment to date of the contribution made by international shipping to climate change is contained in the IMO Study on GHG Emissions from Ships published in June 2000. This study identified a number of areas in which there was considerable potential for the further reduction of CO_2 emissions from ships, such as optimization of hull shape, hull maintenance, propeller design and maintenance, fuel choices, machinery monitoring, ship-routeing considerations, and optimizing vessel trim, engine performance, propeller pitch and rudder angles. The study cautioned, however, that if none of the measures are applied, the projected annual growth in the world fleet size could lead to an increase in fuel consumption of some 72 per cent between the years 2000 and 2020.

This study is now being updated, and a work plan with a timetable has been adopted for IMO's future work on the reduction of GHGs from ships, in which the Organization intends to maintain its leading position, co-operating closely with international shipping and with other relevant UN bodies, to avoid unilateral action either on a global, regional or national level.

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IMO has, over the 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. These are all positive proof of the firm determination of Governments and the industry to reduce, to the barest minimum, the impact that shipping may have on our fragile environment. There remain, however, serious concerns at the slow pace of ratification of IMO's environmental conventions. It took almost eight years, for example, for MARPOL's Annex VI to reach its entry into force criteria – by which time, as mentioned earlier, it needed to undergo a substantial review; and neither the 2004 Ballast Water Management Convention nor the 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships are yet in force.

My concerns in this area are threefold: **first**, that by not bringing IMO instruments into force at a reasonable time after their adoption, their implementation is delayed, thereby depriving the environment of their beneficial effects; **second**, that any further delay in tackling the issues regulated by such instruments may spur unilateral or regional measures by individual countries or groups of countries, with all the attendant negative repercussions such actions entail; and, **third**, that any prolongation of the situation may lead to ambiguities, which, in the final analysis, may count against seafarers, the maritime industry and the environment.

The urgent need to ratify, as soon as possible, not only IMO's environmental but, indeed, all outstanding Conventions adopted under its auspices, should be promptly recognized by all the parties concerned. After all, it was thanks to the strenuous and concerted efforts of the same Governments, working together under the aegis of the Organization, over long periods of time, that these Conventions were developed and adopted in the first place.

But, even more than this, I do not wish to see the maritime community stand accused of failing in its duty towards the protection and preservation of this beautiful planet, which, it seems to me, we have neglected for too long.

IMO's work in this respect must be part of a broad-based effort in which everyone has a responsibility and everyone has a role to play, a concept precisely reflected in the well-known environmental call to action "think globally – act locally". And, in the long term, society will need to address its own priorities and understand that nothing comes for nothing and that there will be prices and sacrifices that we must be prepared to pay and make, for the greater good of all.

The decision of the IMO Council to select environmental issues to take centre stage this year, as the theme for World Maritime Day, was timely and appropriate. The theme will play centrepiece in a host of activities and initiatives, which will form part of a concerted action plan that we have been undertaking to educate people; increase their awareness about the true, and deteriorating, state of the planet; and help us all to become responsible citizens, in its fullest sense.

It is only very recently that mankind has begun to understand that the planet that sustains us and gives us life is a fragile entity and that our actions can, and do, have massive repercussions. That the earth and its resources do not belong to us and are not ours to squander without thought for the future is not proving an easy lesson for us to learn, but we are gradually succeeding – or, at least, waking up to the enormity of the task that confronts us.