

MAY 2018

MARINE PLASTICS

- Over **300 million tons of plastic are produced every year** for use in a wide variety of applications.
- At least 8 million tons of plastic end up in our oceans every year, and **make up 80% of all marine debris from surface waters to deep-sea sediments.**
- Marine species **ingest or are entangled by plastic debris, which causes severe injuries and deaths.**
- Plastic pollution **threatens food safety and quality, human health, coastal tourism, and contributes to climate change.**
- There is an urgent need to **explore the use of existing legally binding international agreements** to address marine plastic pollution.
- **Recycling and reuse** of plastic products, and **support for research and innovation to develop new products to replace single-use plastics** are also necessary to prevent and reduce plastic pollution.

What is the issue?

Plastic is a synthetic organic polymer made from petroleum with properties ideally suited for a wide variety of applications, including packaging, building and construction, household and sports equipment, vehicles, electronics and agriculture. Plastic is cheap, lightweight, strong and malleable. Over 300 million tons of plastic are produced every year, half of which is used to design single-use items such as shopping bags, cups and straws.

At least 8 million tons of plastic end up in our oceans every year. Floating plastic debris are currently the most abundant items of marine litter. Waste plastic makes up 80% of all marine debris from surface waters to deep-sea sediments. Plastic has been detected on shorelines of all the continents, with more plastic materials found near popular tourist destinations and densely populated areas.

The main sources of marine plastic are land-based, from urban and storm runoff, sewer overflows, beach visitors, inadequate waste disposal and management, industrial activities, construction and illegal dumping. Ocean-based plastic originates mainly from the fishing industry, nautical activities and aquaculture.

Under the influence of solar UV radiation, wind, currents and other natural factors, plastic fragments into small particles, termed microplastics (particles smaller than 5 mm) or nanoplastics (particles smaller than 100 nm).

Why is this important?

Plastic pollution is the most widespread problem affecting the marine environment. It also threatens ocean health, food safety and quality, human health, coastal tourism, and contributes to climate change.

CONSIDERED SOURCES

YEARLY WORLD CONSUMPTION AND TYPE OF LOSS

SOURCES	WORLD CONSUMPTION <small>KTONS / YEAR OF PLASTIC</small>	INTENTIONAL LOSS	REFERENCES
 PLASTIC PELLETS	257,000	NO	Plastics Europe (2007)
 SYNTHETIC TEXTILES	42,534	NO	FAO/ICAC (2013)
 TYRES	6,431	NO	ETRma (2010)
 ROAD MARKINGS	588	NO	Grand View Research, Inc. (2016)
 MARINE COATINGS	452	NO	Coatings world (2012)
 PERSONAL CARE PRODUCTS	42	YES	Leslie, H.A. (2015)

Microplastic sources based on [global consumption of plastics of just over 300 million tons](#). Credit: IUCN 2017: p. 14

Impacts on marine environment

The most visible and disturbing impacts of marine plastics are the ingestion, suffocation and entanglement of hundreds of marine species. Marine wildlife such as seabirds, whales, fishes and turtles, mistake plastic waste for prey, and most die of starvation as their stomachs are filled with plastic debris. They also suffer from lacerations, infections, reduced ability to swim, and internal injuries. Floating plastics also contribute to the spread of invasive marine organisms and bacteria, which disrupt ecosystems.

Impacts on food and health

Invisible plastic has been identified in tap water, beer, salt and are present in all samples collected in the world's oceans, including the Arctic. Several chemicals used in the production of plastic materials are known to be carcinogenic and to interfere with the body's endocrine system, causing developmental,

