Legal Aspects of Marine Pollution

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Introduction

Marine pollution refers to the presence of harmful substances in the oceans, seas, and other bodies of saltwater, such as oil, chemicals, plastics, and sewage. These pollutants can have severe impacts on marine life, the environment, human health, and the economy. The damage to marine ecosystems can have long-lasting effects on wildlife, including the death of marine mammals, birds, and fish, as well as the destruction of important habitats. The impact of marine pollution on human health is also a concern, as contaminated seafood and other products from the sea can pose a serious health risk to those who consume them.

Types of Marine Pollution

Pollution from Land-Based Sources: Land-based activities are a major source of marine pollution, including pollution from agricultural runoff, sewage discharge, and industrial effluent. Some of the contaminants produce eutrophication and oxygen depletion, resulting in the loss of marine life and biological diversity.

Pollution from Seabed Activities: Marine pollution can be caused by drilling activities on the seabed, which produces toxic pollutants such as hydrocarbons as well as concentrations of heavy metals, including chromium, cadmium, copper, zinc, lead, mercury, and nickel.

Pollution from Dumping: It means any deliberate disposal of wastes or other matter from vessels, aircraft, platforms, or other artificial structures at sea; or any deliberate disposal of vessels, aircraft, platforms, or other artificial structures at sea.

Pollution from Vessels: This type of pollution is produced by the regular operation of ships where vessels with oil-burning engines discharge some oil with their bilge water, and the fumes are discharged through their funnels into the

atmosphere, which eventually returns to the sea. Besides, pollution can also be caused by the accidents of vessels, which will generate oil spills and discharge other chemicals into the sea that exemplifies the scale and severity of the damage to marine ecosystems as well as to coastal communities.

Pollution from or through the Atmosphere: It is also possible for pollution to occur from material transported through the atmosphere and deposited on the ocean surface. This type of pollution is capable of contaminating the essential elements of carbon, nitrogen, sulphur, and phosphates in the bio-geochemical cycle of the natural process, which is essential for maintaining life both on land and in the sea.

Pollution from Marine Scientific Research: It is needless to mention that marine scientific research is essential for the exploitation, conservation, and management of marine resources, both living and non-living. In addition, research may be undertaken for scientific or military purposes also. These would include geological, hydrographic, oceanographic and biological research and could include drilling into the continental shelf, using explosives, using noxious substances, interference with the surface and subsoil of the ocean floor, the erection of structures, the discharge of waste and the destruction of commercially important marine living or non-living species.

International Legal Framework

To address these various sources, a number of international legal instruments have been developed to regulate marine pollution and promote sustainable use of the ocean.

UNCLOS: United Nations Convention on the Law of the Sea (UNCLOS) is a comprehensive treaty that sets out the legal framework for the use and protection of the world's oceans and their resources. One of the key provisions of the UNCLOS (Art. 194) is the obligation of states to protect and preserve the marine environment. The UNCLOS sets out the rights and responsibilities of states in relation to the marine environment and outlines the measures they should take to prevent, reduce and control marine pollution from land-based sources, ships, and seabed activities.

To prevent pollution from ships, UNCLOS requires those ships to have appropriate equipment and procedures for the prevention and control of pollution, as well as ensuring that ship owners and operators are liable for any pollution caused by their ships. UNCLOS prohibits the dumping of any substances or objects that are likely to cause harm to the marine environment. This includes prohibiting the dumping of waste, including nuclear waste, into the marine environment.

While all States Party are entitled to conduct marine research programmes it is conditional on the protection of the rights of other States. These rights would include protection from damage and pollution of their marine reserves and environment. Great care should be taken by States conducting research, whether it be in their own maritime zone or, by consent, in another States area, and the involvement of international organisations in the process is therefore important.

The London Convention: The London Convention (LC) and its 1996 Protocol regulate the dumping of waste at sea, including radioactive waste, and establish a comprehensive framework for managing such waste. The convention requires that all dumping at sea be subject to prior authorization by the State whose flag the dumping vessel is flying and sets out strict standards for the disposal of toxic and hazardous waste.

MARPOL 73/78: The IMO has adopted several international conventions, including The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and the International Convention for the Control and Management of Ship's Ballast Water and Sediments, to regulate the discharge of pollutants from vessels into the marine environment. It sets out mandatory regulations for the design, construction, and operation of ships, as well as the procedures for the handling, storage, and disposal of ship-generated waste and cargo residues. The convention also requires ships to carry equipment and procedures to minimize the risk of accidental pollution and establishes provisions for emergency response and cooperation in the event of an oil spill.

OPRC: The International Convention on Oil Pollution Preparedness, Response, and Cooperation (OPRC) provides a framework for international cooperation and coordination in the event of a major oil spill. It establishes procedures for preparedness and response and sets out guidelines for cooperation and coordination among states, including the sharing of information, equipment, and personnel.

UNFCCC and the Paris Agreement: United Nations Framework Convention on Climate Change (UNFCCC), and the Paris Agreement provide a framework for global action to address the causes and impacts of climate change, including marine pollution from greenhouse gas emissions and ocean acidification. The Paris Agreement sets a long-term goal of keeping the increase in global average temperature well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C.

Regional Agreements and Frameworks

In addition, there are also regional agreements and frameworks in place to address marine pollution, such as the Convention for the Protection of the Marine Environment of the North-East Atlantic (1992), Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (1995), etc. These regional agreements provide for cooperation between countries in the region and for implementing measures to protect the marine environment and prevent marine pollution.

National Legal Framework

In addition to the international and regional legal frameworks, many countries have enacted their own national laws to address marine pollution. These laws may be based on the provisions of international and regional agreements, or they may establish their own standards and regulations to protect the marine environment. National laws may also provide for penalties and enforcement mechanisms to ensure compliance with the legal requirements.

There are several Acts/Ordinances/Rules/Plans, and Policies related to marine pollution in Bangladesh. Some of the important ones are:

SL	List of Act/Ordinance/Rule/Plan/Policy	Related Ministry /Division	Came into Force
1	The Ports Act, 1908	MoS	18 Dec 1908
2	The Bangladesh Merchant Shipping Ordinance, 1983	MoS	30 Jun 1983
3	The Environment Conservation Rule, 1997	MoEF	1997
4	National Water Policy, 1999	MoWR	1999
5	The Bangladesh Coastal Zone Policy, 2005	MoWR	2005
6	The Bangladesh Environment Conservation Act, 1995 (Amended in 2010)	MoEF	05 Oct 2010
7	Bangladesh Water Act, 2013	MoWR	02 May 2013
8	Bangladesh Biodiversity Act, 2017	MoEFCC	19 Feb 2017
9	Bangladesh Shipping Corporation Act, 2017	MoS	21 Mar 2017
10	National Environmental Policy, 2018	MoEFCC	2018
11	Marine Fisheries Act, 2020	MoFL	26 Nov 2020
12	National Oil and Chemical Spill Contingency Plan, 2020	MoEFCC	Feb 2020
13	Bangladesh Oil Gas and Mineral Corporation Act, 2022	MoPEMR	20 Nov 2022

Conclusion

In conclusion, marine pollution is a complex issue that requires the effective implementation and enforcement of international, regional, and national legal frameworks. These legal frameworks provide essential protections for the ocean and its inhabitants and ensure that the ocean remains a healthy and productive environment for future generations. The implementation and enforcement of these legal requirements are crucial to reducing marine pollution and preserving the ocean for future generations.

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