

Abstract per sessione sulla plastica del 20.10-2019

The BLUEMED initiative Pilot “For a Plastic-free, Healthy Mediterranean Sea” for a more productive Mediterranean Sea

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An estimated 211,425 tons of plastic enter the Mediterranean annually.

Approximately 250 billion plastic items are floating at its surface with concentrations of up to 64 million items/km² and up to 1,000,000 items/km² on the seafloor. These concentrations are higher than those observed in the five great oceanic gyres.

This pollution has a large environmental impact on the ecosystem as marine animals ingest or get entangled in plastic, or raft on plastic particles leading to the transport of alien (invasive) species to new ecosystems. The resulting socio-economic impact of plastic on tourism, fisheries and aquaculture is enormous.

The management of plastic litter requires an integrated approach, therefore several actions have been identified to tackle this , namely:

1) Define and assess the problem: a) build a denser marine sampling network with scientists/ citizens of the area; b) identify the local land-based sources of litter; c) build a Mediterranean marine litter data base.

2) Implement site specific strategies for removing/lowering the marine litter: a) take steps to removal of microplastics from surface, water column, seafloor and shore via pelagic and benthic trawlers; b) look into opportunities to regular removal of beached debris, plastics from rivers, watercourses and continental runoff waters, via fishermen and citizens; c) stimulate in situ biodegradation of marine litter components; d) development of treatments for valorizing the collected materials to produce energy, new products or chemical building blocks.

3) Prevent marine litter: a) selectively collect and recycle waste plastics by reducing use landfills; b) eliminate the land-based open and open-air dumps, c) remove (via filtration) plastics and tire fragments from highway and urban runoff, and wastewater treatment effluents; d) restrict use of mono-use products, non-essential plastic products and microgranules in products; e) gradually adopt biodegradable (bio)plastics, by starting from those used in marine habitats (for fishing gears, tubular net for marine aquaculture, additives for painting and maintenance of ships and leisure boats).

4) Develop and promote: a) effective and robust regulations/legislation, b) tailored incentives (for recovering plastics from the sea, for recycling plastics, etc), c) R&I actions to underpin what is outlined above , d) education and communication and outreach plans, e) robust partnerships between academia, industry, public institutions, regulatory bodies and the society, and f) long-term coordination of Mediterranean countries.

The BLUEMED initiative, joined by 16 Countries from the EU and non EU countries of the area, launched a Pilot action “For a Plastic-free, Healthy Mediterranean Sea” to tackle plastic pollution in the Mediterranean Sea, thereby contributing also to the implementation of the Updated Bioeconomy Strategy and the European Strategy for Plastics in a Circular Economy, addressed to share knowledge and promote partnerships amongst the Mediterranean sea on the mentioned priorities. It will increase capacity to monitor plastic litter, to understand how microplastic interfere with ecosystems and food chains, to collect plastics from sea, to develop new materials replacing plastics and to recycle plastics. Finally, it will raise awareness and involve schools and youth through ocean literacy and beach clean campaigns.