



An Exploratory Study on Marine Pollution, its Types, Regulations and Conventions

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ABSTRACT

The aim of the article is to study marine pollution and the conventions to deal with it. Further discussion explores regulations and conventions that help in dealing with issues of marine pollution.

KEYWORDS : Marine pollution, oil pollution, regulations, conventions

Introduction:

Marine pollution and the impact that it has on all stakeholders

A ship can incur civil liability for damage caused by it due to spillage of oil, causing what is termed oil pollution. The Merchant Shipping Act, 1958, under sections 352 G to 352 ZA covers the subject dealing with civil liability for oil pollution damage and constitution of international oil pollution compensation fund.

Part XB: Civil liability for oil pollution damage: Section 352 G deals with liability of owner for any pollution damage caused by oil from ship. The owner be entitled to limit his liability under section 352J. Further, sections cover the relevant provisions such as 352 K constitution of limitation fund, 352 L to 352 R.

Part XC: International oil pollution compensation fund: Section 352 S (d) set out the definition of the fund convention which means the international convention on the establishment of an international fund for compensation for oil pollution damage, 1992 as amended from time to time. Further, sections 352 T to 352ZA cover the relevant provisions. Section 352 T deals with contribution to the fund.

Part XI A of the Merchant shipping Act 1958, deals with prevention and containment of pollution of the sea by oil. The relevant sections are dealing with same in sections 356 A to 356 O.

However, Section 356 B sub clause (e) runs as, "Convention" means the international convention for the prevention of pollution from ships, 1973, including its protocol of 1978, as amended from time to time in the manner specified therein.

Marine Pollution- The term marine pollution was defined by United Nations working group called "Group of Experts on Scientific Aspects of Marine environmental Protection (GESAMP)". GESAMP defined it as "Pollution means introduction by man, directly or indirectly of substances or energy into the marine environment (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 for use of seawater and reduction of amenities".¹

Marine pollution - **Marine pollution** occurs when harmful, or potentially harmful, effects result from the entry into the **ocean** of chemicals, particles, industrial, agricultural and residential waste, noise, or the spread of invasive organisms.²

The M.V. Rena oil spill's disaster impacted the surrounding environment of the Astrolabe Reef and the coast of Tauranga in New Zealand quite extensively. The fuel on board the *Rena* consisted of 1,700 tonnes of heavy oil and 200 tonnes of diesel fuel at the time of accident. In the "Bay of Plenty" over a thousand tonnes of sand could be removed in order to extract the fuel soaking into the ground. After the oil spill of the *Rena*, 649 containers of cargo were recovered. Unfortunately when this happened up to 300 containers were lost overnight and it had a great impact on stack holders.³

The M.T. Prestige oil spill was an oil spill in Galicia caused by the

sinking of the oil tanker *MT Prestige* in 2002. The spill polluted thousands of kilometers of coastline and more than one thousand beaches on The Spanish, French and Portuguese coast, as well as causing great harm to the local fishing industry. The spill is the largest environmental disaster in the history of both Spain and Portugal.⁴

The 2010 Mumbai oil spill occurred after the Panama - flagged MV MSC Chitra (IMO: 7814838) and MV Khalijia 3 (IMO: 8128690) collided off the coast of India near Mumbai on Saturday, 7 August 2010 at around 9:50 A.M local time. MSC Chitra, which was outbound from South Mumbai's Nava Sheva port, collided with the inbound Khalijia-III, which caused about 200 cargo containers from MSC Chitra to be thrown into the Arabian Sea. Khalijia-III was apparently involved with another mishap on 18 July 2010.⁵

Study of regulations and conventions dealing in marine pollution:

For marine pollution, Jurisdiction is vested in the Admiralty Court to entertain a claim for damage caused by a Vessel including civil liability for damage caused by pollution covered under the provisions of the Merchant Shipping Act, 1958. Thus all claim arising out of the damage caused by the Vessel fall under this head. One of the most important claims in this category is the claim for damage caused by pollution by a ship. The pollution of sea by various substances has been a great concern for all countries and a number of conventions have been held to find out ways and means to control the pollution of sea and provide safeguards to prevent such occurrences. The landmark convention in this direction is 'MARPOL 73/78' (The Convention), which covers various forms of pollution of the sea by Ship and provides guidelines to be followed by the member Countries for preventing them. India is also a party to the said Convention. In India, under the Merchant Shipping Act, provisions are laid down under Part XI A (Section 356A-356 O) to implement the provisions of the convention. This Part is titled as 'Prevention and Containment of Pollution of the Sea by Oil'. However, whilst the Convention covers six forms of pollution of sea by ships, the M.S. Act does not cover all of them. The forms of pollution, which are covered under the Convention, but not covered under the M.S. Act, are:

1. Pollution by Garbage from Ships
2. Air pollution from Ships.

Here it is to be noted that non-inclusion of some kinds of pollution in the M.S. Act does not necessarily mean that India is not bound by the provisions of the Convention in relation to those types of pollutions. The binding effect of those provisions depends solely on the ratification by India of the concerned Annex irrespective of its inclusion in the local laws of India.

Besides the above provisions, there are provisions under the M.S. Act on the aspect of oil pollution, which are found in Part XB- Civil Liability for Oil Pollution Damage and Part XC- International Oil Pollution Compensation Fund. There is no provision in the M.S Act to restrict liability in respect of Oil Pollution.

As discussed above, the main and the most important Convention in regard to the prevention of pollution from ships is 'MARPOL 73/78'.

The International Convention for the prevention of pollution from ship, 1973 was adopted by the International Conference on marine pollution convened by International Maritime Organization (IMO) from 8th October to 2nd November 1973. This convention was subsequently modified by the Protocol of 1978 which was adopted by the International Conference on tanker safety and pollution prevention convened by IMO from 6th to 7th February 1978. The Convention as modified by the 1978 protocol is known as the "International Convention for the prevention of pollution from ship, 1973, as modified by the protocol of 1978 relating thereto", or in short form, "MARPOL 73/78". The Convention has also been modified by the Protocol of 1997, whereby a sixth Annex has been added to the convention.

The Convention has updated and developed the principles established by the Convention of 1954, which dealt only with oil pollution. The Convention resulted from a conference in which 78 Maritime Nations took part, India being one of them. There has been constituted a Marine Environment Protection Committee (MEPC) in 1974, which keeps revising the provisions of the Convention to make them suitable for the changed circumstances.

There were originally 20 Articles in the convention of 1973. However by the protocol of 1978 some modifications were made in the said convention. This protocol of 1978 contains 9 articles which are to be read in conjunction with the convention of 1973 which after the protocol of 1978 is termed as MARPOL 73/78. Further in accordance with Article 8 and article 10 of the convention of 1973, two protocols consisting of 5 and 10 articles were passed, which also are to be read as part of the convention itself. There are 6 Annex in the Convention, which cover six different kinds of pollution of sea, which are as under:

- Annex I - Regulations for the Prevention of Pollution by Oil
- Annex II-Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk
- Annex III- Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form
- Annex IV- Prevention of Pollution by Sewage from Ships
- Annex V- Prevention of Pollution by Garbage from Ships
- Annex VI- Prevention of Air Pollution from Ships

Under section 356A-356 O of the M.S. Act, it is provided that Annex I, Annex II, Annex III and Annex IV have been ratified by India. However, as far as Annex V is concerned, by virtue of Article 14 of the Convention, it is made optional and it is not known whether the same has been ratified by India or not. The same is the position with Annex VI, which was added to the Convention by the protocol of 1997 and came into force on 19th May 2005, but the ratification of the same by India is also not known. These Annex deal with six different forms of pollution of sea by ships and provide the guidelines for preventing them.⁶MARPOL 1973/78 will certainly have a considerable impact in reducing the problem of pollution.

There are various other Conventions related to the subject of pollution. A very brief introduction to these Conventions provided hereafter

International Convention on Civil Liability for Oil Pollution Damage, 1969 as amended by the Protocol of 1992.

The objects of this convention are three fold: (1) to ensure adequate compensation to persons who suffer from oil pollution by ship, even if the owner is not in a position to pay the same; (2) to adopt uniform international rules and procedures to determine civil liabilities for losses due to pollution by oil from ship; and (3) to encourage Government to take early and decisive action in containing/ minimizing the adverse effect of oil pollution.

This Convention applies to all oil tankers in situations where pollution results from them in territorial seas and exclusive economic zones upto 200 miles. However, it does not apply to warships and to state owned ships provided such ships are not engaged in commercial operations. The limitation of liability under this Convention also is decided on the basis of the tonnage of ship. No claim can be made against the Charterers, Masters, pilot, crew, salvors or agent of the ship. India has adopted the provisions of the 1969 convention through Part X B containing Sections 352 G to 352 R in M. S. Act.

International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992.

The earlier version of this Convention was adopted in 1971. It was amended and renamed as above in 1992. It came into force from 30th May 1993. The object of passing this convention is to provide compensation for losses due to pollution to the extent and in the cases, where the security provided by the 1992 liability convention is inadequate. In other words the fund provides supplementary compensation to victims of oil pollution disaster. For this purpose, an International Oil Pollution Compensation Fund 1992⁷generally referred to as the IOPC Fund 1992was set up under the 1992 Fund Convention. The 1992 Fund convention is a worldwide intergovernmental organization established for the purpose of administering the regime of compensation created by the 1992 Fund Convention. By becoming Party to the 1992 Fund Convention, a State becomes a Member of the 1992 Fund. The Organization has its headquarters in London. All persons/ Companies in any country importing more than 1, 50,000 tons of crude oil in a year shall make contribution to the Fund as may be called upon to do so from time to time.

The 1992 Fund pays compensation to those who have suffered from oil pollution damage in a State which is a Party to the 1992 Fund Convention and is not given full compensation under the 1992 Civil Liability Convention for one of the following reasons:

- (a) the shipowner is exempt from liability under the 1992 Civil Liability Convention because he can invoke one of the exemptions under that Convention; or (b) the shipowner is financially incapable of meeting his obligations under the 1992 Civil Liability Convention in full and his insurance is insufficient to satisfy the claims for compensation for oil pollution damage; or (c) the damage exceeds the shipowner's liability under the 1992 Civil Liability Convention.

In order to become Parties to the 1992 Fund Convention, States must also become Parties to the 1992 Civil Liability Convention.

As on 1st March 2005, 105 States had ratified the 1992 Civil Liability Convention, and 92 States had ratified the 1992 Fund Convention. India has ratified both, the Civil Liability Convention and 1992 Fund Convention.

The 1992 Fund owes no liability to pay any compensation if:

- (a) the damage occurred in a State which was not a Member of the 1992 Fund; or
- (b) the pollution damage resulted from an act of war or was caused by a spill from a warship; or
- (c) the claimant cannot prove that the damage resulted from an incident involving one or more ships adapted for the carriage of oil in bulk as cargo.

The advantages for a State being Party to the 1992 Civil Liability Convention and the 1992 Fund Convention can be summarized as follows. If an incident causing pollution occurs involving a tanker, compensation is available to governments or other authorities which have incurred costs for clean-up operations or preventive measures and to private bodies or individuals who have suffered damage as a result of the pollution. For example, fishermen whose nets have become polluted are entitled to compensation, and compensation for loss of income is payable to fishermen and to hoteliers at seaside resorts. This is independent of the flag of the tanker, the ownership of the oil or the place where the incident occurred, provided that the damage is suffered within a Party State.

India has incorporated Sections 352 S to 352 Z A under Part X C with the heading 'International Oil Pollution Compensation Fund' in the M.S. Act, 1958 to implement the provision of the Convention.

Oil Pollution Response of Preparedness and Co-operation Convention 1990

In accordance with this convention, Coast Guard has developed national Oil Spill Disaster and Contingency Plan and publishes and promulgates plans to deal with such contingencies⁸.

The International Convention on Civil Liability for Bun-

ker Oil Pollution Damage, 2001

This Convention was needed as the presently existing arrangements on Liability and Compensation for Oil Pollution Damage under Civil Liability Convention and Fund Convention did not include Bunker Oil Spillage from non-Tanker Vessels. There was no International Law, which existed to pay Compensation for oil spillage resulting from Bunker Oil carried on Board the Ship other than tankers. Although the Civil Liability Convention and Fund Convention set out the basis on which a Ship Owner is held liable and the limits of such liability, they relate only to oil carried as cargo on board tankers. Further although the 1992 Protocol to Civil Liability Convention covers Bunker Oil Spillage from laden or un-laden tankers, there is no provision to cover Bunker Spillage from non-tankers. Hence, this Convention was passed. This Convention has neither been signed nor ratified by India.

Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matters, 1972, (with 1996 Protocol)⁹

This Convention in short is also called 'London Dumping Convention 1972'. The objective of the convention is to promote the effective control of all sources of Marine Pollution. It aims to achieve this objective by preventing pollution of the sea through regulation regarding dumping into the sea of waste materials. For this purpose waste materials are grouped into three main groups, so that they can be considered for disposal at sea according to the hazards they present to the environment. These groups are:-

- (a) For the Items in Black List, dumping is prohibited;
- (b) For the Items in Grey List a special permit from a designated National Authority has to be obtained;
- (c) All other materials can be dumped after obtaining a general permit.

Difference between MARPOL and London Dumping Convention¹⁰:

The MARPOL Convention covers all the technical aspects of pollution from ships, except (1) the dumping of wastes by ships and (2) pollution arising from exploration and exploitation of sea-bed mineral resources. There is a big difference between the operational discharges by vessels (MARPOL) and dumping of wastes from vessels (London Convention). The prohibition of all incineration at sea under the London Protocol, does not affect the incineration on board vessels of garbage, which is allowed under Annex V of MARPOL provided all conditions of that Annex are met.

It is to be noted that in respect of claim generally (except the ones related to pollution) arising out of the claims for loss of life or personal injury or loss of or damage to property, etc., the liability of the ship owner and salvor can be limited under provisions laid down in part XA of M.S. Act. Besides the claim for damage arising out of Pollution, there may be certain other claims also, which can arise under this section like damage by vessel to piers, jetties, etc., as the Section in general covers all claims arising out of damage caused by the vessel.

Conclusion:

Prevention measures by Indian coast guards:

Marine environment security is a statutory function of a coast guard under the Coast Guard Act, 1978. The coast guard identifies marine environment security through protection, preservation, prevention of the marine environment and control of marine pollution.

The Indian coast guard is the designated national authority for oil spill response in Indian waters under the National Oil Spill Disaster Contingency Plan. There have been twelve spill incidents so far where the coast guard has undertaken response actions in Indian waters, including the Lajpat Rai in Bombay Port (1984) and the Puppy (1989) which occurred offshore but led to shoreline oiling. Oil from the Maersk Navigator spill in 1993 was monitored by coast guard aircraft and treated with dispersant from a coast guard cutter.

Oil pollution affects the human community at large. It is not only the owner, crew, government, port authority or industry adjoining the sea that is affected by it, but society as a whole. Any harm to an industry or the environment of a port ultimately affects the citizens of a nation too. It is vital that civil and criminal liability regimes are developed to deal with oil pollution but, more importantly, steps should be taken

to prevent pollution in any form or manner in the first place¹¹.

It is concluded that this article enlightens the legal position in India when the accidents happened in sea due to marine pollution. Accidents happened due to poor organizational culture on board ships, and lack of discipline among the crew members aboard. Many times it happened that the seafarers have awareness of the accident but due to lack of alertness, accident happened.

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