

# Development in Brief



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## Marine litter – the pollution of our seas

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A carpet of rubbish the size of Central Europe is floating in the Pacific Ocean. Altogether there is an estimated 100 million tonnes of waste in the world's oceans, and 6.5 million tonnes more are added every year. Some 75% of this rubbish is plastic. This carpet of rubbish cannot usually be seen though, since it largely consists of micro particles floating beneath the surface of the water.

### Marine litter comes predominantly from land

Over 80% of "marine litter" reaches the sea from land through rivers or drainage channels. Packaging, plastic bottles, bottle caps, straws and plastic bags represent the biggest problem, as they can take over 400 years to decompose. From the sea, the main sources of rubbish are fishing and shipping.

### Sea animals die from plastic waste and abandoned nets

Plastic parts have been found in almost 700 different types of sea creatures, from zooplankton up to whales. The animals confuse the rubbish with food. As a result of ingesting micro plastics, environmental toxins and other waste, many of the animals die, suffer internal injuries, or starve to death. In 2013 for example, a pot whale died on the Dutch island of Terschelling. 17 kg of plastic were found in its stomach. Today one can find swallowed plastic parts in 90% of all sea birds according to the United Nations Environment Programme UNEP. In 1960 it was just 5%.

Fishing lines and nets lost by the fishing industry pose an additional threat. Animals often get caught and tangled up in the nets and strangle themselves. A million sea birds and 100,000 marine mammals die every year from the effects of littering in the sea.

Even the incredibly sensitive coral reefs which are so important for the sea are affected: waste which has fallen to the ocean floor upsets the balance and can lead to their death.

### Annual costs: EUR 13 billion

Apart from the serious damage to the environment, the financial consequences are immense: UNEP estimates that every year about EUR 13 billion must be spent on fighting the consequences of littering in the sea.

These damages, which occur worldwide, are very varied: cooling water and filter systems at thermal power plants as well as desalination plants become blocked and must be laboriously cleaned. Damage to hulls and screws occurs on ships. Economic tourism potential can be adversely affected by the pollution of coasts and beaches.

Damage in the fishing industry is caused particularly through contaminated catches. In developing countries and emerging markets especially, fishermen suffer from these consequences of pollution, which entail a considerable loss of income.

### Increased attention to marine littering on the international agenda

At the G7 Summit at Schloss Elmau in June 2015, the "G7 action plan to combat marine litter" was adopted to tackle the global challenge of marine littering. The topic thus became relevant at political level for the first time. This is also reflected in Agenda 2030, in which the fight against marine littering is explicitly recorded as Goal 14.1.

### Tackling causes of marine litter primarily through action on land

The global littering of the oceans has far-reaching consequences for ecosystems, the economy, the food supply and the health of people.

The huge scale and the worldwide spread of marine litter, however, make "cleaning" the seas impossible. This is also because 90% of marine litter is smaller than 1 cm, and more than 70% is found in deeper ocean layers or on the seabed. It means that the oceans cannot simply be fished clean, without disrupting or destroying the ocean's ecosystem.

To reduce marine litter, the causes must be tackled, especially for litter that comes from land. The G7 sees the following measures as key factors:

- Improving national waste disposal
- Reducing waste in production
- Promoting recycling

Specific measures to reduce marine litter, such as the financing of offshore waste management and sewage disposal systems are necessary to counteract the continuing marine littering. This requires initiative and cooperation between political, economic and private players to secure the protection of coasts and seas in the long term. ■

### Literature

McKinsey and Ocean Conservancy (2015): Stemming the Tide. Land-based strategies for a plastic-free ocean.

<http://www.oceanconservancy.org/our-work/marine-debris/mckinsey-report-files/full-report-stemming-the.pdf>