Resolution on Marine Litter: Plastics

BACKGROUND:

The North Sea Commission’s Marine Resources Group has initially identified marine litter as a priority issue during the General Assembly of the CPMR in Helsinki (19th - 20th of October 2017). It resulted in the adoption of the amendment on marine litter to the CPMR’s Final Declaration.

Consequently, CPMR organised the first meeting on marine litter on the 31st of January 2018 in Brussels as a follow up on the Marine Resources Group proposal. A second workshop was organised on April 10th. The goal is to develop both a CPMR Manifesto on marine litter as well as a dedicated resolution for the North Sea Region.

The purpose of this paper is to express our profound concern and raise awareness about the impacts of marine litter on the North Sea Region and to call for action.
1. Introduction

Every year more than 8 million tonnes of plastics end up in the oceans\(^1\), making it the world’s biggest landfill. Not a pretty picture and far from the ambition to free our oceans from plastics. The North Sea is a particularly complex and open ecosystem, providing a nursery for fish and migratory and wintering areas for many species of birds but it is also one of the most heavily used seas, supporting fishing, shipping, trade, energy, sand mining and recreation. And the fact is: the North Sea Region is dealing with a continuous rise of marine litter and plastics.

Plastic is an important and ever-present material in our economy and daily lives. It has multiple functions that help tackle a number of the challenges facing our society. Light and innovative materials in cars or planes save fuel and cut CO\(_2\) emissions. High-performance insulation materials help us save on energy bills. In packaging, plastics help ensure food safety and reduce food waste. Combined with 3D printing, bio-compatible plastic materials can save human lives by enabling medical innovation. However, too often the way plastics are currently produced, used and discarded fails to capture the economic benefits of a more 'circular' approach and consequently, harms the environment. Therefore there is an urgent need to tackle the environmental problems by focusing on the production, use, consumption and reuse of plastics\(^2\). It simply is too easy to use and waste plastics.

1.1. Marine Litter and plastics

Marine litter covers any solid material which has been deliberately discarded, or unintentionally lost on beaches and on shores or at sea, including materials transported into the marine environment from land by rivers, draining or sewage systems or winds. It includes any persistent, manufactured or processed solid material. Evidence show that Marine litter originates from different sea- and land-based sources and it consists of a wide range of materials, including plastic, metal, wood, rubber, glass and paper. It is a complex story.

Although the relative proportions of all these materials vary regionally, there is clear evidence that plastic litter is by far the most abundant type. In some locations plastics make up 90 % of marine litter of shorelines in the North Sea Region. A similar predominance of plastics is reported from sampling at the sea surface and on the seabed.

Most plastics are extremely durable materials and persist in the marine environment for a considerable period, possibly as much as hundreds of years. However, plastics also deteriorate and fragment in the environment as a consequence of exposure to sunlight (photo-degradation) in addition to physical and chemical deterioration. This breakdown of larger items results in numerous tiny plastic fragments, which, when smaller than 5mm are called secondary micro plastics.

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\(^1\) [https://plasticoceans.org/the-facts/](https://plasticoceans.org/the-facts/)
\(^2\) [https://www.ospar.org/documents?v=38018](https://www.ospar.org/documents?v=38018)
Other micro plastics that can be found in the marine environment are categorised as primary micro plastics due to the fact that they are produced either for direct use, such as for industrial abrasives or cosmetics or for indirect use, such as pre-production pellets.

Marine litter is certainly not only an aesthetic problem but incurs socioeconomic costs, threatens human health and safety and impacts marine organisms. It is broadly documented that entanglement in, or ingestion of, marine litter can have negative consequences on the physical condition of marine animals and even lead to death. Ingestion of micro plastics is also of concern as it may provide a pathway for transport of harmful chemicals into the food web. Additionally, marine litter is known to damage and degrade habitats (e.g. in terms of smothering) and to be a possible vector for the transfer of alien species.³

1.2. Current situation North Sea Region

The quantity of plastics ingested by marine wildlife mainly reflects the abundance of floating litter in their environment. OSPAR (OSPAR is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic) therefore monitors and assesses plastics in the stomachs of northern fulmars as one of its indicators of environmental quality. Fulmars are abundant and widespread seabirds known to regularly ingest litter, with nearly all individuals having at least some plastic in their stomachs. Although fulmars forage near the water surface, their stomachs may also contain items from deeper water or items that may be indirectly ingested through their prey.⁴

An average of 18,000 plastic particles are found on every square kilometer of the North Sea surface. Around 800 marine species are known to be negatively affected by contact with marine litter. The most obvious effects are ingestion of and entanglement in marine litter.

The majority of beached dead fulmars on Germany's North Sea coast has more than 0.1 g of plastic waste in their stomachs. In 2008 the Contracting Parties to OSPAR decided as one of its so-called Ecological Quality Objective (EcoQO) that the percentage of beached fulmars having more than 0.1 g of plastic in their stomachs should be 10 % at the maximum (see graph below).⁵

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³ Regional Action Plan OSPAR: https://www.ospar.org/documents?v=38018
It is clear that marine litter results from human actions and behaviour, whether intentional or unintentional. It essentially is the result of poor waste management, inadequate infrastructure and lack of public knowledge about the potential consequences of inappropriate waste management (UNEP 2009).

Fortunately, awareness about this problem is increasing and the effects of marine litter are becoming more and more visible to the public eye. Many “beach clean-up” projects have been developed and organisations like KIMO (KIMO is an international organisation of coastal municipalities with a shared concern for the state of the environment, which works to achieve cleaner, safer, sustainable seas) and OSPAR help local communities and regions in their approach to the Marine Litter problem. The European Commission has also (in January 2018) launched the first-ever Europe-wide plastics strategy. The ambition is that all plastic packaging on the EU market will be recyclable or reusable by 2030.

Concluding
It is important to transform the way plastics are designed, produced, used and recycled. All actors at global, national, regional and local level have to join to enable a sustainable impact. For instance by supporting businesses in developing innovations because it is clear that companies play a key role in making this happen as well, with their strategies and investment decisions. So do consumers with their choices and behaviour. In short: we all have a shared responsibility and since the sources of marine litter are very diverse and the dynamics of the North Sea Region turn it into a transboundary issue, it requires collective action.

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6 http://www.kimointernational.org/ and https://www.ospar.org/work-areas/eiha
7 EU Strategy for Plastics
8 http://governmentgazette.eu/?p=7697
RECOMMENDATION:

The North Sea Commission recommends:

- The North Sea Commission expresses profound concerns and sees marine litter, particularly plastics, as an important priority to tackle across borders in order to maintain a sustainable North Sea Region marine environment, both at open sea, the shoreline and the sea bed.
- The North Sea Commission will support the preparation of the CPMR Manifesto on Marine Litter and Plastics.

The NSC Marine Resources Group therefore wishes to draw the attention on the following:

- The key to addressing the issue of marine plastic pollution is the importance of cooperation beyond municipal and regional borders: international cooperation is necessary.
- Ensure awareness of the Marine Litter problem and the importance of funding to take actions to mitigate pollution and restore the health of the North Sea.
- Sharing examples of successful projects and best practices to members is needed to raise awareness (such as KIMO’s Fishing for Litter initiative and many other initiatives).
- Synergies with cross-sectoral range of businesses and organisations should be explored which are instrumental to finding innovative ways to take action against plastic pollution.
- Encourage green procurement: offer alternatives to plastics and produce/use plastics which are designed to allow for greater durability, reuse and high-quality recycling.
- Identify measures of the European Action Plan on plastics to be implemented in each region, including ways to minimize the influx.
- Make better use of our observer status in OSPAR.