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ROLE OF IMO IN PREVENTION OF MARINE POLLUTION: AN ANALYSIS

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Abstract: The International Maritime Organization i.e. IMO is one of the specialized agencies of the United Nations which is working on controlling the various types of pollution in sea area. It was established by the Convention which was adopted in 1948 and entered into force in 1958. The main aim and objective of the Organization, as stated in Article 1(a) of the Convention, are *"to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships"* this research paper will focus on the various aspect of marine pollution and how effectively the IMO has contributed towards controlling the marine pollutions.

Keywords: International Maritime Organization, MARPOL, Oil Pollution, Garbage, Sewage, Gas pollution, Controlling measures.

The earth is probably the only place in the universe that can support human life. Humanity is totally dependent upon the earth's environment and its natural support system. The marine environment with its vital diversity of marine and estuarine animals and plants is an integral part of the natural and cultural heritage of the world. However, presently marine environment is under threat due to various types of pollution.

Marine pollution can arise from a variety of sources including the operation of shipping, dumping in sea, activities on the seabed and the effects of pollution originally on the land and entering the oceans. It is found that human activities on land are major threat to marine environment. What was supposed to be only limited to coastal areas is now affecting the ocean resources as a whole. Studies conducted have found that pollution arising in one coastal state is spreading to others. Population growth, increasing urbanization, industrialization, sewage run off and tourism in coastal areas are root causes of pollution. Most rivers are highly polluted by the time they join the oceans.

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Marine pollution incidents and the awareness about the protection and preservation of the earth's ecology have exposed the need for the establishment of the international organization for the protection and preservation of the marine environment. Accordingly, the earliest organization is International Council for the Exploration of the sea in 1902. However, this organization was scientific organization having no regulatory powers and confined only to North Atlantic and Baltic seas.[1]

According to the UNESCO, Marine pollution is:

"*The introduction by man, directly or indirectly, of substances or energy into the marine environment including (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality or use of sea water, and reduction of amenities*"[2].

Basically, this links marine pollution to human activities such as introduction by man causing certain undesirable results to the marine environment, notably harm to living resources, hazards to human health, hindrance to marine activities, including fishing, impairment of quality of sea water, and Reduction of amenities. These basic elements of the definition, i.e. human interference with the marine environment and the five undesirable effects, appear constantly through the development of the definition.[3]

There are many international organization working on the controlling the marine pollution of the sea from this there is only one organization fully working on the controlling the marine pollution i.e. International Maritime Organization herein after IMO[4]. IMO, has always been recognized that the best way of improving safety at sea is by developing international regulations that are followed by all shipping nations and from the mid-19th century onwards a number of such treaties were adopted. Several countries proposed that a permanent international body should be established to promote maritime safety more effectively, but it was not until the establishment of the United Nations itself that these hopes were realized. In 1948 an international conference in Geneva adopted a convention formally establishing IMO, the original name was the Inter-Governmental Maritime Consultative Organization, or IMCO, but the name was changed in 1982 to IMO.

The main purpose of IMO is as summarized by Article 1(a) of the Convention, are "*to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships*". The Organization is also empowered to deal with administrative and legal matters related to these purposes.[5]

The Organization consists of an Assembly, a Council and five main Committees, the Maritime Safety Committee, the Marine Environment

Protection Committee, the Legal Committee, the Technical Cooperation Committee and the Facilitation Committee and a number of Sub-Committees support the work of the main technical committees.[6] IMO played an very important role in protecting and preventing the environment In 1973, IMO adopted the International Convention for the Prevention of Pollution from Ships, now known universally as MARPOL[7], which has been amended by the Protocols of 1978 and 1997 and kept updated with relevant amendments. The MARPOL Convention addresses 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. MARPOL has greatly contributed to a significant decrease in pollution from international shipping and applies to 99% of the world's merchant tonnage.[8]

Other treaties address anti-fouling systems used on ships, the transfer of alien species by ships' ballast water and the environmentally sound recycling of ships. Reductions of pollution generated by ships have been achieved by addressing technical, operational and human element issues and are all the more noteworthy when compared with the significant growth in the world's shipping industry both in the size of the world fleet and the distances that it travels. IMO is continuously pursuing a pro-active approach to enhance implementation and enforcement, both by flag and port States, including a pro-active action plan to ensure that shore-based reception facilities for ship generated waste keep up with international regulatory requirements.[9] IMO has categories of pollution in the Oil pollution, Chemical Pollution, Sewage, Carbage and Air Pollution.

Oil Pollution

Oil tankers transport some 2,900 million tons of crude oil and oil products every year around the world by sea. Most of the time, oil is transported quietly and safely. Measures introduced by IMO have helped ensure that the majority of oil tankers are safely built and operated and are constructed to reduce the amount of oil spilled in the event of an accident. Operational pollution, such as from routine tank cleaning operations, has also been cut.[10]

The operational and construction regulations introduced by MARPOL, which entered into force in 1983, have been a success, with statistics from reputable industry and independent bodies showing that these regulations, along with other safety-related regulations such as the introduction of mandatory traffic separation schemes and international standards for seafarer training, have been instrumental in the continuous decline of accidental oil pollution that has taken place over the last 30 years.[11]

The MARPOL convention, in 1983, introduced a number of radical new concepts, such as a requirement for new oil tankers to be fitted with segregated

ballast tanks, so as to obviate the need to carry ballast water in cargo tanks. This was superseded by the requirement for oil tankers delivered from 1996 onwards to be fitted with a double hull. The protection of the marine environment was thus greatly enhanced. As far as operational oil pollution is concerned, the many innovations introduced by MARPOL on allowable discharges of bilge water through the oily water separator with the well-known 15ppm standard[12], or oily waters from the cargo tanks, through the oil discharge and monitoring system, have contributed greatly to a noticeable decrease in the pollution of the world's seas, though it is fair to recognise that a greater effort to impose compliance must be carried out.[13] From that period to till date this organization working on the controlling and prevention of the oil pollution.

Chemical Pollution

Regulations governing the carriage of chemicals by ship are contained in the International Convention for the Safety of Life at Sea i.e. SOLAS[14] and the International Convention for the Prevention of Marine Pollution from Ships, as modified by the Protocol of 1978 relating thereto MARPOL.[15]

The chemical carried in bulks Carriage of chemicals in bulk is covered by regulations in SOLAS Chapter VII i.e. Carriage of dangerous goods and MARPOL Annex II - Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk. Both Conventions require chemical tankers built after 1 July 1986 to comply with the International Bulk Chemical Code i.e. IBC Code, which sets out the international standards for the safe carriage, in bulk by sea, of dangerous chemicals and noxious liquid substances. The Code prescribes the design and a construction standard of ships involved in the transport of bulk liquid chemicals and identifies the equipment to be carried to minimize the risks to the ship, its crew and to the environment, with regard to the nature of the products carried.

Sewage

The discharge of raw sewage into the sea can create a health hazard. Sewage can also lead to oxygen depletion and can be an obvious visual pollution in coastal areas, a major problem for countries with tourist industries. The main sources of human-produced sewage are landbased, such as municipal sewers or treatment plants. However, the discharge of sewage into the sea from ships also contributes to marine pollution.[16]

Annex IV 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. It is generally considered that on the high seas, the oceans are capable of

assimilating and dealing with raw sewage through natural bacterial action. Therefore, the regulations in Annex IV of MARPOL prohibit the discharge of sewage into the sea within a specified distance from the nearest land, unless otherwise provided[17].

The discharge of sewage into the sea is prohibited, except when the ship has in operation an approved sewage treatment plant or when the ship is discharging comminuted and disinfected sewage using an approved system at a distance of more than three nautical miles from the nearest land. Sewage which is not comminuted or disinfected may be discharged at a distance of more than 12 nautical miles from the nearest land when the ship is end route and proceeding at not less than 4 knots, and the rate of discharge of untreated sewage shall be approved by the Administration[18]

Garbage

Garbage from ships can be just as deadly to marine life as oil or chemicals. The greatest danger comes from plastic, which can float for years. Fish and marine mammals can in some cases mistake plastics for food and they can also become trapped in plastic ropes, nets, bags and other items - even such innocuous items as the plastic rings used to hold cans of beer and drinks together.

It is clear that a good deal of the garbage washed up on beaches comes from people on shore holiday makers who leave their rubbish on the beach, fishermen who simply throw unwanted refuse over the side or from towns and cities that dump rubbish into rivers or the sea. But in some areas most of the rubbish found comes from passing ships which find it convenient to throw rubbish overboard rather than dispose of it in ports[19].

For a long while, many people believed that the oceans could absorb anything that was thrown into them, but this attitude has changed along with greater awareness of the environment. Many items can be degraded by the seas but this process can take months or years. Persuading people not to use the oceans as a rubbish tip is a matter of education the old idea that the sea can cope with anything still prevails to some extent but it also involves much more vigorous enforcement of regulations such as MARPOL Annex V.[20]

Air Pollution, Energy Efficiency and Greenhouse Gas Emissions:

In 1997, a new annex was added to the International Convention for the Prevention of Pollution from Ships i.e. MARPOL. The regulations for the Prevention of Air Pollution from Ships[21] seek to minimize airborne emissions from ships like SO_x, NO_x, ODS, VOC shipboard incineration and their contribution to local and global ai r pollution and environmental problems. Annex VI entered into force on 19 May 2005 and a revised Annex VI with

significantly tightened emissions limits was adopted in October 2008 which entered into force on 1 July 2010.[22]

IMO in order to technically address reduction of these pollution, adopted a resolution on Promotion of Technical Co-operation and Transfer of Technology relating to the Improvement of Energy Efficiency of Ships and is focusing its efforts on technical co-operation and capacity building to ensure smooth and effective implementation and enforcement of the new regulations worldwide. To that effect, IMO has been undertaking a series of workshops in all regions of the world on implementation of the measures to address GHG emissions from international shipping.

Finally, it can be said that IMO is the only specialized agency of the United Nations wholly dedicated to maritime affairs. Its activities, which were initiated in 1959, have been focused on the elaboration and adoption of conventions, protocols and recommendations to be implemented in the field of maritime safety, efficiency of navigation and the prevention of marine pollution. IMO has also developed treaty instruments with the purpose of unifying international law in questions of liability and compensation for damage resulting from ships' activities and, in particular. from vessels' source pollution. IMO activities have resulted in the elaboration of 35 international treaty instruments like conventions and protocols and well over 600 codes and recommendations.

Footnotes

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[1]20U Miami Inter-AM.L.Rev-579

[2]UNESCO doc. SC/MD/19, June 1, 1970, Annex IV p. 12

[3]G. R. J. Timagenis, International Control of Marine Pollution Vol. I, Oceana Publications, Inc. Dobbs Ferry, New York. P.23.

[4]UN Chronicle, The Role of the International Maritime Organization in Preventing the Pollution of the World's Oceans from Ships and Shipping, Volume LIV Nos. 1 & 2 2017, Available at https://unchronicle.un.org/article/role-international-maritime-organization-preventing-pollution-worlds-oceans-ships-and Last seen on 1/1/2019

[5]IMO, Brief History of IMO,

[6]Ibid

[7]International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78, MARPOL is short for marine pollution and 73/78 short for the years 1973 and 1978)

[8]International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78, MARPOL is short for marine pollution and 73/78 short for the years 1973 and 1978)

[9]Ibid

[10]IMO, MARPOL Annex I – Prevention of Pollution by Oil, Available at http://www.imo.org/en/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Default.aspx Last seen on 12/12/2018

[11]Ibid

[12]IMO, MARPOL Annex I – Prevention of Pollution by Oil, Available at http://www.imo.org/en/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Default.aspx Last seen on 12/12/2018

[13]Ibid

[14]Anish, Safety of Life at Sea (SOLAS) & Convention for Prevention of Marine Pollution (MARPOL): A General Overview, Marine in sight, Available at https://www.marineinsight.com/maritime-law/safety-of-life-at-sea-solas-convention-for-prevention-of-marine-pollution-marpol-a-general-overview/ Last seen on 10/12/2018

[15]IMO, Carriage of chemicals by ship, http://www.imo.org/en/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/Default.aspx Last seen on 12/12/2018

[16]IMO, Prevention of Pollution by Sewage from Ships, Available at http://www.imo.org/en/OurWork/Environment/PollutionPrevention/Sewage/Pages/Default.aspx Last seen on 15/12/2018

[17]Annex IV- Regulations for the Prevention of Pollution by Sewage from Ships, Available at http://www.marpoltraining.com/MMSKOREAN/MARPOL/Annex_IV/r11.htm Last seen on 1/1/2019

[18]ANNEX 14 RESOLUTION MEPC.157(55) Adopted on 13 October 2006, Available at http://www.imo.org/en/OurWork/Environment/PollutionPrevention/Sewage/Documents/Resolution%20MEPC.157-55.pdf Last seen on 16/12/2108

[19]IMO, Prevention of Pollution by Garbage from Ships, Available at http://www.imo.org/en/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx Last seen on 21/12/2018

[20] MARPOL Annex V seeks to eliminate and reduce the amount of garbage being discharged into the sea from ships. Unless expressly provided otherwise, Annex V applies to all ships, which means all ships of any type whatsoever operating in the marine environment, from merchant ships to fixed or floating platforms to non-commercial ships like pleasure crafts and yachts.

[21]Annex VI of the MARPOL convention

[22]Laurent Fedi, Air pollution from ships: towards harmonization or atomization of rules? A plea in favour of a feasible and universal regime for shipping industry, Available at https://www.researchgate.net/publication/ 304246631 _Air_pollution_from_ships_ towards_harmonization_or_ atomization_of_ rules_A_plea_in_ favour_of_a_feasible_ and_universal_ regime_ for_ shipping_industry Last seen on 2/1/2019