

Marine Waste

Before you Begin

Marine debris or marine litter, is human-created waste that has deliberately or accidentally been released in a lake, sea, ocean or waterway. Marine debris is anything that does not belong in the ocean, that could range from abandoned ships to tiny plastic fibers from clothes. Floating oceanic debris tends to accumulate at the center of gyres (a large system of circulating ocean currents) and on coastlines. Waste is today also being deliberately dumped into the oceans and this deliberate disposal of wastes at sea is called ocean dumping.

Plastics are a major source of global marine pollution. Once plastic particles reach the marine environment, wind and global ocean currents can spread them around the world. As a result, plastics are dispersed across all oceans, and can be found in remote locations such as the Arctic, Southern and deep oceans. Ocean plastic pollution is an alarming issue due to its persistence, complexity, steady growth and the pervasive impacts it has on all aspects of ecosystems. The problem requires holistic environmental remediation solutions at a global scale.

Ocean plastic pollution has received increased attention in recent years. Including in the recent policies and programmes of the United Nations Organisations.

Sources of marine plastic

According to currently available estimate, 80 percent of marine plastic pollution originates from land-based sources with the remainder coming from ocean-based sources.

Land based sources	Ocean based sources
<ol style="list-style-type: none">1. Illegal dumping and inadequate waste management2. Industrial activity3. Insufficiently filtered wastewater4. Coastal littering5. Discharge of stormwater6. Combined sewer overflows7. Natural disasters	<ol style="list-style-type: none">1. Fishing2. Shipping3. Offshore oil and gas platforms; undersea explorations

Source: (https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/The-ocean-plastic-pollution-challenge-Grantham-BP-19_web.pdf)

Microplastics

Plastic marine debris less than 5 mm is classified as microplastics. Microplastics come from a variety of sources, including from larger plastic debris that degrades into smaller and smaller pieces.

In addition, microbeads, a type of microplastic, are very tiny pieces of manufactured polyethylene plastic that are added as exfoliants to health and beauty products, such as some cleansers and toothpastes. These tiny particles easily pass through water filtration systems and end up in the ocean and lakes, posing a potential threat to aquatic life.

Microbeads are not a recent problem. According to the United Nations Environment Programme, plastic microbeads first appeared in personal care products about fifty years ago, with plastics increasingly replacing natural ingredients. As recently as 2012, this issue was still relatively unknown, with an abundance of products containing plastic microbeads available in the market and lack of awareness on the part of consumers.

Many countries have started addressing this problem.

On December 28, 2015, President Obama signed the Microbead-Free Waters Act of 2015, banning plastic microbeads in cosmetics and personal care products.

Source: <https://oceanservice.noaa.gov/facts/microplastics.html>