

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

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 sulphur limit introduced by IMO, which comes into effect, 1 January 2020, will reduce from 3.5% to 0.5% 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, Par

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), 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 fully supports t

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

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

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

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

Partnerships project, which covers all these themes in great depth within its structure and work

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

potential impacts from environmental changes on the established and emerging maritime industries and their ability to generate growth, especially for LDCs (Least Developed

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

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.

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- **GHG TC-Trust Fund** ion 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

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 351(Cbi)130.46 459.(or)9()-47(()50(S1)bw9)3

IMO has been implementing a number of marine environmental projects with the funding

global shipping and transportation, including through joint UN country assessment visits under

V. Possible themes for the interactive dialogues

“Sustainable Shipping for a Sustainable Planet”: