

# Sustainable Development Goals



Policy Brief



## Oceans: Marine pollution

### About

The **Sustainable Development Goals Policy Briefs** highlight a hotspot of environmental change. The evidence provided builds on the scientific data and information hosted on the online platform Environment Live and is complemented by stories collected around the world. Readers may find out what is happening to their changing environment and the consequences of everyday choices; and think about future directions for policy in the framework of the 2030 Agenda for Sustainable Development.

**Marine pollution** is the result of deliberate or accidental discharge of untreated wastewater, dumping of solid wastes and other polluted runoff from a variety of land-based activities directly into our rivers and coastal waters. Healthy oceans are productive oceans, and resilient marine and coastal ecosystems are essential to achieve sustainable development.



UN Environment as Custodian Agency for some key indicators related to "Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development"

- 14.1.1 Index of Coastal Eutrophication (ICEP) and Floating Plastic debris Density
- 14.2.1 Proportion of national Exclusive Economic Zones managed using ecosystem based approaches
- 14.5.1 Coverage of protected areas in relation to marine areas

### Keep the oceans clean

**An integrated approach to address pollution from land to ocean is needed to sustainably manage marine and coastal resources**



Addressing marine pollution helps achieving:

- **SDG 2** Zero Hunger
- **SDG 3** Good Health and Well-Being
- **SDG 6** Clean Water and Sanitation
- **SDG 12** Responsible Consumption and Production
- **SDG 14** Life Below Water
- **SDG 15** Life on Land

Joining the **#CleanSeas** campaign accelerates the global efforts to tackle marine litter



# Facts and figures

## Main contributors to marine pollution

- +37%** increase in domestic material consumption in 20 years
- 322 million tonnes** of plastic produced in 2015
- 270 billion m<sup>3</sup>** of municipal wastewater produced annually where in many parts of the world as much as 80% is discharged untreated
- 123 kg** of fertilizers per hectare of arable land consumed in 2013 with low use efficiency, losses to the environment can be as high as 80%
- 116** chemical and oil spills occurred worldwide as a result of industrial accidents between 1967 and 2016

**>8 million tonnes of plastic leak into the ocean every year**

Ingestion and entanglement from marine litter harms over **600** marine species, of which **15%** are endangered

Nutrient pollution from excess fertilizers and manure are the primary sources of nitrogen loads in marine ecosystems, causing an over-enrichment process called eutrophication. This involves a shift from seagrasses to fast-growing harmful algae that consume oxygen and can cause fish and invertebrate deaths.

**16%** of Large Marine Ecosystems at high risk of eutrophication. Most of these are located in Western Europe, Southern and Eastern Asia and the Gulf of Mexico

**13%**  
National Exclusive Economic Zones protected

**45%**  
Marine key biodiversity areas protected

# Action

## Towards solutions ...

**109** Countries committed to a **Global Programme of Action** for the Protection of the Marine Environment from Land-Based Activities

**143+** Countries have **joined 18 Regional Seas Conventions and Action Plans**, of which

- 5** already have an indicator-based monitoring mechanism in place
- 12** already issued Protocols or Annexes on Land-Based Sources of pollution

**30** Countries already joined the **#CleanSeas** campaign on marine litter

... for achieving **SUSTAINABLE DEVELOPMENT GOALS**

Recovery of nutrients  
Fertilizer use efficiency

Improved plastic management  
Reduction of single-use plastic

Wastewater treatment

Sources: CRED/EM-DAT (2013), FAO (2011), FAO (2013), PlasticsEurope (2016), UNEP (2017), UNEP/RSP (2017), UNEP-WCMC (2017)

## Initiatives on the ground

### Going straight to the source in the USA

North America continues to implement a series of initiatives to monitor marine pollution and address the introduction of pollutants into the oceans, including identifying their main sources. The U.S. Environmental Protection Agency (EPA) works with the International Maritime Organization to develop and implement legal standards that address vessel-source pollution and ocean dumping. It also partners with the Caribbean Environment Programme to reduce land-based sources of pollution in the Gulf of Mexico and the wider Caribbean region. In order to address the issue of oceans pollution, the National Oceanic and Atmospheric Administration (NOAA) is also engaging in strong outreach and education activities dedicated to minimizing the introduction of debris into the marine environment.

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### Preventing untreated wastewater to enter the Caribbean Sea

More than 80% of sewage enters the Caribbean Sea untreated, making it the primary source of land-based marine pollution. During the last five years, the Caribbean Environment Programme has helped countries reduce the negative impacts of untreated sewage discharge through the Caribbean Regional Fund for Wastewater Management project. As a result, 13 wastewater treatment facilities were rehabilitated in Jamaica, and a new wastewater treatment plant was built in Belize. The Caribbean Environment Programme is also working to reduce nutrients pollution from agricultural discharge with the governments of Jamaica and Costa Rica, and has contributed to the establishment of the Caribbean Platforms for Nutrients and Wastewater Management. The first State of the Convention Area or Pollution Report will be published in 2018 with the aim of assisting governments of the Wider Caribbean with the reduction and prevention of marine pollution.

### Banning plastic bags in Kenya

On 28 August 2017, Kenya banned the use, manufacture and import of all single-use plastic bags. The ban is an effort to reduce the negative impact of plastic on the national environment, health and economy, following the findings of 2.5 plastic bags on average inside the stomachs of cows in Western Kenya.

### Freeing the Mediterranean from marine litter

The Mediterranean Sea is one of the most affected by marine litter, having some of the largest amounts of Municipal Solid Waste generated annually per person: approximately 208-760 kg/person/year, the vast majority of which is plastics, which may reach up to 90% of the recorded marine litter items. The Mediterranean countries, Parties to the Barcelona Convention, are joining efforts for freeing the Mediterranean from marine litter with the entry into force in 2013 of the first-ever legally-binding Regional Plan on Marine Litter Management. In this framework, specific actions are on-going: for instance, Mediterranean countries are implementing fishing-for-litter and adopt-a-beach pilots. To tackle plastic litter at its source, the Mediterranean Action Plan Secretariat is also providing technical assistance to the Mediterranean countries in order to develop the legal framework for the banning of single-use plastic bags at the national level.



### Battling coastal eutrophication in the Philippines

Nutrient pollution in Manila Bay and in adjacent Laguna de Bay, the largest lake in the Philippines, is a major concern. Nutrients, mainly in the form of nitrogen and phosphorus compounds that come from farmland runoff, untreated sewage and detergents in domestic wastewater have been causing eutrophication both in the lake and the coastal Manila Bay. This has been affecting water quality with negative impacts to the health of aquatic ecosystems and the health of citizens with significant economic consequences. In 2008 the Supreme Court of the Philippines mandated that all government agencies and other bodies work together in restoring the water quality of the Manila Bay and its coastal areas to address the root causes of the current degradation, including the problems of nutrient over-enrichment. UN Environment, through the Global Programme of Action has been contributing to local efforts in understanding the nutrient cycling processes, nutrient enrichment pollution and the environmental consequences toward the development of improved practices to address the problem.