

Input into the UN Ocean Conference background note

Submitted by

the International Maritime Organization

II. Activities, challenges and opportunities for the implementation of SDG14

II.1 Status and trends

With international shipping transporting about 90 per cent of global trade to peoples and communities all over the world, shipping is the most efficient and cost-effective method of international transportation for most goods. The world relies on a safe, secure and efficient international shipping industry – and this is provided by the regulatory framework developed and maintained by IMO. Measures cover all aspects of international shipping – including ship design, construction, equipment, manning, operation and disposal – to ensure that this vital sector for remains safe, environmentally sound, energy efficient and secure.

Shipping is an essential component of any programme for future sustainable economic growth, contributing to all three pillars of sustainable development. Through IMO, the Organization's Member States, civil society and the shipping industry are already working together to ensure a continued and strengthened contribution towards a green economy and growth in a sustainable manner. The promotion of sustainable shipping and sustainable maritime development is, therefore, one of the major priorities of IMO. Energy efficiency, new technology and innovation, maritime education and training, maritime security, maritime traffic management and the development of the maritime infrastructure: the development and implementation, through IMO, of global standards covering these and other issues will underpin IMO's commitment to provide the institutional framework necessary for a green and sustainable global maritime transportation system. In this regard, IMO has adopted some 50 conventions and protocols, as well as more than 1000 codes and recommendations concerning maritime security, prevention of pollution and related matters. In the development of this regulatory framework, Member States and various organizations, including non-governmental organizations in consultative status contribute to the work of the various IMO organs through the provision of expert technical and scientific advice and information.

IMO contributed to the preparation and delivery of the 2017 Ocean Conference through the Co-hosts' Advisory Group, and is continuing this commitment for the 2020 Conference by supporting the co-hosts, Kenya and Portugal.

For proper and wider dissemination of maritime-related knowledge, IMO has established the World Maritime University (WMU) in Sweden as a postgraduate maritime university as well as the International Maritime Law Institute (IMLI) in Malta. Hereinafter, "IMO" may include its affiliated institutions, in particular WMU, which has its Ocean Institute that can further contribute to SDG 14.

II.2 Challenges and Opportunities (by SDG target)

SDG 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

(Indicator 14.1.1: Index of coastal eutrophication and floating plastic debris density)

In 2018, IMO adopted an Action Plan to address marine plastic litter from ships (resolution MEPC.310(73)). The Action Plan builds on, and aims to reinforce, inter alia, the regulatory framework put in place by MARPOL Annex V and the London Convention and Protocol, as

well as relevant work of other international organizations, in particular FAO and United Nations Environment Program (UN Environment), and existing cooperation mechanisms, including the Joint FAO/ILO/IMO Ad Hoc Working Group on IUU and related matters, GESAMP and the Global Partnership for Marine Litter.

In 2016, the LC/LP governing bodies continued their discussions to address marine litter, in particular from permitted wastes described in the study entitled Review of marine litter in relation to the various waste streams under the London Convention and Protocol, commissioned by the Secretariat, and adopted a recommendation to encourage action to combat marine litter (LC 38/16, paragraphs 9.23 to 9.31, and annex 8). This was followed by a statement of concern on the disposal of fibre-reinforced plastic (fibreglass) vessels, issued by the Scientific Groups at their joint session in 2018, and endorsed by the governing bodies later the same year.

SDG 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

(Indicator 14.2.1: Proportion of national exclusive economic zones managed using ecosystem-based approaches)

IMO contributes to the conservation and sustainable use of oceans and their resources by developing and adopting international law. Under the United Nations Convention on the Law of the Sea (UNCLOS), IMO is the competent international authority on preventing pollution from dumping (UNCLOS article 210) and pollution from vessels (UNCLOS article 211), and on ensuring compensation for damage caused by pollution (UNCLOS article 235).

IMO works to ensure shipping takes place on healthy seas, through its international treaties, guidelines and recommendations. There have been marked successes, including a sustained reduction in major oil spills from ships over the past five decades. Effective systems for preparedness and response if there is an incident have been created, with support from IMO and industry partners. There is a comprehensive mechanism in place for providing compensation to those affected.

The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine and atmospheric environment by ships from operational or accidental causes.

IMO's conventions and other instruments contribute to the reduction of shipping-related pollution in the wider oceans and in ports and coastal regions. By addressing pollution and other negative impacts of shipping.

MARPOL recognizes the need for more stringent requirements to manage and protect so-called Special Areas (including the Mediterranean Sea, Baltic Sea, Black Sea and Red Sea areas, the Southern South Africa waters and the Western European waters) due to their ecology and their sea traffic.

IMO also designates Particularly Sensitive Sea Areas (PSSAs), which are subject to associated protective measures such as mandatory ship-routeing systems (see below).

In addition, measures such as ship routeing, including areas to be avoided, contribute to the sustainable management of activities in the ocean.

SDG14.3. Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

(Indicator 14.3.1: Average marine acidity (pH) measured at agreed suite of representative sampling stations)

IMO 2020¹ will reduce significantly the sulphur content in ship's fuel oil. The new sulphur limit introduced by IMO, which comes into effect, 1 January 2020, will reduce from 3.5% to 0.5% the Sulphur permitted in ship's fuel oil. This allows 77% drop in overall Sox emissions from ships, with an annual reduction of approximately 8.5 million metric tonnes of SOx.

The international treaty regime known as the London Protocol and London Convention (LP/LC) provide a global, transparent control and regulatory mechanism for protecting the marine environment from all sources of pollution. They promote a balance between marine environment protection and measures intended to address climate change. The London Convention/Protocol contain measures to regulate carbon capture and storage beneath the seabed to mitigate the impacts of increasing concentrations of CO₂ in the atmosphere, and to regulate ocean fertilization and other marine geoengineering activities that have the potential for widespread, long-lasting or severe effects on the marine environment.

Since 2006, the LP, as the newer treaty on the prevention of marine pollution, has provided a basis in international environmental law to allow CO₂ storage beneath the seabed when it is safe to do so, and to regulate the injection of CO₂ waste streams into sub-seabed geological formations for permanent isolation. The LP prohibits the export of wastes or other matter for dumping in the marine environment. However, in 2009, Parties to the LP agreed an amendment to allow sub-seabed geological formations for sequestration projects to be shared across national boundaries – effectively allowing CO₂ streams to be exported for CCS purposes (provided that the protection standards of all other LP requirements have been met).

The LP defines “marine geoengineering” as a “deliberate intervention in the marine environment to manipulate natural processes, including to counteract anthropogenic climate change and/or its impacts, and that has the potential to result in deleterious effects, especially where those effects may be widespread, long-lasting or severe.”

Ocean fertilization is one such technique. It includes any activity undertaken by people with the principal intention of stimulating ocean primary production (increase in phytoplankton biomass).

SDG14.4. By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

(Indicator 14.4.1: Proportion of fish stocks within biologically sustainable levels)

The Cape Town Agreement, adopted in 2012, builds on the earlier treaties and will provide the global regime needed for safety of fishing vessels, alongside the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995 (1995 STCW-F Convention), which is already in force. The Cape Town Agreement includes

¹ MARPOL Annex VI regulation 14, introduces the 0.50% Sulphur limit from 1 January 2020. Amendments to MARPOL Annex VI (Prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship), enter into force from 1 March 2020 (MEPC.305(73)).

mandatory safety measures for fishing vessels of 24 m in length and over. It covers key parameters such as stability and associated seaworthiness, machinery and electrical installations, life-saving appliances, communications equipment, fire protection and fishing vessel construction. Although adopted in 2012, it will only enter into force after at least 22 States, with an aggregate 3,600 fishing vessels of 24 m in length and over, have expressed their consent to be bound by it.

Entry into force of 2012 Cape Town Agreement would regulate the international fishing industry, including related surveys and certification, and make it much more difficult for IUU fishing to operate.

SDG14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

(Indicator 14.5.1: Coverage of protected areas in relation to marine areas)

To further protect areas that might be particularly vulnerable to the impacts from international shipping, IMO has several Area Based Management Tools within its regulatory framework. These include, in particular:

- Special Areas and Emission Control Areas, under MARPOL²; and
- Particularly Sensitive Sea Areas (PSSAs), based on UNCLOS and IMO's resolutions, which can in principle incorporate any IMO measure that it has at its disposal to protect the marine environment³.

To date, IMO has designated 19 Special Areas under Annexes I to V of MARPOL, and four Emission Control Areas. In addition, 15 PSSAs, one of which has been extended twice.

These processes have not been developed or implemented in isolation. For example, the PSSA process has many similarities to the EBSA process and criteria when identifying areas, and there are also strong links and continuous dialogue with the UNESCO World Heritage Centre Marine Programme.

These measures are effective because they, when a vulnerable area has been identified, regulate the specific activity, in this case international shipping, through a carefully crafted regulatory regime, ensuring a balance between the delivery of essential goods and world trade, and with the protection of the marine environment and sustainable development.

Designating Special Areas and PSSAs fully supports the SDG 14 target to increase coverage of marine protected areas.

A full list of PSSA and Special Areas under MARPOL can be found at:

<http://www.imo.org/en/OurWork/Environment/PSSAs/Pages/Default.aspx> and

<http://www.imo.org/en/OurWork/Environment/SpecialAreasUnderMARPOL/Pages/Default.aspx>

² The identification and designation of such areas is supported by the 2013 Guidelines for the designation of Special Areas under MARPOL (IMO Assembly resolution A.1087(28)).

³ The identification and designation of such areas is supported by the 2005 Revised Guidelines for the identification and designation of PSSAs (IMO Assembly resolution A.982(24) and as amended by MEPC.267(68))

SDG14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

(Indicator 14.7.1: Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries)

Maritime transport and seaborne trade are essential to sustainable development. IMO addresses the special shipping needs of SIDS and LDCs, helping to implement the SAMOA pathway as the blueprint of the 2030 Agenda for Sustainable Development. IMO provides support to these unique and particularly vulnerable Member States through its integrated technical cooperation programme, driving sustainability and improving accessibility. More recently, assistance has focused on the benefits and requirements of the London Protocol and the Cape Town Agreement.

SDG14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

(Indicator 14.a.1: Proportion of total research budget allocated to research in the field of marine technology)

For parts of its scientific needs, IMO relies on the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), which is an advisory body, established in 1969, that advises the UN system on the scientific aspects of marine environmental protection. At present GESAMP is jointly sponsored by nine UN organizations with responsibilities relating to the marine environment (IAEA, IMO, FAO, UN, UNDP, UNESCO-IOC, UNEP, UNIDO, WMO), and they utilize GESAMP as a mechanism for coordination and collaboration among them. GESAMP functions are to conduct and support marine environmental assessments, to undertake in-depth studies, analyses, and reviews of specific topics, and to identify emerging issues regarding the state of the marine environment. GESAMP itself today consists of 15 experts, drawn from a wide range of relevant disciplines, who act in an independent and individual capacity. Studies and assessments are usually carried out by dedicated working groups, most of whose members are not sitting members of GESAMP but part of the broader GESAMP network. Through a well-established system of internal and external peer review, GESAMP ensures scientific credibility, transparency and independency of the advice it gives to the sponsoring organizations.

The IMO utilises GESAMP as part of their regulatory mechanism, through two standing working groups (WG 1 and WG 34), which sets it slightly apart from the other sponsoring organizations. In addition, GESAMP provides advice to the LC/LP (marine geoengineering and impacts on wastes from mining) and to IMO and FAO on sea-based sources of marine litter.

IMO is the lead or co-lead in 6 of the 9 current GESAMP working groups, and the groups has played a crucial part in much of IMO's work throughout the last 50 years. IMO therefore believe that GESAMP continues to provide significant, authoritative and independent advice on the scientific aspects of marine environmental protection in a cost-effective manner to the wider United Nations system. For IMO, GESAMP undoubtedly benefits the Organization's objectives

and we believe that a strong role for GESAMP in the implementation of SDG 14 will be beneficial for all UN entities and other stakeholders.

Both MEPC and the governing bodies of the London Convention and Protocol have noted the Decade and the importance of this initiative to the work of IMO, and have requested the Secretariat to continue to support the preparation of the Decade.

IMO has, since the initiation of the Decade preparations, expressed its strong support for the Decade, and willingness to work with IOC both in its preparation phase and implementation and will continue to actively participate, through bilateral cooperation with IOC of UNESCO as well as through UN-Oceans and GESAMP.

SDG14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want.

(Indicator 14.c.1: Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources)

Under the United Nations Convention on the Law of the Sea (UNCLOS), IMO is the competent international authority on preventing pollution from dumping at sea (UNCLOS article 210) and pollution from vessels (UNCLOS article 211), and on ensuring compensation for damage caused by pollution (UNCLOS article 235).

Up to date information on the status of IMO Conventions can be found at:

<http://www.imo.org/en/About/Conventions/StatusOfConventions/Pages/Default.aspx>

III. Scaling up ocean action based on science and innovation

Prevention of pollution by oil

Annex I to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL) covers prevention of pollution by oil from operational measures as well as from accidental discharges by ships.

As part of the global effort to reduce oil inputs into the marine environment from ships and other sea-based activities, an independent detailed assessment of inputs from the various sources is periodically required, to test the efficacy of regulations and to facilitate ecological risk assessments of oil and its components in marine ecosystems, in this regard, at the request of IMO, the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) established a Working Group, which, in 2007, produced a report titled “Estimates of Oil Entering the Marine Environment from Sea-based Activities” . The report addressed the methods that can be used for making estimates of oil inputs to the marine environment from shipping and other sea-based activities and the difficulties and uncertainties involved. It also provided updated estimates of inputs.

Control of pollution by noxious liquid substances in bulk

The control of pollution by noxious liquid substances transported in bulk by ships is regulated through MARPOL Annex II. The evaluation of the hazards to the environment and human health of noxious liquid substances is conducted, at the request of IMO, by GESAMP Working Group 1, with around 900 hazard profiles currently on record. The hazard profile contains a unique fingerprint of each substance, providing information on 13 separate human health, environmental, and physico-chemical hazard criteria. On the basis of the GESAMP hazard profile and other properties, the carriage requirements for the substance when carried on a ship are subsequently assigned by IMO.

GESAMP Working Group 1 periodically reviews and updates the hazard evaluation procedure used by the Group to take into account developments in environmental science, including hazard evaluation and risk assessment of pure chemicals and mixtures.

Prevention of pollution by sewage

MARPOL Annex IV, which applies to ships, engaged in international voyages, of 400 gross tonnage and above or which are certified to carry more than 15 persons, contains a set of regulations regarding the discharge of sewage into the sea from ships, including regulations regarding the ships' equipment and systems for the control of sewage discharge, the provision of port reception facilities for sewage, and requirements for survey and certification.

In 2019, IMO's Marine Environment Protection Committee MEPC approved a new output on "Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants". In reaching its decision to approve the new output, the MEPC considered analyses of sewage treatment plant effluent tests, which suggested that the provisions of MARPOL Annex IV and the associated guidelines could be strengthened.

Prevention of pollution by garbage

Regulations on prevention of pollution by garbage from ships are set out in MARPOL Annex V. In accordance with MARPOL Annex V, the discharge into the sea of all types of garbage, including plastics, from ships is prohibited except in the case explicitly permitted under the Annex (such as food waste and other organic matter that are not harmful to the marine environment). Unless expressly provided otherwise, the provisions of Annex V apply to all ships.

Marine plastic litter

IMO's work on marine plastic litter falls under two separate but linked areas: Operational discharges from ships (MARPOL Annex V) and dumping of wastes at sea (London Convention and London Protocol). Under these treaties, discharges and dumping of plastics at sea has been banned since 1988 and 1972 respectively.

In recognizing the ongoing problem of marine plastic pollution, and as part of its commitment to support the implementation of the 2030 Agenda for Sustainable Development and in particular Sustainable Development Goal (SDG) 14 (not least target SDG 14.1, addressing marine litter/plastics), IMO adopted on 26 October 2018 its Action Plan to address marine plastic litter from ships (resolution MEPC.310(73))

The Action Plan builds on, and aims to reinforce, inter alia, the regulatory framework put in place by MARPOL Annex V and the London Convention and Protocol, as well as relevant work of other international organizations, in particular FAO and United Nations Environment Program (UN Environment), and existing cooperation mechanisms, including the Joint FAO/ILO/IMO Ad Hoc Working Group on IUU and related matters, GESAMP and the Global Partnership for Marine Litter.

As part of the Action Plan, an IMO Study on marine plastic litter from ships is to be conducted, subject to sufficient funding being provided by Member States and other stakeholders. Through the pending study, information will be gathered on the contribution of all ships to the introduction of plastics to the marine environment, as well as up to date information relating to the storage, delivery and reception of plastic waste from and collected by ships

GESAMP Working Group 43 on sea-based sources of marine litter is co-led by FAO and IMO and recently commenced its work, which aims at increasing the understanding of the relative contribution of various sea-based sources, including Abandoned, Lost, or otherwise Discarded Fishing Gear (ALDFG) and other shipping-related litter, to the total amount of litter in the marine environment.

Dumping of waste at sea

The London Convention and Protocol regulates the disposal of waste at sea, which includes eight types of waste that may be considered for dumping at sea following a stringent assessment and licensing process.

Science has played, and continues to play, a crucial part in the development of regulations and guidance under the LC/LP, including of the more recent amendments to the Protocol, on sequestration of carbon in sub-seabed geological formations (2006), and on marine geoengineering (2013).

Most of the scientific advice that underpins the work under the LC/LP is achieved by relying on the subsidiary body, the London Convention/Protocol Scientific Groups, established already in the 70s. Many times, the Contracting Parties also rely on advice from GESAMP, through the establishment of dedicated working groups, providing specific advice to the governing bodies.

The work of the LC/LP, contributes to all societal outcomes, but perhaps most directly to societal outcome 1 (A clean ocean), which is at the core of the treaties, providing a regulatory framework for regulation of dumping at sea, based on decision making that is:

- reducing the amount of polluted materials that could end up in the sea;
- providing greater protection of the marine environment and its living resources provides benefits, such as protecting other economic uses of the sea, including fisheries and tourism, and therefore allows these to further develop in a sustainable way;
- providing a stringent global regulatory regime for dumping, a ban on the most harmful wastes, and a precautionary and proactive instrument for managing waste disposal at sea; and
- facilitating access to other international bodies and focused information exchanges, and by fostering dialogue between States about coastal management issues.

PSSAs

Improving the quality and accessibility of ocean science overall, will also be of importance to the process of establishing Particularly Sensitive Sea Areas (PSSAs). Guidelines on designating a “particularly sensitive sea area” (PSSA) are contained in resolution A.982(24) Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs). These guidelines include criteria to allow areas to be designated a PSSA if they fulfil a number of criteria, including: ecological criteria, such as

unique or rare ecosystem, diversity of the ecosystem or vulnerability to degradation by natural events or human activities; social, cultural and economic criteria, such as significance of the area for recreation or tourism; and scientific and educational criteria, such as biological research or historical value.

Marine Biosafety

IMO's work on Marine Biosafety revolves primarily around the prevention of the transfer of invasive aquatic species, for which the two shipping-related vectors are ballast water and hull biofouling.

In terms of knowledge gaps, the scientific questions and priority areas that should be addressed include research into technical solutions for biofouling and ballast water management such as:

- Effective non-biocidal anti-fouling coatings
- Environmentally sound in-water hull cleaning techniques for the removal of biofouling that minimize the release of biological and chemical material
- Efficacy, robustness, safety and environmental risks of ballast water management systems
- Ballast water sampling methods and devices for quick and inexpensive, yet reliable, testing of discharged ballast water for compliance with IMO's Ballast Water Management Convention
- Potential role of anti-fouling coatings as a source of microplastics in the ocean

Existing International initiatives/programmes/partnerships that could help address these knowledge gaps and science questions include, inter alia:

- The GEF-UNDP-IMO GloFouling Partnerships project (2019-2023), which will drive actions to implement IMO's Biofouling Guidelines as well as best practices and standards for improved biofouling management in shipping and other ocean industries. Participants in GloFouling include twelve lead partnering countries, representing a mix of developing nations including SIDS. Additionally, six regional environmental organizations and over 60 strategic partners (including developed countries, industry associations, INGOs, universities and research facilities) participate in the development of the project outputs. UNESCO-IOC is an Executing Partner for the project.
- Inter-agency partnerships including the ICES-IOC-IMO Working Group on Ballast and Other Ship Vectors (WGBOSV), which is a joint working group composed of scientists from around the world that follows and supports the work of ICES, UNESCO-IOC and IMO, with the objective of advancing the scientific understanding needed to guide management and policy decisions. This group works on matters related to both biofouling and ballast water management.
- GESAMP, which is jointly sponsored by ten UN bodies with responsibilities relating to the marine environment (including UNESCO-IOC), with the Secretariat of the GESAMP provided by IMO. Working groups include the Ballast Water Working Group, managed exclusively by IMO, and a newly established working group on biofouling impacts, funded by the GloFouling Partnerships project and managed by UNESCO-IOC with participation by IMO.

The above contributions directly address all four cross-cutting themes (capacity building and technology transfer; partnerships and financing; access to information, data and knowledge; communication and awareness raising). This is particularly the case for the GloFouling

Partnerships project, which covers all these themes in great depth within its structure and work programme. In addition, these themes are also inherently addressed by activities under IMO's Integrated Technical Cooperation Programme (ITCP) to build capacity in developing countries in relation to IMO instruments, as well as various inter-agency partnerships and networks that IMO is actively engaged in.

Atmospheric emissions from ships (MARPOL Annex VI)

IMO has been addressing greenhouse gas emissions from international shipping since 1997. As part of its work on this important matter, the Organization issued three major studies leading to an improved knowledge of GHG emissions from ships: the First IMO GHG Study in 2000, the Second IMO GHG Study in 2009 and the Third IMO GHG Study in 2014. A Fourth IMO GHG Study has been initiated for publication in autumn 2020. It will include in particular updated emissions estimates for the period 2012-2018 and projected emission scenarios for the period 2018-2050.

In 2018, IMO adopted its Initial Strategy on Reduction of GHG emissions from ships. It identifies in particular the need to incentivize the uptake of alternative low-carbon and zero-carbon fuels for shipping. In this regard, it is likely that in the future ocean-based renewable energy sources would be used to produce cleaner fuels for ships (i.e. green ammonia). Although this is still at an early stage, the rapid decarbonization of the shipping sector will require such solutions to be explored. This new area of research, while promoting synergies in the wider maritime community, would fall under the action "documenting the potential impacts from environmental changes on the established and emerging maritime industries and their ability to generate growth, especially for LDCs (Least Developed Countries) and SIDS (Small Island Development States)".

IV. Development of partnerships

IMO has been highly successful in developing partnerships with Governments, international organizations, regional institutions and industry for delivering technical assistance activities, promoting technology cooperation, and undertaking capacity-building.

IMO currently has partnership arrangements with around 65 IGOs and 75 NGOs. These partnerships provide valuable support for the delivery of capacity-building activities. They have also promoted the effectiveness of technical cooperation by increasing general awareness of IMO's mandate.

IMO has also taken an active role in ocean governance and formed strong partnerships with other UN organizations and international bodies to protect the health of the oceans and move towards a sustainable blue economy.

IMO partnership arrangements are being strengthened as the 2030 Agenda is implemented with a focus on the specific implementation needs of IMO Member States.

The IMO SDGs Strategy specifically calls for strengthening or developing new partnerships in the areas for the implementation of the SDGs (including strengthening partnerships with other UN bodies, industry, NGOs and ports, with focus on SDGs 5, 9, 13 and 14). The SDGs Strategy also call on IMO to continue working closely, as a partner agency, with the custodian agency (UNEP) when it comes to SDG14.1.1. which measures floating plastic litter as a global indicator of marine pollution.

Cooperation with Ports

Partnership with ports is of special importance for IMO when it comes to the implementation of the 2030 Agenda. An effective ship-port interface is crucial to the building of resilient infrastructure – which is core to SDG9.

Cooperation and partnership building with ports is also highly relevant to SDG 13. Ships currently use around 15% of their total fuel per voyage whilst in port or in a harbour. Port emissions toolkits have been developed with the support of the Global Maritime Energy Efficiency Partnerships (GloMEEP) Project.

Ports can provide vital infrastructure to supply alternative fuels to power shipping to meet the IMO ambitious GHG emissions targets.

IMO has invited Member States (resolution MEPC.322(74)) to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships. This could include regulatory, technical, operational and economic actions, such as the provision of: onshore power supply (preferably from renewable sources); safe and efficient bunkering of alternative low-carbon and zero-carbon fuels; incentives promoting sustainable low-carbon and zero-carbon shipping; and support for the optimization of port calls including facilitation of just-in-time arrival of ships.

Technical Cooperation (the IMO Integrated Technical Cooperation Programme)

In developing countries, the implementation of the IMO regulatory framework may be a significant challenge. IMO therefore provides technical assistance to these countries, helping them build their human and institutional capacities for compliance.

IMO was the first UN agency to institutionalize its Technical Cooperation Committee, a body that continues to oversee IMO capacity building programme and projects - where IMO acts as an executing or cooperating agency.

The Integrated Technical Cooperation Programme (ITCP), a framework of regional and global programmes, helps developing countries implement international maritime rules and standards.

SDGs of particular relevance to the ITCP have been identified and as much as possible, all ITCP activities are linked to relevant SDGs. This also helps to facilitate SDGs implementation at national level.

In line with Member States' needs, the ITCP covers a variety of issues, including maritime safety, security, facilitation, legislation, marine environment protection, Member State audits and maritime education and training.

Through its regional presence, IMO also undertakes targeted regional workshops, trainings, in line with specific regional cooperation, coordination and specific needs.

In 2018, 196 activities were delivered, including 13 advisory and needs assessment missions, and 123 training courses, seminars and workshops at national, regional and global levels covering an extensive range of topics.

Further alignment of work of ITCP and SDGs is ongoing. The IMO SDGs Strategy calls for overall alignment and alignment to specific SDGs, such as SDG5.

In addition the new Country Maritime Profile (CMP) module of IMO will greatly assist Member States in identifying gaps in the maritime sector and facilitate their input to the UNDAF process.

Resource Mobilization and Major Projects

The long-term resource mobilization strategy for IMO's Technical Cooperation activities is shaped by the guiding principles of ITCP in support of the 2030 Agenda, emphasizing the nexus between the objectives and goals of the ITCP and the SDGs. The Technical Cooperation Committee has a mandate to devise innovative mechanisms for securing a long-term, predictable, sustainable and flexible funding strategy for the ITCP.

Recognizing the resource mobilization needs for decarbonizing the shipping industry and drive the implementation of SDG13, IMO has set up a voluntary multi-donor trust fund ("**GHG TC-Trust Fund**"), to provide a dedicated source of financial support for technical cooperation and capacity-building activities to support the implementation of the IMO GHG Strategy.

IMO has undertaken successful resource-mobilization activities which are highly relevant to the achievement of SDGs. Some of these major projects with their key objectives are listed.

GloBallast Partnerships

The GEF-UNDP-IMO Global Ballast Water Management Project (**GloBallast**) assisted developing countries to reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water and implement the IMO Ballast Water Management (BWM) Convention.

The GloBallast Project also supported the creation of a pioneering public-private sector partnership, the "**Global Industry Alliance for Marine Biosecurity (GIA)**" to reduce the transfer of harmful aquatic organisms and pathogens via ships' ballast water, and maximize global environmental benefits from addressing this issue.

GloMEEP

The GEF-UNDP-IMO Global Maritime Energy Efficiency Partnerships Project (**GloMEEP**) overall goal is to strengthen the national capabilities for countries to become Party to and effectively implement MARPOL Annex VI. The project aims to contribute to a significant reduction of GHG emissions from international shipping, thus supporting the implementation of SDGs 13 and 14 via supporting a number of Lead Pilot Countries (LPCs) in taking a fast-track approach to pursuing relevant legal, policy and institutional reforms (LPIR), driving national government action and industry innovation to support the effective implementation of IMO's energy efficiency requirements.

GloMEEP supported ten Lead Pilot Countries (Argentina, China, Georgia, India, Jamaica, Malaysia, Morocco, Panama, Philippines and South Africa) to implement these measures, through: legal, policy and institutional reforms; awareness raising and capacity-building activities; and the establishment of public-private partnerships to support low carbon shipping

Through its partnership with 18 leading companies under the umbrella of the Global Industry Alliance to Support Low Carbon Shipping (GIA), GloMEEP is promoting innovative solutions and fostering research and development (R&D) to reduce emissions from ships and in ports, thereby also supporting implementation of SDGs 9 and 17. The GIA Fund, established through an annual membership contribution by the GIA industry partners, provides financial resources for the implementation of selected projects in chosen priority areas.

GloFouling Partnerships

The GEF-UNDP-IMO Global Biofouling Project (**GloFouling**), aims to address the transfer of harmful aquatic species through biofouling focuses on the implementation of the 2011 Guidelines for the control and management of ship's biofouling to minimize the transfer of invasive aquatic species (2011 Biofouling Guidelines), which provide a globally-consistent approach on biofouling management. The project also aims to spur the development of best practices and standards for improved biofouling management in other ocean industries. The GloFouling Project addresses SDGs 13, 14 and 15. Through their commitment to the outputs of the GloFouling Project, its 12 lead partnering countries taking part in this project will make direct contributions to the targets set out in the above SDGs and include them in their national SDG reporting. Additionally, the GloFouling Project includes targeted initiatives focusing specifically on women, aimed at creating an empowering space for reducing existing disparities in maritime administrations, the scientific community and the private sector (SDG 5); actions to encourage industry innovation and technology adoption (SDG 9); and specific opportunities for South-South, North-South and triangular cooperation both at the public and private sector levels (SDG 17).

GMN

The Global MTCC Network (GMN) project, implemented by the IMO and funded by the European Union, is designed to assist beneficiary countries in limiting and reducing GHG emissions from their shipping sectors through technical assistance and capacity-building, while encouraging the uptake of innovative energy-efficiency technologies among large numbers of users through the widespread dissemination of technical information and know-how.

Within the framework of the GMN project, five Maritime Technology Cooperation Centres (MTCCs) have been established in Africa (Kenya), Asia (China), the Caribbean (Trinidad and Tobago), Latin America (Panama) and the Pacific (Fiji), acting as centres of excellence for their regions. The MTCCs are working with partners to develop capacity-building, technology transfer and technical cooperation, sharing the results and their experiences throughout the network to ensure a common approach to a global issue.

The GMN project promotes international cooperation to facilitate access to clean energy research and technology, in particular, energy-efficiency and advanced, cleaner fossil-fuel technology, and fosters investment in energy infrastructure and clean-energy technology. The GMN project supports IMO's work in meeting SDGs 13, 7 and 9.

Cooperation with Norad, Norway

IMO has been implementing a number of marine environmental projects with the funding support from Government of Norway. The Norwegian Agency for Development Cooperation (Norad) and IMO signed agreements with IMO, whereby Norad agreed to finance the implementation of major projects related to the protection of the marine environment, focusing on enhancing the capacities of developing countries to implement and enforce related IMO Conventions, codes and other standards. These projects include:

Marine Environment Protection of the South-East Asian Seas project (MEPSEAS), which is improving the environmental health of the seas in the region by supporting seven participating developing countries (Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Thailand and Vietnam) to implement key IMO marine environment protection treaties.

Prevention of pollution from ships through the adoption of Particularly Sensitive Sea Areas (PSSAs) within the South-East Asia region (Indonesia, Malaysia, Philippines and Viet Nam)

Enhancing Regional Cooperation Mechanisms on Marine Pollution Preparedness and Response in South Asia region (Bangladesh, India, Maldives, Pakistan and Sri Lanka)

In addition, IMO and the Government of the People's Republic of Bangladesh are jointly implementing the Safe and Environmentally Sound Ship Recycling in Bangladesh (SENSREC) Project, which is now in its Phase II. IMO is acting as the implementing and executing agency for the project, working closely with the Ministry of Industries of the Government of the People's Republic of Bangladesh as the national executing partner. The project is funded by Norway's Ministry of Foreign Affairs, channelling finance through the Embassy of Norway to Bangladesh.

Recently IMO and Norway signed another partnership agreement whereby Norway committed financial resources for a long-term project to support the implementation of IMO's GHG strategy and specifically to assist developing countries in this area. The project is titled GreenVoyage-2050 which will support SDG 13, 7 and 9. The project will address legal, policy and institutional reforms, capacity building needs and will promote private sector partnerships and demonstration of technological solutions with a view to promote uptake of low-carbon solutions by the maritime industry.

Global Initiative Projects

IMO and IPIECA, the global oil and gas industry association for environmental and social issues are working together to develop global oil spill preparedness and response capacity, under the Global Initiative (GI). Under this umbrella programme, various activities are organized under the supervision of IMO and IPIECA to promote effective oil spill contingency planning and regional cooperation on oil spill preparedness and response. They include Global Initiative for West, Central and Southern Africa (GI WACAF Project) and GI South East Asia (GI SEA).

IMO's Global Maritime Security

The programme supports countries in enhancing security measures to protect ships and ports from threats posed by terrorism; piracy and armed robbery; smuggling of arms, drugs and illicit goods; and other illicit activities. Where practicable, the programme is delivered in collaboration with regional and UN partners with a shared interest in enhancing security in

global shipping and transportation, including through joint UN country assessment visits under the auspices of the UN Security Council's Counter Terrorism Executive Committee.

V. Possible themes for the interactive dialogues

“Sustainable Shipping for a Sustainable Planet”:

Year 2020 will mark the “beginning of a decade of action and delivery” that will be decisive for both the shipping industry and for life on the planet. IMO selected “Sustainable Shipping for a Sustainable Planet” as the 2020 World Maritime theme to embrace this and to raise awareness of the work that IMO and its member States undertake to contribute to achieving the SDGs.

Under this theme contributions of the Organization and the shipping industry as best practices towards a sustainable future, could be highlighted including ongoing work on digitalization, cyber-security, automatization, climate change (measures to address GHG emissions from ships, efficiency of ships), pollution from oceans (implementation of the Ballast Water Management Convention, efforts to reduce marine litter, protect the polar regions and reduce the sulphur content of ships' fuel oil).

The dialogue, next to taking stock of achievements up to date, would discuss key challenges, as well as opportunities of collaboration ahead to address these together with UN Agencies and other partners, to ensure that 2020-2030 will be a “decade of action”.

The session could also serve as an opportunity to showcase key outcomes of the UN Secretary General's Sustainable Transport Conference of 2020, which will take place in Beijing in May 2020.

“Towards a blue economy: sustainable maritime industries, common challenges and opportunities”

The achievement of the 2030 Agenda and specifically the protection of oceans and seas will require a transformative change from key marine industries. In case of the maritime industry this transformation is under-way with the support of the regulatory framework of IMO, but the change requires upscaled and innovative ways of investment and strengthened partnerships. This session would aim to engage discussion between UN bodies representing key maritime industries, industry members and International Financial Institutes, as well as representatives of the financial sector, with the aim to identify key investment needs and opportunities, with a potential plan of action to be agreed on, towards making 2020-2020 a decade of action, towards SDG14 and a blue economy.
