

Forum: Environmental Committee

Issue: Addressing Marine Plastic Litter and Micro Plastics – Responsibility and Action

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Introduction

With the first report addressed in the 1970s on the issue of Marine Plastic Litter and Micro-plastics when there were seen as insignificant terms, however such issue has alarmed major organisations and people in the region. With a critical figure of marine plastic litter and micro plastics distribution did not only raise issues of environmental, economical, social concerns but also boils down to the matter of food chain and animal extinction. Weathering and disintegration —unfavourable natural characteristics leads to a slow decrease in the size of the particles, which made the plastics easier to consume. Vice Versa, it also increases the surface area of the particles of the litters, which means that there is more opportunity for the particles to either absorb chemicals or to release them, through a process called chemical exchange. Hence, with cases brought forward: Environmental, economical, social and animal protection, it now the obligation we should take as collective intelligence and responsibility in the Environmental Committee to mitigate and cease the byproduct human plastic consumerism.

Definition of Key Terms

The Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, usually known as the Basel Convention, is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries. It does not, however, address the movement of radioactive waste. The Convention is also intended to minimize the amount and toxicity of wastes generated, to ensure their environmentally sound management as closely as possible to the source of generation, and to assist LDCs in environmentally sound management of the hazardous and other wastes they generate.

Conference of the Parties

The COP is the supreme decision-making body of the Convention. All States that are Parties to the Convention are represented at the COP, at which they review the implementation of the Convention and any other legal instruments that the COP adopts and take decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements.

Annexes of the Convention

The annexes of the Convention is a set of regulations imposed on ships in order to prevent pollutants (toxic human disposals and liquid harmful chemical), the regulations are as listed below:

Annex I Regulations for the Prevention of Pollution by Oil (entered into force 2 October 1983)

Covers prevention of pollution by oil from operational measures as well as from accidental discharges; the 1992 amendments to Annex I made it mandatory for new oil tankers to have double hulls and brought in a phase-in schedule for existing tankers to fit double hulls, which was subsequently revised in 2001 and 2003.

Annex II Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk (entered into force 2 October 1983)

Details the discharge criteria and measures for the control of pollution by noxious liquid substances carried in bulk; some 250 substances were evaluated and included in the list appended to the Convention; the discharge of their residues is allowed only to reception facilities until certain concentrations and conditions (which vary with the category of substances) are complied with. In any case, no discharge of residues containing noxious substances is permitted within 12 miles of the nearest land.

Annex III Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form (entered into force 1 July 1992)

Contains general requirements for the issuing of detailed standards on packing, marking, labelling, documentation, stowage, quantity limitations, exceptions and notifications. For the purpose of this Annex, “harmful substances” are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code) or which meet the criteria in the Appendix of Annex III.

Annex IV Prevention of Pollution by Sewage from Ships (entered into force 27 September 2003)

Contains requirements to control pollution of the sea by sewage; 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 has to be discharged at a distance of more than 12 nautical miles from the nearest land.

Annex V Prevention of Pollution by Garbage from Ships (entered into force 31 December 1988)

Deals with different types of garbage and specifies the distances from land and the manner in which they may be disposed of; the most important feature of the Annex is the complete ban imposed on the disposal into the sea of all forms of plastics.

Annex VI Prevention of Air Pollution from Ships (entered into force 19 May 2005)

Sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances; designated emission control areas set more stringent standards for SO_x, NO_x and particulate matter. A chapter adopted in 2011 covers mandatory technical and operational energy efficiency measures aimed at reducing greenhouse gas emissions from ships.

Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants is a multilateral environmental agreement to protect human health and the environment from chemicals, known as POPs. POPs have harmful impacts on human health or on the environment. The treaty was signed in 2001 and effective from May 2004.

UN Convention on the Law of the Sea (UNCLOS)

The United Nations Convention on the Law of the Sea (UNCLOS), also called the Law of the Sea Convention or the Law of the Sea treaty, is the international agreement that resulted from the third United Nations Conference on the Law of the Sea (UNCLOS III), which took place between 1973 and 1982.

Toxic compounds or PBTs

Chemicals that are persistent in the environment, bioaccumulate in people and/or wildlife, and are toxic are called PBTs. Because of these features, as long as they remain in commerce and may therefore be released into the environment, they will threaten the health of humans and wildlife.

Rotterdam Convention

The Rotterdam Convention is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans. Signatory nations can decide whether to allow or ban the importation of chemicals listed in the treaty, and exporting countries are obliged to make sure that producers within their jurisdiction comply.

Micro-plastics

Micro-plastics are small plastic pieces less than five millimeters long which can be harmful to our ocean and aquatic life.

Background Information

General Overview

Environmental: mortality or sub-lethal effects on plants and animals through entanglements, captures and entanglement from ghost nets, physical damage and ingestion including uptake of micro-particles (mainly micro-plastics) and the release of associated chemicals, facilitating the invasion of alien species, altering the structure of communities living on the seafloor. Plastics may contain potentially hazardous substances, including additives such as plasticisers and flame retardants, or may be contaminated by hazardous substances. As a result, plastic wastes may pose a risk to human health and marine ecosystems as marine plastic litter and micro plastics.

While these chemicals and their potential effects on organisms in the environment are well known, the way they interact with plastics once they are in the gut of animals is less known. The fact that such chemicals have been identified in plastics in the open ocean could on its own indicate that there is the potential for harm. However, this should be balanced by the knowledge that even in the absence of plastics, these contaminants are present in the environment and accumulate within the food chain. The real unknown is to what extent plastics increase exposure of organisms to contaminants.

Major Countries and Organizations Involved

The FAO (Food and Agriculture Organization of the United Nations)

Is a specialized agency of the United Nations that leads international efforts to defeat hunger. It acts as a neutral forum where all nations meet as equals to negotiate arguments and debate policy. It helps countries modernize and improve agriculture, forestry and fisheries practices, ensuring good nutrition and food security.

Germany

Germany, supported by the Seychelles, stressed the need for a harmonized policy response focused on existing mechanisms, including regional seas organizations, and urged addressing the gaps in science and regulation within these mechanisms. Switzerland preferred a focus on the relationship between governance and existing barriers, the role of existing mechanisms and instruments, and how to address geographic governance gaps. Mauritania called for an international conference to develop an internationally legally binding instrument to address marine litter and microplastics.

Fiji

Fiji stressed the need to demonstrate political will by elaborating an internationally legally binding instrument on marine litter and micro-plastics.

Canada

Canada is using its Group of Seven (G7) presidency to campaign for a zero-plastic-waste charter, building on goals to have 100% reusable, recyclable or compostable packaging.

Iran

Iran said since combating marine litter and micro-plastics is an urgent issue, then a new legally binding instrument is not the solution due to the time it takes to negotiate a new instrument, citing the 13-year negotiations towards a legally binding instrument under the UN Convention on the Law of the Sea (UNCLOS) on use of biological diversity in the high seas.

Spain

Spain noted that although existing mechanisms are already addressing certain aspects of waste management, citing the efforts of the Basel Convention, Stockholm Convention, and the Regional Seas Conventions, there is a need for an overall global instrument to better coordinate efforts to address marine litter and alternatives to plastics. Stressing that the solution to addressing marine litter requires global and transboundary action.

Liberia

Liberia noted that UNCLOS only addresses some aspects of pollution in the protection of the marine environment. The Food and Agriculture Organization of the UN (FAO) informed delegates that the next session of the Committee on Fisheries will discuss guidelines for minimizing abandoned, lost or otherwise discarded fishing gear.

Switzerland, Iran, Peru

Switzerland, with Iran, Norway and Peru, said the cost of inaction is always higher than the cost of response actions.

Denmark

Denmark called for a more detailed quantitative analysis in order to better understand the options.

The Netherlands

The Netherlands said where data is deficient, the precautionary principle should be applied since marine resources are a common heritage for mankind.

Greece

Greece supported applying the precautionary principle noting that the health impacts of microplastics will multiply if nothing is done.

Brazil

Brazil, supported by Greece, said combating marine litter would have co-benefits for addressing other marine pollutants.

Bangladesh

Bangladesh noted that alternatives to plastic carrier bags are proving to be more expensive and are thus not a choice by most consumers.

USA

The US said studies have shown that the price for alternatives to some plastics can be as high as four times, and noted that some alternatives also contain harmful substances.

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

The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

UNEP

The United Nations Environment Programme, an agency of the United Nations, coordinates the organization's environmental activities and assists developing countries in implementing environmentally sound policies and practices.

Timeline of Events

Date	Description of event
1992	The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
2015 September 25	The opening progress of the Basel Convention Open-ended Working Group

2017	The thirteenth meeting of the Conference of the Parties (COP) — to further address marine plastic litter and microplastics
29 November - 1 December <i>and</i> 4-6 December 2017	3rd Meeting of the Open-ended Committee of Permanent Representatives to UN Environment (OECPR-3) <i>and</i> 3rd Session of the UN Environment Assembly (UNEA-3)
24 April - 5 May 2017	2017 Meetings of the Conferences of the Parties to the Basel, Rotterdam and Stockholm Conventions
5-9 June 2017	The Ocean Conference - Our Oceans, Our Future: Partnering for the Implementation of SDG 14
Nairobi, 11–15 March 2019	United Nations Environment Assembly of the United Nations Environment Programme Fourth session: Progress in the implementation of resolution 3/1 on pollution mitigation and control in areas affected by armed conflict or terrorism
Nairobi, 11–15 March 2019	NEP Forth session: Implementation Plan “Towards a Pollution-Free Planet”

UN Involvement

UNEP has published a review of their global initiative on marine litter which revealed “a widespread lack of systematic, scientific knowledge on the amounts, sources, fates, trends and impacts (social, economic and environmental) of marine litter, which hampers development and implementation of effective mitigation actions”.

IOC and UNEP (Regional Seas Programme) have developed a set of guidelines for conducting consistent survey and monitoring programmes (UNEO/IOC, 2009) to assist policy makers and support efforts by regions, countries, Regional Seas Programmes and other relevant organizations to address the problem of monitoring and assessment of marine litter. These guidelines include a comparative analysis of information from around the world on existing experience and methods for surveys, monitoring, reporting protocols and assessment of marine litter. UNEP has also produced guidelines on the use of market-based instruments to address the problem of marine litter (UNEP 2009b). Despite these initiatives, there are still large gaps in our knowledge of marine debris, in particular micro-plastics, regarding inputs and potential impacts, especially at the local level and many questions still to be answered regarding the effectiveness of waste management measures. Capacity building in waste management is an area where much more effort needs to be mobilized. (See UNGA resolution 60/30, paragraph 12) Many regions have identified marine litter as a problem, but the overriding issue remains the absence of, or poorly developed, waste management systems in large parts of the world. A key question is how to best distribute recently accumulated knowledge to the areas where it is most needed

and how to best influence policy and decision-makers. The tendency to advocate actions such as classical monitoring programmes for marine (plastic) litter may not be the best use of scarce resources when considered globally. A clearer focus on specific areas, e.g. 'hot spots', might translate more quickly and effectively into policy decisions. All forms of marine litter need to be assessed, not just plastics, and structured monitoring activities need to be established in key areas – not every mile of coastline needs to be monitored. Hot spots need to be associated with management issues, which will help align such efforts with policy development.

Relevant UN Treaties and Events

- Technical guidelines for the identification and environmentally sound management of plastic wastes and for their disposal (**The Conference Of Parties 2002**)
- 2/11. Marine Plastic Litter and micro-plastics (**UNEP/EA.2/Res.11**)
- Inclusion in the SPAMI List of: the Miramare Marine Protected Area (Italy), the Plemmirio Protected Area (Italy), the Tavolara - Punta Coda Cavallo Marine Protected Area (Italy) and the Marine Protected Area and Natural Reserve of Torre Guaceto (Italy) (**UNEP(DEPI)/MED IG.17/10 Annex V**)

Previous Attempts to solve the Issue

Agreements on the use of plastic products:

- a. Legislation to ban single use plastic bags
- b. Legislation to ban and substitute micro-plastics in personal care and cosmetic products (microbeads)
- c. Promotion of use of biodegradable plastics and legislation to ban oxy- degradable plastics
- d. Use of Eco-labelling and information on kind and amount of micro- plastics on products
- e. Legislation to avoid non-degradable flushable sin waste water
- f. Full application of waste legislation and related actions to reduce direct waste losses
- g. Innovative research for improved technologies, e.g. for laundry washing and textile finishing.

Agreements on Customers' awareness:

Awareness raising campaigns among citizens (customers, schools, retail sector ...) on sources and impacts can add to reduce spills of plastic litter, such as:

- a. Drinking tap water decreases plastic bottles use

- b. Flushing waste down the toilet should be avoided
- c. Micro bead sin products or personal care products should be avoided.

Possible Solutions

Cross-nation organisation and intergovernmental cooperations:

Delegates, it is highly recommended to promote diplomatic relationships between nations on world-wide issues. In such case, it is suggested that the MEDCs (More Economically Developed Countries) to support the LEDCs (Less Economically Developed Countries). The reason is because that countries such as Norway and Sweden has the most efficient technologies which helps to turn plastic products into reusable materials/products and decomposes harmful substances to prevent the spread of hazardous elements into the environment. Moreover, NGOs (Non-Governmental Organisations) will also play a crucial rule in such matter. It cannot be ignored that the ambiguity of the governments' work could led to corruption and bribery. Hence, the NGOs will play the rule of a monitor to restrain devious businesses to promote transparency and efficiency.

The promotion of public awareness, education and workshops organised by official parties:

To promote public awareness will allow the people to have a deep understanding and regard of such vile plight in order to (but not limited to):

- a. Spread words to other people
- b. Prevention of further environmental damage
- c. Will value healthy environments

Education for all ages (especially the younger generations) will help to achieve an optimum goal, because the idea of being environmental friendly is a credited behaviour that is urged to be passed down to future generations.

Workshops organised by UNESCO (United Nations Educational, Scientific and Cultural Organisation) or relevant governmental parties to set up entertaining campaigns to gather more audiences to spread words.

The establishment of local parties, civil and international cooperative organisations (A stable administrative hierarchy):

Local parties can be regarded similar as the raising awareness campaign, the local people in the community may gather together and set up a (i.e.)voluntary group where they will be going to local beaches to clean up trash by the shore.

Civil Organisations is akin to the concept of local parties, however, civil organisations can be organised to aim to work closely with governmental departments to report statistics and datas on the number of wastes gathered (provided by the local parties) and the number of members involved.

International cooperative organisation will be highly effective and sets at the very top of the organisational hierarchy, this will be an organisation where it would gather voluntary scientists around the globe to work together to come up with solutions toward Marine Plastic Litter (MPL) and microplastics and to turn the wastes into recycled product working closing under the goal of the three Rs (Reduce, Reuse and Recycle).

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