SHIPPING’S CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

ECONOMIC: FACILITATING WORLD TRADE AND PROSPERITY

**PREDICTED INCREASES IN WORLD SEABORNE TRADE, GDP AND POPULATION**

<table>
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</thead>
<tbody>
<tr>
<td>World seaborne trade carried in tonnes (billions)</td>
<td>6.0</td>
<td>12.0</td>
<td>18.0</td>
<td>24.0</td>
<td>30.0</td>
<td>36.0</td>
<td>42.0</td>
</tr>
<tr>
<td>World economy GDP in US $ (trillions)</td>
<td>60.0</td>
<td>120.0</td>
<td>180.0</td>
<td>240.0</td>
<td>300.0</td>
<td>360.0</td>
<td>420.0</td>
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<tr>
<td>World population (billions)</td>
<td>6.0</td>
<td>12.0</td>
<td>18.0</td>
<td>24.0</td>
<td>30.0</td>
<td>36.0</td>
<td>42.0</td>
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</tbody>
</table>

Sources:
- World seaborne trade – IHS Global Insight
- World economy – OECD Statistics
- World population – UN Department for Economic and Social Affairs, Population Division

SOCIAL: A GLOBAL WORKFORCE PROTECTED BY IMO AND ILO STANDARDS

**GLOBAL SEAFARER SUPPLY BY BROAD GEOGRAPHICAL AREA**

<table>
<thead>
<tr>
<th>Area</th>
<th>Officers</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Countries</td>
<td>184,000</td>
<td>29,4%</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>143,000</td>
<td>20,3%</td>
</tr>
<tr>
<td>Africa / Latin America</td>
<td>127,000</td>
<td>16,5%</td>
</tr>
<tr>
<td>East Asia</td>
<td>103,000</td>
<td>14,5%</td>
</tr>
<tr>
<td>Indian Sub Continent</td>
<td>184,000</td>
<td>29,5%</td>
</tr>
</tbody>
</table>

Source: ISF and BIMCO estimates, 2010

ENVIRONMENTAL: A CARBON FRIENDLY FORM OF COMMERCIAL TRANSPORT

**COMPARISON OF CO₂ EMISSIONS BETWEEN MODES OF TRANSPORT**

<table>
<thead>
<tr>
<th>Mode</th>
<th>CO₂ Emissions (g/km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo vessel over 8,000 dwt</td>
<td>15</td>
</tr>
<tr>
<td>Cargo vessel 2,000-8,000 dwt</td>
<td>21</td>
</tr>
<tr>
<td>Heavy truck with trailer</td>
<td>50</td>
</tr>
<tr>
<td>Air freight 747-400 1,200km flight</td>
<td>540</td>
</tr>
</tbody>
</table>

Source: NTM, Sweden
SUSTAINABLE SHIPPING IS VITAL TO SUSTAINABLE DEVELOPMENT

THE THEME FOR INTERNATIONAL MARITIME ORGANIZATION (IMO) WORLD MARITIME DAY 2013 IS ‘SUSTAINABLE DEVELOPMENT: IMO’S CONTRIBUTION BEYOND RIO+20’

In June 2012, world leaders attending the United Nations ‘Rio + 20’ Summit on Sustainable Development agreed that ‘poverty eradication is the greatest global challenge and indispensible to sustainable development’.

As a follow up to the goals agreed by the UN Summit, IMO is now committed to producing sustainable development goals for the international shipping industry, an objective which ICS fully supports.

The international shipping industry directly facilitates the growth of world trade, economic development and the improvement of global living standards. About 90% of world trade is carried by sea. The volume of maritime trade is therefore expected to increase significantly as the world economy and population continue to expand.

Without cost efficient maritime transport, the movement of raw materials and energy in bulk to wherever they are needed, and the transport of manufactured goods and products between the continents – which is a prerequisite for growth and development – would simply not be possible.

In June 2012, in support of IMO, ICS represented the world’s shipowners at the UN Summit in Rio de Janeiro.

ICS made the case that the shipping industry is undoubtedly a driver of ‘green growth’ given its impressive environmental performance.

ICS also explained that sustainable development is dependent on the continuing cost efficiency of maritime transport, which should not be taken for granted. In particular, ICS believes that potentially expensive new regulations should not be imposed on international shipping without a full and proper cost benefit analysis.

IMO in Session in London

THE THREE Pillars OF Sustainability

Sustainable development as understood by the UN is made up of three components or ‘pillars’: environmental, social and economic which are all inextricably linked.¹

As well as being the most environmentally benign means of commercial transport (see graphs), the shipping industry offers very high employment standards compared to many shore based industries, as reflected by the recent entry into force of the ILO Maritime Labour Convention (see below) and the competitive remuneration enjoyed by seafarers, including the large number recruited from developing countries.

Maintenance of the shipping industry’s economic sustainability is also important given its vital role in transporting around 90% of world trade, upon which the functioning of the world economy, and its further development, depends.

Between now and 2025, the shipping industry expects to invest hundreds of billions of dollars in delivering further environmental improvements. This is to comply with a range of new environmental standards recently adopted by IMO. These new IMO standards are supported by ICS on the understanding that they will be properly enforced on a global basis in order to maintain fair competition and the level playing field which shipping requires to operate efficiently.

¹ See UN Assembly Resolution A/RES/66/288.
ENVIRONMENTAL SUSTAINABILITY

The shipping industry, as represented by ICS, is committed to the continuous improvement of its environmental performance within the successful framework provided by the IMO MARPOL Convention and other IMO instruments. For example, although operations at sea involve a high degree of physical risk, the number of major oil spills caused by shipping reduced dramatically during the last decade. This was due to a combination of improved industry best practices and the successful global enforcement of IMO rules.

REDUCING CO₂ EMISSIONS

In response to concerns about climate change, shipping is the only major industrial sector which already has a binding global agreement in place to reduce its CO₂ emissions (the amendments to MARPOL Annex VI which entered into force worldwide in January 2013).

This includes the application of the Energy Efficiency Design Index (EEDI) to new ships and the use of Ship Energy Efficiency Management Plans (SEEMP) by existing ships. With the impetus provided by this package of IMO technical and operational measures, ICS is confident that the industry can reduce its CO₂ emissions per tonne of cargo moved one kilometre by 20% by 2020, with further emission reduction going forward.

Additional information can be found at www.shippingandco2.org

In principle, ICS also supports the development of a global system of Monitoring, Reporting and Verification (MRV) of ships’ emissions, provided such a mechanism is simple to administer and developed for global application at IMO.

SWITCH TO LOW SULPHUR FUEL

To reduce the localised impact of sulphur emissions on the environment and human health, the shipping industry is in the process of switching from ‘heavy’ residual fuel oil to low sulphur fuel to comply with MARPOL Annex VI.

Although alternative means of compliance, such as Exhaust Gas Cleaning Systems or the use of LNG, may eventually be possible for some ships, the vast majority will have to use distillate, currently costing around 50% more than residual fuel but with a price differential expected to increase as its use in effect becomes mandatory.

This next stage of this process will be the enforcement of the 0.1% sulphur cap in Emission Control Areas required by MARPOL in 2015, to be followed by a global sulphur cap elsewhere of 0.5% in either 2020 or 2025.²

While the IMO agreement on sulphur is fully supported by ICS, the cost of this change to the industry after 2020 is estimated to be over US $50 billion dollars a year. Even if ships improve

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² Dependent on the outcome of an IMO fuel availability study, currently not scheduled to be completed until 2018, although the European Union has announced that it will apply the global cap in the EEZ of EU Member States regardless of the outcome of the IMO review.
their fuel efficiency dramatically, this significant cost will need to be absorbed by shipping's customers, including those in developing countries. There is an attendant risk of modal shift, especially from short sea trades to less environmentally friendly shore transport.

**SHIP RECYCLING**

The shipping industry supports a ‘cradle to grave approach’ to sustainability. This includes support for the early entry into force of the IMO Convention for the Safe and Environmentally Sound Recycling of Ships which will help improve safety and environmental standards in ship recycling yards and impose mandatory requirements on ships, such as the maintenance of inventories of hazardous materials, from the time of their construction to their final demolition. In the meantime, ICS continues to promote the Inter-industry Guidelines on Transitional Measures for Shipowners Selling Ships for Recycling.

For more information see www.ics-shipping.org/recycling.htm

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**SOCIAL SUSTAINABILITY**

The highest priority of the international shipping industry remains the safety of life at sea. It is anticipated that the sustainable development goals developed by IMO will also address issues such as seafarer training, further improvements to navigational safety and the promotion of an effective safety culture.

ICS is committed to the continuous improvement of maritime safety and the development and updating of industry best practice as a complement to IMO regulations including the IMO SOLAS Convention, which it has been suggested should be subjected to a comprehensive review by IMO.

IMO has an especially important role to play with respect to the maintenance of the international framework for seafarer competence and certification provided by the 2010 amendments to the STCW Convention, to be fully phased-in by 2017, again with the full support of the international shipping industry.

More generally, the shipping industry provides stimulating careers and varied and well paid employment to about 1.5 million professional seafarers, two thirds of whom reside in non-OECD countries. Millions more are employed as shore staff across the world in various supporting activities.

Shipping is the only industrial sector to have a comprehensive international framework in place addressing employment standards following the entry into force of the International Labour Organization (ILO) Maritime Labour Convention on 20 August 2013.

ICS was responsible for negotiating the text on behalf of the industry with governments and its social partner, the International Transport Workers’ Federation (ITF).

The ILO MLC addresses a wide range of matters including shipping companies’ obligations regarding seafarers’ contractual arrangements, oversight of manning agencies, working hours, health and safety, crew accommodation, catering standards, and seafarers’ welfare.

For more information see www.ics-shipping.org/ilo-mlc.htm

**BALLAST WATER TREATMENT**

The shipping industry is preparing for the entry into force of the IMO Ballast Water Management Convention in order to address the potential damage to local marine ecosystems that can be caused by the unwanted transfer of invasive species. Up until around 2020, the shipping industry expects to invest over US $100 billion in order to fit the new treatment equipment that will be required. This is at a time when obtaining additional finance, especially for retrofitting, is a challenge for many shipowners.

**OTHER ENVIRONMENTAL IMPROVEMENTS**

The shipping industry is also committed to the implementation of numerous other IMO environmental requirements on such matters as: anti-fouling paints, cargoes, CFCs, garbage, NOx emissions, sewage and volatile organic compounds (VOCs) to list but a few. Many other environmental requirements are currently under development at IMO.

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3 As the International Shipping Federation (ISF), the employers’ organisation for ship operators.

4 The ILO Minimum Wage for the rating grade of “Able Seafarer” is currently US $568 a month (excluding overtime and other payments referred to in the ILO MLC). In practice, most Able Seafarers from developing nations are paid considerably more, while officers in international trades recruited from developing nations are often paid at similar rates to seafarers resident in OECD countries.
ICS believes that government regulators should give equal priority to each of the three pillars of sustainable development, including the economic. This is especially important in view of shipping’s role in the continuing spread of global prosperity and the movement of about 90% of trade in goods, energy and raw materials. Unless the industry is commercially viable it will not be able to deliver the investments in environmental and social improvements that are sought by regulators on behalf of society at large.

The vital need to protect the environment and for ships to comply fully with all new environmental regulations is fully recognised by ICS. It is nevertheless hoped that one of the outcomes of IMO’s new focus on sustainable development is that all proposals for any future IMO environmental regulation will be shown to meet existing IMO criteria for compelling need and be subjected to a full and proper cost benefit analysis, in a similar manner to proposals relating to the improvement of maritime safety.

ICS believes that the conduct by IMO of full and proper cost benefit analysis of all new regulatory proposals will ensure the delivery of sustainable development, consistent with the goals agreed by the United Nations Summit in Rio, including the best means of ensuring optimal environmental protection. Such cost benefit analyses should include comprehensive impact studies and assessments of whether effective technology is available.

While shipping’s regulators have a responsibility to protect the environment and the interests of wider society, they also need to be practical and have an understanding of the impact that their actions can have on the industry’s own long term sustainability, especially if the ‘compelling need’ for potentially expensive proposals has not been properly demonstrated.5

The international shipping industry, as represented by ICS, is committed to the delivery of further environmental and social improvements in the interests of sustainable development. But sustainable development requires a shipping industry that is economically sustainable too.

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5 As required by IMO Resolution A. 500 (XII) and many subsequent IMO Assembly Resolutions.