http://www.unep.ch/seas http://marine-litter.gpa.unep.org







The time to act

There are many programmes and organizations dedicated to fighting marine litter in various contexts. Several United Nations organizations (including the International Maritime Organization (IMO), the UN Environment Programme (UNEP), the Intergovernmental Oceanographic Commission of the UN Educational, Scientific and Cultural Organization (IOC of UNESCO) and the Food and Agriculture Organization of the UN (FAO), as well as various regional and global agreements and NGOs are working to combat this long-ignored threat. Ongoing efforts include:

- hazardous waste agreements,
- UNEP Regional Seas Conventions and Action Plans,
- codes of conduct for fisheries,
- · agreements governing disposal of waste by ships,
- programmes of action to protect the marine environment from land-based pollution, and
- numerous other programmes devoted to reducing and eliminating marine litter.

But the solutions are not keeping up with the problems. A number of studies in various regions clearly indicate that the environmental impacts of marine litter are getting worse.

The negative consequences for marine and coastal ecosystems, and for the people and wildlife who depend on them, are also growing. In many cases they may prove irreversible.



Marine litter is more than an environmental problem, to be addressed by action plans and legislation. It is also a cultural problem, and must be addressed by efforts to change attitudes, behaviours, and management approaches. This requires the involvement of everyone, from governments to businesses to the public at large. We all have a role to play in this regard, by helping to build awareness of the damage done by litter to our seas and their wildlife, and to the people who use and depend on them.



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Tightening the noose

The growing threat of

marine litter





Marine litter – solid waste or debris disposed of in the marine or coastal environment – is an environmental, economic, cultural, health, and aesthetic problem.

Coastal waste dumps, municipal wastewater discharges, rivers, industrial facilities, merchant ships, fishing vessels, cruise ships, offshore oil and gas platforms, and even people going about their daily lives – all contribute to this mounting crisis.



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It's everywhere...

Marine litter is found in all the seas of the world, from populated coastal zones to remote islands to the polar icecaps. It spoils tourist beaches, defaces our ports and estuaries, and confronts sailors in mid-ocean. It is found in salt marshes and estuaries, in mangrove forests, on coral reefs, and on every beach and rocky coast on Earth. Marine litter can be blown long distances by winds, float at the water's surface, drift in the water column, catch a ride with deep ocean currents, or sink to the seabed.



... and in huge quantities

- In 1997, the US Academy of Sciences estimated the total input of marine litter into the oceans worldwide at approximately 6.4 million tonnes per year.
- According to other calculations, some eight million items of marine litter have been estimated to enter the sea every day, about five million of which have been thrown overboard or lost from ships.
- In 2002 more than 390,000 volunteers in 100 countries took part in the International Coastal Cleanup, organized by the Ocean Conservancy



(a US NGO). They removed marine litter from more than 21.000 kilometres of coastline and waterways, collecting more than 6.2 million pieces of litter weighing over 4,000 tonnes.



A vicious killer

Marine litter kills and injures marine mammals, birds, turtles, fish and even invertebrates. It threatens marine and coastal biological diversity by disturbing essential, productive ecosystems.

Marine litter:

- harms wildlife directly through entanglement and ingestion, the two main types of direct damage,
- smothers the seabed and disturbs habitats,
- is a source of persistent toxic chemicals in the ocean, particularly from plastics, and
- transports invasive species between seas.

Indirect effects include habitat destruction from mechanical beach cleaning.

> Ocean researchers found 13,000 pieces of plastic per square kilometre on the open seas.





Social and economic costs



Marine litter:

- sea,





Every year, marine litter takes a great social and economic toll on people and communities around the world.

• spoils the beauty of the sea and the coastal zone, interferes with fishing and damages fishing boats and gear, blocks cooling water intakes in power stations, • contaminates beaches, commercial harbours and marinas, injures livestock on coastal grazing land, • interferes with ships and pleasure boats, causing accidents at

• is a serious hazard to human health, particularly when composed of medical and sanitary waste,

 damages local economies by contaminating fish catches and driving away tourists, and

costs billions of US\$ every year to clean up.