

Ocean pollution & the Bangkok Declaration

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Manifest Pedagogy

Ocean pollution is a major area of concern in global environmental governance. While covering pollution aspirants typically tend to skip Ocean Pollution. The Bangkok Declaration makes ocean pollution its forms and conventions associated with it important for Preliminary and Mains

In news

ASEAN Bangkok Declaration

Static dimensions

- Regulatory environment – Sea-based conventions – MARPOL, UNCLOS, Oil Spill Convention, SDG 14
- Land-based pollution – Points of origin
- The enormity of pollution – Ocean bed and ocean surface pollution

Current dimensions

- Bangkok declaration
- New technologies used to clean
- The way forward – Regulatory and lifestyle changes

Regulatory environment – Sea based conventions – MARPOL, UNCLOS, Oil Spill Convention, SDG 14

International Convention for the Prevention of Pollution from Ships (MARPOL)

It is the main international convention covering prevention of

pollution of the marine environment by ships from operational or accidental causes. The MARPOL Convention was adopted on 2 November 1973 at IMO.

The **Convention includes regulations aimed at preventing and minimizing pollution from ships – both accidental pollution and that from routine operations** – and currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes. **The six annexes are;**

1. Regulations for the Prevention of Pollution by Oil
2. Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk
3. Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form
4. Prevention of Pollution by Sewage from Ships
5. Prevention of Pollution by Garbage from Ships
6. Prevention of Air Pollution from Ships

The United Nations Convention on the Laws of the Sea(UNCLOS)

UNCLOS is an international treaty which was adopted and signed in 1982. It replaced the four Geneva Conventions of April 1958, **The Convention has created three new institutions on the international scene :**

1. The International Tribunal for the Law of the Sea.
2. The International Seabed Authority.
3. The Commission on the Limits of the Continental Shelf.

The convention has become a **legal framework for marine and maritime activities** and IUCN with its partners are working towards an implementing agreement that will close important gaps in governance. A positive result would provide a measure of protection and conservation of Areas Beyond National Jurisdiction (ABNJ) where there is none at present.

The International Convention on Oil Pollution Preparedness,

Response, and Co-operation

OPRC is an international maritime convention **establishing measures for dealing with marine oil pollution incidents nationally and in co-operation with other countries.** OPRC Convention was drafted within the framework of the **International Maritime Organization** (IMO) and adopted in 1990 entering into force in 1995. In 2000 a **Protocol** to the Convention relating to hazardous and noxious substances was adopted.

Sustainable Development Goal 14 -Life Below the water

It states, conserve and sustainably use the oceans, seas and marine resources for sustainable development. Some of the targets under SDG 14 are;

- By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution
- 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, to achieve healthy and productive oceans
- Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels, etc

Land-based pollution – Points of origin

- **Municipal, industrial and agricultural wastes and run-off account for as much as 80 percent of all marine pollution.**
- Sewage and wastewater, persistent organic pollutants (including pesticides), heavy metals, oils, nutrients, and sediments – whether brought by rivers or discharged directly into coastal waters – take a severe toll on

human health and well-being as well as on coastal ecosystems. The result is more carcinogens in seafood, more closed beaches, more red tides, and more beached carcasses of seabirds, fish and marine mammals.

- The first regional steps to deal with this widespread problem were taken in the Mediterranean, with the adoption of the **Protocol on Land-Based Sources of Pollution in May 1980**

The enormity of pollution – Ocean bed and ocean surface pollution

- By 2050, according to a **2017 U.N report, there will be more plastic in the ocean than fish** if plastic use continues at its current rate.
- And a new study shows there's hardly a spot left in the oceans not affected. A review of deep ocean dives over the last 35 years reveals a startling degree of plastic debris in the remotest depths of the seas.
- **Deep-Sea Mining: The IUCN** mentions that depleting terrestrial deposits and rising demand for metals are stimulating interest in the deep sea, with commercial mining imminent. (Deep-sea mining is the process of retrieving mineral deposits from the deep sea – the area of the ocean below 200 m)
- The scraping of the seafloor and pollution from mining processes can wipe out entire species – many yet to be discovered.
- **Pollution:** Species such as whales, tuna and sharks could be **affected by noise**, vibrations and **light pollution caused by mining equipment** and surface vessels, as well as potential leaks and spills of fuel and toxic products.
- By their very nature—with all streams flowing to rivers, all rivers leading to the sea—the oceans are the endpoint for so much of the pollution we produce on land, however, far from the coasts, we may be. And from

dangerous carbon emissions to choking plastic to leaking oil to constant noise, the types of ocean pollution humans generate are vast. As a result, collectively, our impact on the seas is degrading their health at an alarming rate.

- **The trash in the ocean:** The majority of the garbage that enters the ocean each year is plastic—and here to stay.
- **Oil from boats, airplanes, cars, trucks,** and even lawnmowers is also swimming in ocean waters.
- **Chemical discharges from factories, raw sewage** overflow from water treatment systems, and stormwater and **agricultural runoff** add other forms of marine-poisoning pollutants to the toxic brew

Microplastic a threat to the marine ecosystem and Human being?

- A study by IUCN mentions that Invisible plastic particles from textiles and tyres a major source of ocean pollution.
- Tiny plastic particles washed off products such as synthetic clothes and car tyres could contribute up to 30% of the 'plastic soup' polluting the world's oceans and – in many developed countries – are a bigger source of marine plastic pollution than plastic waste, according to a new IUCN report

Global releases of primary microplastics to the world oceans(as identified by IUCN)



- Microplastics are generally referred to particles with a size lower than 5 mm. These microplastics are tiny plastic granules and used as scrubbers in cosmetics, hand cleansers, air-blasting.
- The threat to the marine ecosystem: nowadays, it is an issue of increasing scientific concern because these microparticles due to their small size are easily accessible to a wide range of aquatic organisms and

ultimately transferred along with food web.

- The chronic biological effects in marine organisms results due to the accumulation of microplastics in their cells and tissues.
- The potential hazardous effects on humans by alternate ingestion of microparticles can cause alteration in chromosomes which lead to infertility, obesity, and cancer.
- Plastic pollution has a significant social, economic and ecological impact. Marine plastics threaten ocean health, human health, food safety and coastal tourism as well as contribute to climate change.

Bangkok Declaration on Combating Marine Debris in ASEAN Region

Recently Leaders from the members of the Association of Southeast Asian Nations (ASEAN) adopted Bangkok Declaration on **Combating Marine Debris in ASEAN Region** during the 34th ASEAN Summit.

Key highlights of the declaration

- With this, the **leaders agree to encourage an integrated land-to-sea approach** to prevent and reduce marine debris, and strengthen national laws and regulations as well as enhance regional and international cooperation including on relevant policy dialogue and information sharing, according to the Bangkok Declaration.
- The declaration also mentioned that these leaders would **promote innovative solutions to enhance plastics value chains and improve resource efficiency**, strengthen research capacity and application of scientific knowledge, accelerate advocacy and actions to increase public awareness and participation.
- The leaders also welcome the **ASEAN Framework of Action on Marine Debris** of the Special ASEAN Ministerial Meeting on Marine Debris held on March 5, and encourage the ASEAN member states to timely implement the

framework.

- According to the framework of action released recently, the ASEAN member states recognize the urgent need to take action and have made notable progress in combating marine debris.
- The **framework comprises four priority areas, namely;**
 1. Policy support and planning.
 2. Research, innovation and capacity building.
 3. Public awareness, education, and outreach, and
 4. Private sector engagement