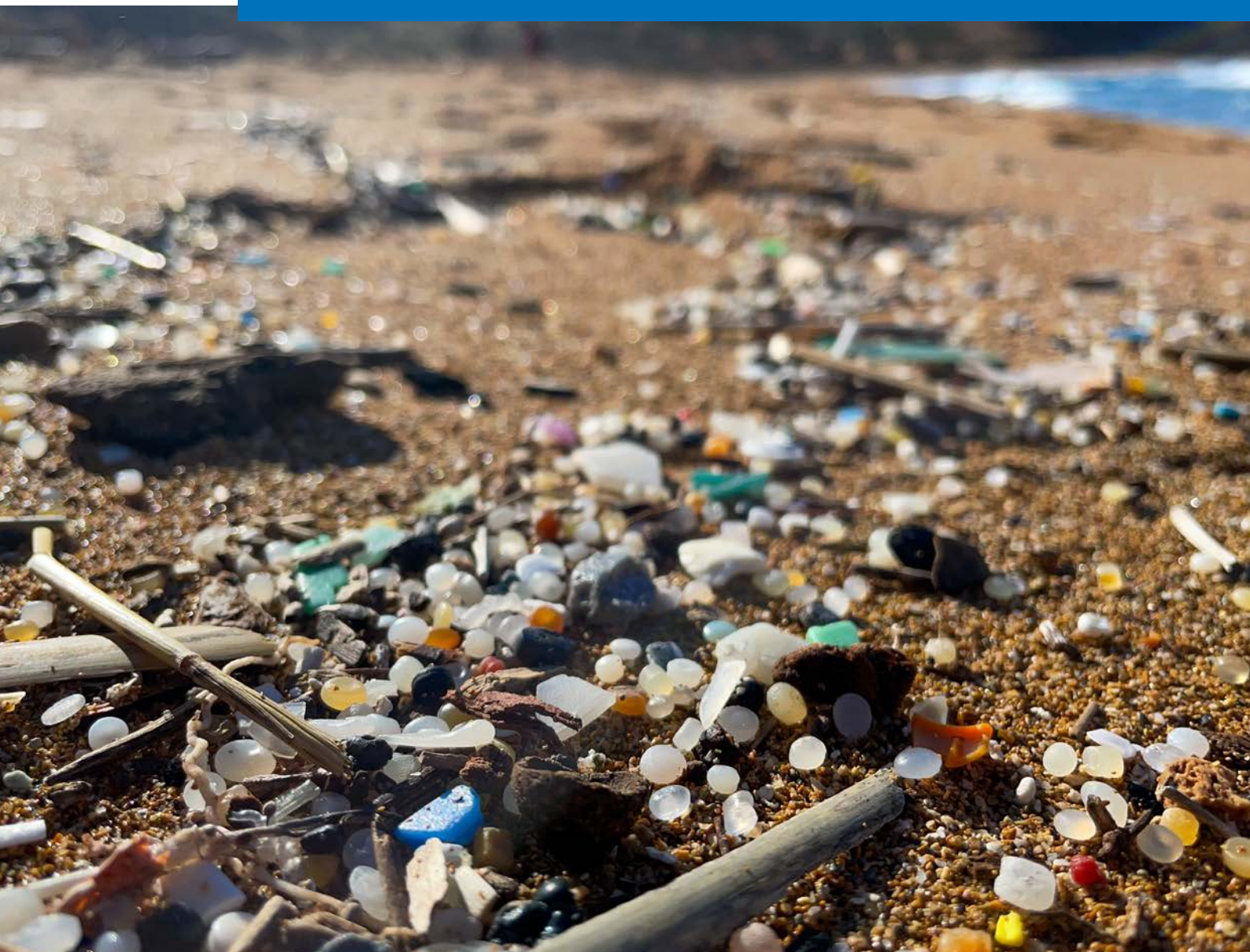




## Plastic Busters CAP

# PLASTIC BUSTERS CAP POLICY TOOLKIT FOR A MARINE LITTER MANAGEMENT APPROACH THAT COUPLES EBM & ICZM

Policy Brief on the state-of-play of marine litter management in the Mediterranean





## Plastic Busters CAP

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# • LIST OF ABBREVIATIONS / ACRONYMS •

**CAP CAPITALIZATION**

**COP CONFERENCE OF THE PARTIES**

**CORMON CORRESPONDENCE GROUP ON MONITORING**

**EBM ECOSYSTEM BASED MANAGEMENT APPROACH**

**ECHA EUROPEAN CHEMICALS AGENCY**

**EEB EUROPEAN ENVIRONMENTAL BUREAU**

**EPR EXTENDED PRODUCER RESPONSIBILITY**

**EUSAIR EUROPEAN STRATEGY FOR THE ADRIATIC AND IONIAN REGION**

**GFCM GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN**

**ICZM INTEGRATED COASTAL ZONE MANAGEMENT**

**IMAP INTEGRATED MONITORING AND ASSESSMENT PROGRAMME**

**INC INTERGOVERNMENTAL NEGOTIATING COMMITTEE**

**MAP MEDITERRANEAN ACTION PLAN**

**MPA MARINE PROTECTED AREA**

**MSP MARINE SPATIAL PLANNING**

**NGO NON-GOVERNMENTAL ORGANIZATION**

**PAHS POLYCYCLIC AROMATIC HYDROCARBONS**

**PBDES POLYBROMINATED DIPHENYL ETHERS**

**POPS PERSISTENT ORGANIC POLLUTANTS**

**REACH REGISTRATION, EVALUATION, AUTHORISATION AND RESTRICTION OF CHEMICALS**

**UFM UNION FOR THE MEDITERRANEAN**

**UNEA UNITED NATIONS ENVIRONMENT ASSEMBLY**

**UNEP UNITED NATIONS ENVIRONMENT PROGRAMME**

**UNEP/MAP MEDITERRANEAN ACTION PLAN OF UNITED NATIONS ENVIRONMENT PROGRAMME**

# INTRODUCTION



1

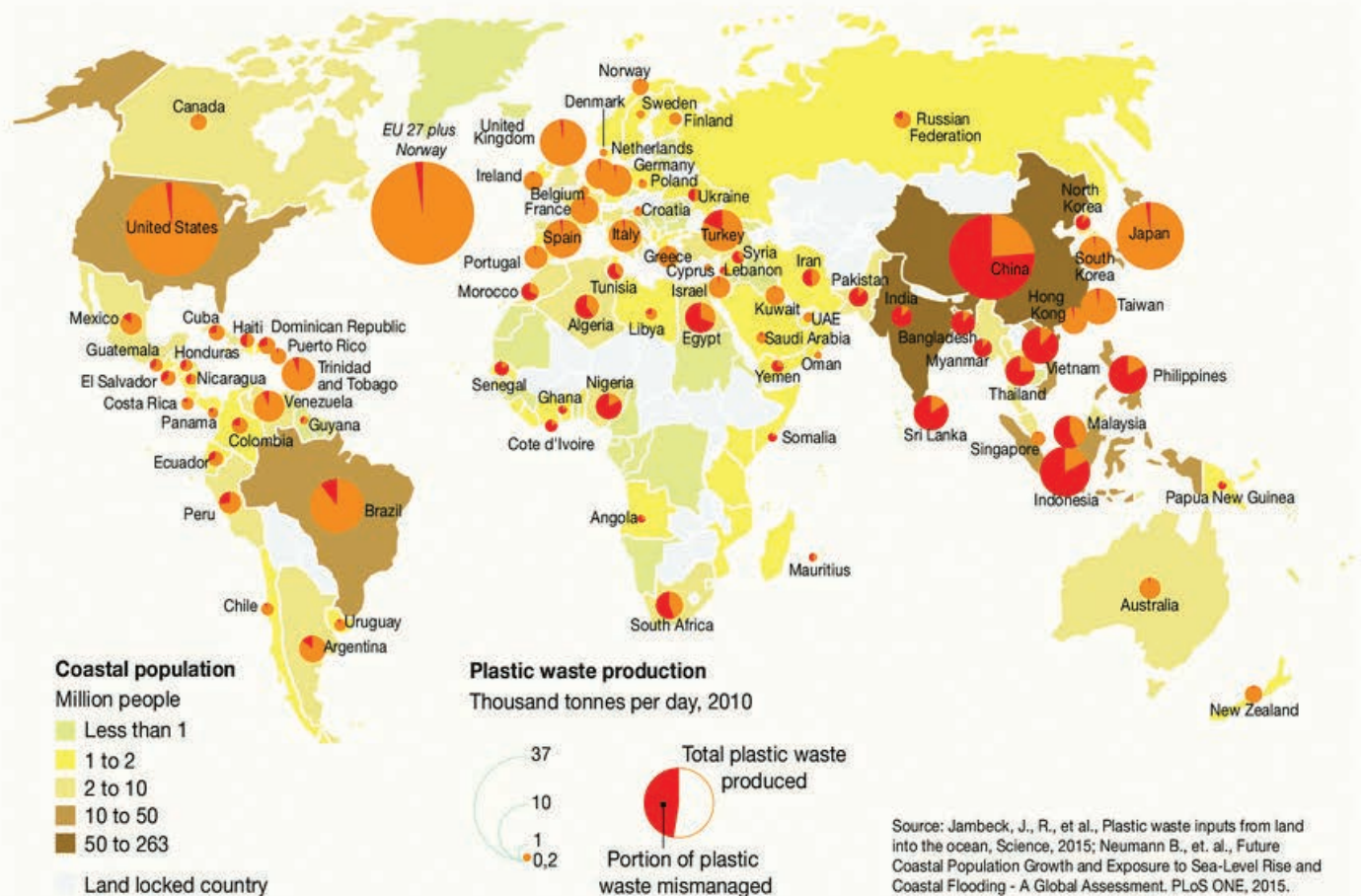
# MARINE LITTER IN THE MEDITERRANEAN: KEY FACTS AND FIGURES

1.1

Marine Litter is globally acknowledged as a major societal challenge of our times due to its far-reaching environmental, economic, social, political and cultural implications. Marine litter negatively impacts coastal and marine ecosystems and the services they provide, ultimately affecting people's livelihoods and well-being (Gall and Thompson, 2015; Veiga et al., 2016). Marine litter, the vast majority of which is made of plastics, is defined as any anthropogenic persistent, manu-

factured or processed solid material discarded, disposed of, or abandoned in the marine and coastal environment (Galgani et al., 2013). Plastics have become the basic component for manufacturing numerous everyday products, and since the 1950s, their production has consistently grown, with their global production reaching 322 million tonnes in 2015 and expected to double by 2035 (Barra et al., 2018).

FIGURE 1 PLASTIC WASTE PRODUCED AND MISMANAGED (JAMBECK ET AL., 2015)



Plastic litter enters the ocean from diverse point and diffuse sources, which can be both land-based and ocean-based, while it can also be transported over long distances before being deposited on shorelines or settling on the bottom of the oceans and seas (Veiga et al., 2016). Inadequate urban and industrial solid waste management, discharge of inappropriately treated/untreated wastewater, agriculture, and tourism and recreational activities are considered to be the main land-based sources of marine litter while the sea-based ones include fisheries and aquaculture, shipping (merchant, leisure and recreational) and off-shore oil and gas platforms that may dispose of drilling equipment, pipes, etc. (Li et al., 2016; UNEP, 2018). It should be highlighted that plastic litter may find its way to the sea by being transported from land-based sources via pathways, including rivers, canals, drains, sewage outlets, storm water outflows, winds and tides.

It is widely accepted that the Mediterranean Sea is one of the most affected seas by marine litter worldwide. Indicatively, the median beach macrolitter density at Mediterranean level was found to be 659 items per 100-metre of coastline (range: 128-2002 items/100m) (UNEP/MAP, 2015). This value is 5 times higher than the threshold

value for beach litter set within the UNEP/MAP Integrated Monitoring and Assessment Programme (130 items/100m). This value is 33 times higher than the threshold value for macrolitter on beaches set within the EU Marine Strategy Framework Directive (20 items/100m). Even in pristine environments of the Mediterranean, such as coastal and marine protected areas, marine litter is building up threatening habitats and species and inhibiting sustainable development. The median beach macrolitter density for coastal and marine protected areas has been found to be from 7 to 147 times higher than the threshold value for macrolitter on beaches set within the Marine Strategy Framework Directive (Fossi et al., 2022).

A large amount of the litter items found on Mediterranean beaches are single-use plastics, such as cigarette butts and filters, plastic caps and lids from drinks, cotton bud sticks, drink bottles, crisps packets and sweets wrappers, etc. (UNEP, 2017). In order to address the issue of single-use plastics, Mediterranean countries have reached a consensus to focus their efforts on tackling specific single-use items that hold paramount importance for the region (see Table 1-1) (UNEP/MAP, 2021).

**TABLE 1 | MEDITERRANEAN PRIORITY LIST OF SINGLE-USE PLASTICS**

GROUP OF ITEMS	ITEMS
PACKAGING	BAGS
SMOKING-RELATED	CIGARETTE FILTERS
FOOD AND BEVERAGE PACKAGING	DRINK BOTTLES, CAPS AND LIDS, CRISP PACKETS AND SWEET WRAPPERS
ON-THE-GO FOOD AND BEVERAGE PACKAGING	CUTLERY, PLATES AND TRAYS, STRAWS AND STIRRERS, DRINKS CUPS AND CUP LIDS, FOOD CONTAINERS INCLUDING FAST FOOD PACKAGING
WC FLUSHED ITEMS	SANITARY APPLICATIONS, INCLUDING COTTON BUDS, WET WIPES AND SANITARY TOWELS
PERSONAL PROTECTIVE EQUIPMENT	MASKS AND GLOVES

With regard to the sources of marine litter in the Mediterranean, it mainly comes from land-based sources; however, sea-based sources also contribute with significant litter inputs. Some 40-

50% of litter items found on beaches, the sea surface and the seafloor are generated on land, mainly from tourism and recreational activities and poor waste management practices (UNEP/



MAP, 2015). The contribution of fisheries and aquaculture related items to the total number of items collected on European beaches has been found to be 15% (Addamo et al., 2017). The contribution of fisheries and aquaculture related items to the total number of items collected by seafloor trawl surveys has been found to be 17% at the Adriatic and Ionian Seas basin (Vlachogianni et al., 2017).

Growing scientific literature documents the threats that marine plastic litter poses to wildlife and ecosystems, with impacts varying from entanglement and ingestion, to bio-accumulation and bio-magnification of toxics either released from plastic items (e.g. PBDEs, phthalates,

Bisphenol A) or adsorbed and accumulated on plastic particles (e.g. POPs, PAHs); facilitation of introduction of invasive alien species; damages to benthic habitats and communities (e.g. through abrasion of coral reefs from fishing gear, disruption of colonies, reduced oxygenation or ‘smothering’ of communities) (Fossi et al., 2019, Vlachogianni et al., 2020). The Interreg Med Plastic Busters MPAs research data have confirmed the high impact of plastic contamination on the Mediterranean biodiversity. Results show that 96% of the 1280 samples of 46 bioindicator species (i.e. invertebrates, fishes, turtles, cetaceans, etc.) analysed had ingested marine litter (including microplastics) (Fossi et al., 2022).

## THE PLASTIC BUSTERS CAP IN A NUTSHELL

1.2

Plastic Busters CAP aims to facilitate decision-makers and stakeholders in effectively tackling the problem of marine litter by integrating EbM (Ecosystem-Based Management Approach) into ICZM (Integrated Coastal Zone Management) planning towards good environmental status. The project seeks to consolidate and fully exploit the knowledge obtained by five relevant projects in order to develop tailored-made capitalization actions that will create the enabling

conditions for a societal shift towards sustainable consumption and production patterns, and a truly circular and green economy. In the long-term, the project will contribute to enhancing ecosystem services via a reduced leakage of marine litter and marine plastic pollution in the Mediterranean Sea and reduced emissions of greenhouse gases by a wise-use and sustainable disposal of plastics.



## THE MAIN EXPECTED RESULTS OF THE PROJECT ARE:

<b>4</b> NATIONAL HANDS-ON TRAINING ACTIVITIES ON MARINE LITTER MONITORING AND ASSESSMENT	<b>1</b> E-COURSE ON MARINE LITTER MONITORING AND ASSESSMENT	<b>4</b> PILOT MARINE LITTER MONITORING AND ASSESSMENT CAMPAIGNS	<b>4</b> NATIONAL HANDS-ON TRAINING ACTIVITIES ON MARINE LITTER PREVENTION AND MITIGATION MEASURES
<b>1</b> E-COURSE ON MARINE LITTER PREVENTION AND MITIGATION MEASURES	<b>4</b> DEMOS SHOWCASING MARINE LITTER PREVENTION AND MITIGATION MEASURES	<b>1</b> ROADMAP ON MARINE LITTER POLICY PRIORITIES	<b>1</b> COASTAL CITIES NETWORK FOR A LITTER-FREE MEDITERRANEAN

Plastic Busters CAP is a 24 month-long project, with a total budget of €1.109.976,27 million and is co-funded by the European Union under the ENI CBC MED Programme 2014-2020. It brings together partners from 7 countries of the Mediterranean region, namely Egypt, Greece, Italy, Jordan, Lebanon, Spain and Tunisia.

The backbone of Plastic Busters CAP is the Interreg Med Plastic Busters MPAs; both projects

deploy the multidisciplinary strategy and common framework of action developed within the Plastic Busters initiative led by the University of Siena and the Sustainable Development Solutions Network Mediterranean. This initiative frames the priority actions needed to tackle marine litter in the Mediterranean and was labelled under the Union for the Mediterranean (UfM) in 2016, capturing the political support of 43 Euro-Mediterranean countries.



# AIM AND SCOPE OF THIS DOCUMENT

1.3

The aim of this policy brief is to empower policymakers at all levels of governance, as well as those who advise and support them, by providing them with a comprehensive overview of the current status and advances related to marine litter policies in the Mediterranean, ultimately enabling targeted and effective policy interven-

tions.

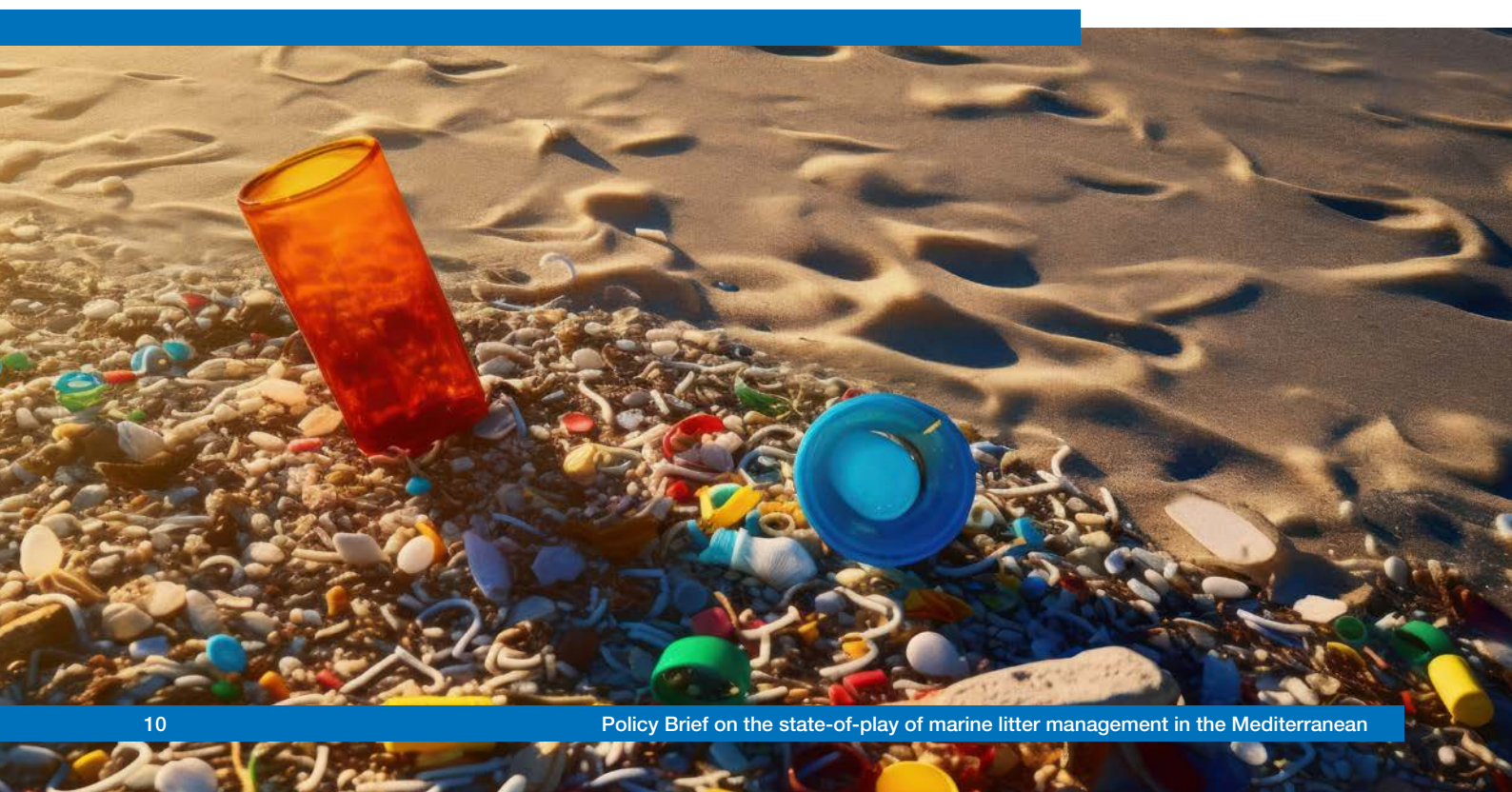
This document constitutes an integral part of the Plastic Busters CAP toolkit that seeks to fully couple the Ecosystem-based Management approach and the Integrated Coastal Zone Management approach and mainstream it into local coastal planning.

## THE PLASTIC BUSTERS CAP TOOLKIT ENTAILS THE FOLLOWING THREE COMPONENTS:

**1** AN UPDATED COMPREHENSIVE REVIEW OF THE PRINCIPAL MARINE LITTER POLICY AND LEGISLATIVE INSTRUMENTS IMPLEMENTED AT THE EUROPEAN, MEDITERRANEAN, AND INTERNATIONAL LEVELS.

**2** THIS POLICY BRIEF HIGHLIGHTS THE MOST RECENT POLICY ADVANCEMENTS PERTAINING TO THE MANAGEMENT OF MARINE LITTER IN THE MEDITERRANEAN REGION.

**3** A SET OF RECOMMENDATIONS DESIGNED TO FACILITATE THE EFFECTIVE INCORPORATION OF MARINE LITTER CONSIDERATIONS INTO LOCAL AND NATIONAL PLANNING PROCESSES.



# LATEST POLICY DEVELOPMENTS ON MARINE LITTER AT INTERNATIONAL, MEDITERRANEAN AND EUROPEAN LEVELS



2

# INTERNATIONAL

## 2.1

Plastic pollution has become a massive global environmental problem, with plastic waste choking marine habitats, littering landscapes, and contaminating food chains. Currently, over 300 million tonnes of plastic waste is generated annually, with projections estimating this could double by 2040. Realizing the scale and urgency of this issue, **the United Nations Environment Assembly (UNEA) adopted a historic resolution in March 2022 to establish an Intergovernmental Negotiating Committee (INC) to negotiate a new legally binding global agreement to confront the plastic pollution crisis by the end of 2024.**

The resolution to launch treaty negotiations was approved by 175 nations, with only Peru opposing it. This level of support reflects growing global momentum to tackle the plastic problem through coordinated international action. The INC process will aim to deliver a comprehensive treaty that addresses the full lifecycle of plastics, placing binding commitments and standards on governments and industry players with regards to production, consumption, waste management, pollution prevention, financing, and more.

The INC is mandated to hold both in-person and virtual sessions over the course of 2022-2024 to formulate the treaty before presenting it for adoption at the UNEA summit likely to be held in early 2025. The first INC meeting took place in Punta del Este, Uruguay in November 2022, where delegations started deliberating over key elements including the scope, structure, targets, provisions, timelines, and institutional arrangements for the new instrument.

Major points of discussion include:

- Whether targets should be voluntary or mandatory
- If standards should be set around plastic production, use, and waste management

- How to address financing, especially for developing nations
- How to reflect principles of circular economy in the treaty language
- How prescriptive it should be in regulating industry and business
- Ensuring shared but differentiated responsibilities between Member States

While the negotiations have only just commenced, positions from different country blocs have started to emerge. The EU along with many Pacific and African states are pushing for an ambitious, legally binding treaty with clearly defined global reduction targets, producer responsibilities, and financing commitments. However, major plastic producers like the US, Saudi Arabia and India, along with private sector lobbies advocate for a more flexible framework with voluntary national plans and objectives.

Reconciling these differing stances to develop a cohesive, effective treaty will be the key challenge for negotiators over the next two years. The tight timeline adds further pressure, especially considering that ordinary trade deals and environmental accords can take over a decade to finalize. The second session of the INC meeting took place in Paris, France from 29 May to 2 June 2023 and it delved deeper into the details by elaborating the first potential draft elements. The document addresses the full life cycle of plastics, and reflects the views expressed by Member States during the first session of the committee and in their written submissions. The zero draft of the plastic treaty includes possible core obligations and various measures intended to support the intergovernmental negotiating committee in its deliberations for the future instrument, in particular, during the next and third session (INC-3) which is scheduled from 13 to 19 November 2023 at the UNEP Headquarters in Nairobi, Kenya.

Overall, while UNEA's unanimous decision to develop a plastics treaty is a breakthrough, substantial obstacles remain in negotiating binding global standards acceptable to all nations. But if successful, the treaty could usher in a new era of international cooperation to combat the menace of plastic pollution across lands, rivers and oceans.



## MEDITERRANEAN

2.2

### THE 2021 UPDATED REGIONAL PLAN FOR MARINE LITTER MANAGEMENT

The Mediterranean region faces significant challenges from marine litter pollution. To address this, the Mediterranean Action Plan of the Barcelona Convention adopted a Regional Plan for Marine Litter Management in 2013. This initial plan has now been updated in 2021 to reflect the latest scientific knowledge, policy landscape, and lessons learned over the past decade of implementation incorporating new strategic objectives, operational objectives, and thematic areas. In addition to placing a greater emphasis on circular economy solutions and life cycle thinking as an overarching approach, the updated plan stresses the importance of multi-stakeholder engagement across civil society, private sector and the scientific community. Entirely new sections have been added on the circular economy, mainstreaming marine litter through policies and legislation, and monitoring and assessment of the marine litter problem. The latter goes into much more detail on monitoring protocols, assessments, and indicators. New strategic objectives have been introduced around the circular economy, mainstreaming marine litter management, and monitoring and assessment. Mainstreaming across policies and stakeholder groups is now a priority. New or expanded operational objectives cover: strengthened EPR schemes; research on pathways and solutions;

monitoring floating litter; seafloor mapping; regional indicator factsheets; a regional monitoring program; assessments of harm and impacts; mapping accumulation zones; and identifying sources in cooperation with industry.

In summary, the updated Regional Plan has significantly expanded in scope and specificity. It incorporates the latest policy and scientific developments. Implementation is now guided by a circular economy and life cycle approach rather than a sole focus on protection of the marine environment. Monitoring and assessment capabilities have been enhanced, matching the increased understanding of marine litter impacts in the Mediterranean basin.



## COP22 ANTALYA MINISTERIAL DECLARATION: LEAVING A POLLUTION AND LITTER-FREE LEGACY

Amidst growing concerns over the escalating threat of marine plastic pollution, the delegates of COP22 convened in Antalya in 2021 to forge a united front against this environmental crisis.

**The outcome of this historic meeting was the COP22 Antalya Ministerial Declaration, a decisive and far-reaching plan aimed at leaving a lasting legacy of pristine beaches and unpolluted waters across the Mediterranean region.**

The 2021 Regional Plan presented during COP22 introduced a series of specific additions and updates, reflecting an evolution in our understanding of marine plastic pollution issues since 2013. The cornerstone of this plan lies in the establishment of a **quantitative beach litter threshold value**: an essential benchmark of 130 items per 100 meters of beach. This standardized measure enables a comprehensive evaluation of beach litter pollution levels across the region, providing vital insights to guide future strategies. Moreover, under the Integrated Monitoring and Assessment Programme (IMAP) of the Mediterranean Sea, new baseline values and threshold values were adopted for two key indicators of marine litter: seafloor macro-litter and floating microplastics. These updated values (BV: 0-980 items/km<sup>2</sup>, TV: <200 items/km<sup>2</sup> for seafloor macro-litter, and BV: 0-281,000 items/km<sup>2</sup>, TV: <90,000 items/km<sup>2</sup> for floating microplastics) facilitate more accurate assessments of pollution levels, thereby enabling targeted interventions. Recognizing the significant contribution of inland sources to marine plastic pollution, the COP22 Antalya Ministerial Declaration emphasized the development of **guidelines for monitoring marine litter inputs from rivers**. This crucial step addresses a previously overlooked aspect of the issue and paves the way for effective mitigation measures.

The Declaration further highlighted the importance of collective efforts and cooperation among

nations and stakeholders. To that end, it called for the inclusion of a dedicated chapter on marine litter in the 2023 Mediterranean Quality Status report, ensuring a comprehensive regional assessment and measuring progress in tackling the crisis.

In a resolute effort to prevent and reduce the generation of marine litter, the plan put forth a call for stronger implementation and enforcement of relevant international, regional, and national policies. Encouraging the application of circular economy principles and promoting sustainable consumption and production further underscored the commitment to creating a circular and waste-free future.

Recognizing the role of various stakeholders in effecting change, the COP22 Antalya Ministerial Declaration emphasized targeted capacity building for civil society, local authorities, the private sector, and other key players. By empowering these entities with knowledge and resources, the plan aimed to foster collective action at all levels of society.

The comprehensive updates and additions outlined in the 2021 Regional Plan represent a significant stride forward in the fight against marine plastic pollution. With standardized monitoring methods and a renewed focus on quantifiable pollution reduction targets, the Mediterranean region stands united in its determination to safeguard its precious waters and coastlines for generations to come.



## THE ADOPTED BEACH LITTER THRESHOLD VALUE OF 130 ITEMS/100 METER STRETCH OF BEACH

The UNEP/MAP “Marine Litter Assessment in the Mediterranean 2020” report provides a comprehensive baseline assessment of beach litter amounts across the region. Litter items were counted during surveys of 853 beaches in 19 countries. The average litter count was 218 items/100m, exceeding the threshold by over 150 items/100 m. Plastics accounted for 84% of litter items.

- The UNEP/MAP monitoring guidance specifies a minimum of 4 surveys per beach per year, with 100 m stretches randomly selected and all observable litter items counted in situ. Surveys follow a standard visual observation technique without collecting/removing litter.
- The 14th Meeting of the UNEP/MAP Marine Litter Focal Points in February 2022 focused on implementation of the beach litter monitoring program. The meeting report reaffirmed the threshold of 130 items/100 m as a baseline value for the Mediterranean.
- The UNEP/MAP Guidance on National Marine Litter Monitoring Programs published in June 2022 provides a 3-tiered approach for

developing programs. Tier 1 specifies beach litter surveys using the UNEP/MAP threshold as a key indicator.

- Participating countries submit annual reports on implementation of the Barcelona Convention, including information on marine litter monitoring programs. But surveys using UNEP/MAP methodology are still limited.
- The UNEP/MAP working group CORMON on marine litter is discussing potential revision of the threshold and methodology. This includes analysis of expanded regional survey data. But no changes have yet been formally proposed or adopted.
- An updated UNEP/MAP Mediterranean quality assessment report is expected in 2023, pending official publication. This will provide analysis of updated regional beach litter data in relation to the current 130 items/100 m threshold.



## UPDATED BASELINE VALUES AND PROPOSED THRESHOLD VALUES FOR IMAF COMMON INDICATOR 23 ON SEAFLOOR MACRO-LITTER AND FLOATING MICROPLASTICS

The Intergovernmental Oceanographic Commission’s Common Indicator 23 (Marine Litter) established by the Working Group on Marine Litter covers seafloor macro-litter (>20mm) density and floating microplastics (<5mm). The 2022 report from the working group provided updated baseline

values and proposed threshold values. For seafloor macro-litter, the baseline was revised to 20 items per km<sup>2</sup> based on trawl surveys, while the proposed threshold value remains 10 items per km<sup>2</sup>. For floating microplastics, the baseline was set at 0.016 particles per m<sup>2</sup>, and the threshold at 0.005 particles per m<sup>2</sup>. These values represent a scientific consensus, but some experts argue for more ambitious thresholds.

The proposed threshold values have generated debate within the scientific community. Some argue the thresholds lack ambition and urgency, given the rapid increase and pervasiveness of

plastic pollution. They advocate for lower thresholds that would compel more aggressive policies to reduce and prevent plastic waste from reaching oceans. Others contend the thresholds are appropriately precautionary based on current monitoring capabilities and gaps in baseline data, especially for microplastics which require standardized sampling and analytical methods. Concerns have also been raised about the feasibility of meeting the thresholds in the near term without transformative system-wide interventions. The discussion highlights the delicate balance between using existing science to guide

de policy and allowing scientific uncertainty to enable further plastic pollution.



## GUIDELINES FOR MONITORING RIVERINE INPUTS OF MARINE LITTER

**The UNEP/MAP report provides guidelines for monitoring plastic litter entering the marine environment from rivers.** It recommends monitoring litter inputs at the river mouth or estuary, as this is the main pathway for litter to reach the sea. The report advises collecting data on litter composition, abundances, and sources. It stresses using standardized methods for collecting and analyzing data to allow comparisons across locations and over time. Key recommendations include surveying litter washed ashore, sampling surface waters, counting litter items trapped in floating booms, and analyzing seafloor litter. The report details suitable survey and sampling methodologies, equipment needs, and data collection protocols. It emphasizes

the importance of identifying litter sources through branding, material types, etc. The goal is to generate comparable data to understand spatiotemporal trends in riverine litter inputs and inform source reduction and prevention strategies. Overall, the report provides comprehensive, science-based guidelines for monitoring litter from rivers before it impacts marine ecosystems.



## RELEASE OF A POLICY BRIEF BY THE UNION FOR THE MEDITERRANEAN ON MARINE LITTER

**Titled “Litter-Free is the Way to Be: Actions for a Healthy Mediterranean” this significant document was crafted in response to the**

**growing menace of marine litter and plastic pollution, notably in the Mediterranean Sea.** Published in 2021, its primary objective is to address the multifaceted implications of plastic pollution on the environment, economy, society, politics, and culture, with a specific emphasis on the Mediterranean region.



The Mediterranean Sea is particularly vulnerable to this threat due to its densely populated coasts, developed tourism, and heavy maritime traffic. The lack of proper waste management systems, from collection to recycling, in many surrounding countries further exacerbates the problem.

The document acknowledges that plastic pollution is not only a marine pollution issue but also contributes to air pollution and climate change. Plastic emits greenhouse gases at every stage of its life cycle, from production to disposal.

The “Plastic Busters Initiative” was launched in 2013 to address existing scientific and policy gaps related to marine litter in the Mediterranean. Led by the University of Siena and implemented by a consortium of 15 partners from across the Mediterranean, the Plastic Busters Initiative focuses on four key areas of intervention:

- Assessment through harmonized monitoring approaches.
- Demonstrative actions to test prevention and mitigation measures.
- Governance support.
- Capacity building and awareness-raising.

The document emphasizes the need to adopt a circular approach to tackle the problem, avoiding the use of environmentally harmful materials and

promoting sustainable resource use. It highlights the importance of strengthening cooperation among Mediterranean initiatives and developing harmonized approaches for monitoring and managing marine litter. Furthermore, the document underscores the importance of adopting a systemic and interconnected approach to combat marine litter, addressing both the direct and indirect impacts of human activities on marine environments and biodiversity.

The document concludes that urgent action is needed to reverse the increasing pollution from marine litter in the Mediterranean. It emphasizes that the future of the Mediterranean depends on adopting a regenerative and circular growth model that protects marine environments and promotes human well-being. The Plastic Busters Initiative will continue to work towards consolidating collective efforts to combat marine litter and contribute to the goal of a litter-free Mediterranean.



## UNION FOR THE MEDITERRANEAN (UFM) MINISTERIAL DECLARATION ON SUSTAINABLE BLUE ECONOMY

**The Union for the Mediterranean (UfM) Ministerial declaration on Sustainable Blue Economy was adopted on February 2, 2021 during a Conference held under the UfM co-presidency of Jordan and the European Union.** This declaration builds on previous commitments and initiatives related to promoting a sustainable blue economy in the Mediterranean

region.

The concept of blue economy refers to the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while protecting the health of ocean ecosystems. The Mediterranean region relies heavily on the blue economy sectors like fisheries, aquaculture, maritime transport, coastal tourism, and ocean energy. However, economic, social and environmental challenges threaten the sustainability of these sectors.

The declaration first provides background by recalling relevant previous UfM declarations, international conventions, and initiatives related to blue economy in the region. It expresses concern over the impacts of COVID-19 which has severely affected economic activity and employment in the Mediterranean countries.

The declaration reaffirms the importance of blue economy for sustainable growth, jobs and poverty reduction in the region. It lays out a comprehensive set of agreed actions across the following key areas:

- Governance and policy coordination - Reinforcing dialogue between countries, maximizing coordination between sub-regional initiatives like WestMED and EUSAIR.
- Research and innovation - Continued support for initiatives like BLUEMED, addressing skills gaps, cooperation between clusters.
- Sustainable fisheries and aquaculture - Compliance with GFCM recommendations, support for small-scale fisheries, sustainable aquaculture strategy.
- Sustainable maritime transport - Transition to low emission and zero pollution ships and ports, energy efficiency.
- Marine litter - Implementing the Regional Plan on marine litter management, plastic waste prevention and circular economy approaches.
- Coastal and maritime tourism - Policy coordination, sustainable tourism strategies, addressing impacts of COVID-19.

- Maritime spatial planning - Further use of tools like ICZM and MSP for sustainable blue economy development.
- Marine renewable energy - Developing technologies, addressing environmental impacts.
- Maritime safety and security - Enhancing cooperation between countries.
- Sustainable investment - Calls for prioritizing investments aligned with Sustainable Blue Economy Finance Principles.

The declaration stresses the need to strengthen regional cooperation and partnerships between Mediterranean countries. It highlights the importance of adequate financing, capacity building and technology transfer to enable all countries to benefit from a sustainable blue economy.

In conclusion, the UfM Ministerial declaration lays out a comprehensive framework for promoting sustainable development of blue economy sectors across the Mediterranean region through enhanced regional collaboration. The next Ministerial Conference on Blue Economy will be held in 2025.



## 2017 MEDITERRANEAN QUALITY STATUS AND 2023 UPDATES

The Mediterranean Quality Status Report 2017 presented a comprehensive scientific assessment of the current environmental status of the Mediterranean Sea basin. Key findings included decreased water quality due to nutrient, conta-

inant, and plastic pollution from industrial, agricultural, and urban sources. Declining biodiversity and habitat loss were also highlighted, with overfishing as a major pressure on commercial fish stocks and vulnerable species.

The report utilized long-term monitoring data on pollution levels, eutrophication, ocean acidification, and other key indicators to evaluate envi-

ronmental trends across the region. Advanced modeling techniques enabled analysis of future climate change impacts on the Mediterranean, predicting rises in sea temperatures and acidity along with changes in precipitation, saline levels, and circulation patterns.

Looking ahead, the upcoming Mediterranean Quality Status 2023 report will utilize the latest scientific methodologies and data sources to update understanding of the environmental health of the Mediterranean. Improved satellite tracking of pollution events expanded monitoring of marine protected areas, and new habitat mapping technologies will inform the 2023 assessment. Updated ecological models incorporating species distribution shifts and genetically identified stocks will support more precise estimates of ecosystem changes.

By leveraging these technical advances, the

2023 report will provide policymakers with an evidence-based scientific foundation to develop targeted, effective strategies for addressing pressures on the Mediterranean environment. The report will be essential for guiding coordinated regional actions for pollution control, habitat protection, climate change adaptation, and long-term sustainable use of marine resources across the Mediterranean basin.



## EUROPEAN

## 2.3

### EUROPEAN UNION AND THE MARINE STRATEGY FRAMEWORK DIRECTIVE

The Marine Strategy Framework Directive (MSFD) was adopted by the EU in 2008 and required Member States to take measures to achieve or maintain Good Environmental Status (GES) in their marine waters by 2020. However, in 2023, most EU marine regions have not yet achieved GES.

In 2022, the European Environment Agency released an updated assessment on the status of MSFD implementation. The key findings were:

- While some progress has been made, the majority of Member States' marine waters have not yet achieved GES. There are ongoing challenges particularly related to biodi-

versity, fisheries, and eutrophication.

- Coordination across marine regions remains insufficient and implementation of the MSFD has been delayed beyond the 2020 target due to lengthy processes and insufficient data in some regions.
- Established targets are not sufficiently ambitious in many marine waters and need to be revised to achieve GES. Monitoring programs also need expansion and improved consistency.
- Climate change impacts pose increasing pressures on marine waters and present difficulties in separating its effects from other human pressures.
- Enhanced implementation of management measures and policy coordination is necessary to achieve GES.

In 2022, the European Commission proposed a

revision of the MSFD to update targets and requirements. The key proposed changes include:

- Binding ocean recovery targets: setting legally binding restoration targets for marine ecosystems by 2030 and 2050.
- Improved coordination: establishing a joint monitoring program and plan at the EU level.
- Responding to climate change: including climate change impacts in GES assessments and monitoring.
- Widening the scope: integrating new pollutants, underwater noise, and seabed damage into the MSFD monitoring and targets.

The proposed revision aims to accelerate pro-

gress towards the directive's objectives. With the majority of marine regions not achieving GES, enhanced implementation remains critical in the coming years for the MSFD to effectively protect Europe's marine environment.



## THE JOINT RESEARCH CENTRE'S ANALYSIS OF MSFD IMPLEMENTATION: A COMPREHENSIVE ANALYSIS OF 2018 REPORTING ON MARINE LITTER UNDER THE EU MARINE STRATEGY FRAMEWORK DIRECTIVE

The report offers a detailed examination of the 2018 reporting from 21 European Union (EU) Member States concerning Descriptor 10 (D10) of the Marine Strategy Framework Directive (MSFD). Descriptor 10, also known as D10, focuses on marine litter, with a specific emphasis on its various aspects, such as surface litter, seabed litter, microlitter, ingested litter, adverse effects on marine life, and the establishment of threshold values for the assessment of Good Environmental Status (GES).

D10C1, which addresses litter, saw an uneven emphasis on assessments between coastlines and seabeds, with only 11 out of the 21 Member States reporting on surface waters. Furthermore, the reporting of litter often employed a generalized 'macrolitter' category, which hindered comparability and standardization of data. In the case of D10C2, which concerns micro-

litter, assessments predominantly concentrated on surface waters, with limited reporting for coastlines and seabeds. The most frequently reported category was 'artificial polymer materials.' Regrettably, very few Member States undertook assessments for the secondary criteria D10C3 (ingested litter) and D10C4 (adverse effects on biota) due to the absence of agreed methodologies. There is a pressing need to develop standardized methods to enable assessments in these crucial areas.

Only 13 Member States provided quantitative threshold values in their reports, with sources of these thresholds varying, including references to OSPAR, UNEP, and national standards. This lack of agreement on threshold values resulted in numerous assessments marked as 'unknown.' Collaborative efforts to develop and harmonize threshold values are imperative to address this issue effectively.

The majority of Member States did not report on their achievement of GES, and where such reports were available, the status was typically labeled as 'expected by/after 2020' or 'unknown.' The primary reason for this lack of clarity was the absence of agreed-upon thresholds and

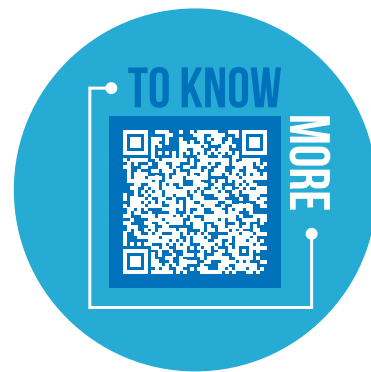
comprehensive data. It is evident that a common methodology for GES determination is essential to bring uniformity and consistency to these assessments.

Substantial disparities emerged among Member States regarding the spatial coverage and assessment periods utilized for evaluating the D10 criteria. These differences have posed significant challenges in integrating assessments at regional and EU levels, indicating a need for standardization in this regard.

Inconsistencies were observed in the information reported electronically versus text reports for some Member States, raising concerns about data accuracy and reliability. A more streamlined and harmonized reporting format is necessary to improve the overall quality and comparability of the reports.

In conclusion, while the 2018 reporting on D10 under the EU Marine Strategy Framework Directive shows progress by Member States, it also highlights substantial gaps in various are-

as. These gaps include the absence of agreed methodologies for assessing the impact of marine litter on biota, the lack of consensus on threshold values, inconsistencies in GES determination approaches, and disparities in reporting formats. To address these challenges and pave the way for more integrated and comprehensive D10 assessments, priority actions should focus on cooperative efforts for threshold development, standardization of biota impact monitoring, harmonization of reporting formats, and the establishment of a common methodology for GES assessments. These actions are crucial in driving progress towards the reduction of marine litter and its detrimental effects on our oceans.



## THE EUROPEAN BEACH LITTER THRESHOLD VALUE ADOPTED IN 2021

The document proposes a systematic approach for establishing a threshold value (TV) to assess and monitor macro litter pollution on European coastlines. Here is a more detailed summary:

Marine litter, including on coastlines, is a priority issue under the EU's Marine Strategy Framework Directive (MSFD). The MSFD requires Member States to set threshold values that define acceptable litter levels and progress towards good environmental status.

This report puts forward a common TV of 20 litter items per 100 meters of coastline for macro litter (>2.5 cm) on beaches and shorelines

across Europe. The TV corresponds to the 15th percentile abundance from a baseline dataset of litter monitoring surveys in EU countries during 2015-2016.

The backdrop is that currently, there is insufficient scientific data to base a TV directly on quantitative ecological or socio-economic harm caused by beach litter. The proposed TV takes a precautionary approach to set a threshold that experts judge would reduce harm to an acceptable level based on available monitoring data.

The TV is intended for compliance checking by comparing it against the median litter abundance calculated from monitoring surveys in each Member State per MSFD (sub)region over a 6-year assessment period. A minimum of 40 surveys is recommended to ensure a robust median value.

The report acknowledges the TV is challenging to achieve in the short term in some regions with higher current litter levels. Intermediate targets will be defined to support stepwise progress. Monitoring data must follow agreed protocols and the joint litter category list to enable coherent assessments.

In summary, the proposed threshold value and harmonized monitoring methodology aims to promote consistency across EU Member States in assessing beach litter levels, taking action and reporting progress towards the common target

of good environmental status under the MSFD. It establishes a quantitative target while allowing country-specific intermediate steps.



## THE ADOPTION OF THE JOINT LIST OF LITTER CATEGORIES

The Joint List of Litter Categories is an important tool developed under the EU's Marine Strategy Framework Directive to enable harmonized monitoring and assessment of marine macrolitter across Europe. Here is a more detailed summary:

Marine litter is a complex transboundary issue requiring coordinated monitoring and prevention efforts. The ability to consistently identify and classify litter items collected across different programs and regions is critical. To address this need, the Joint List was prepared through extensive consultation by the MSFD Technical Group on Marine Litter.

The list provides a hierarchical system to categorize macrolitter, i.e. items larger than 2.5 cm. It starts with 9 broad material types like plastic, paper, and rubber. These are further divided into use categories and 5 levels of increasing specificity down to individual litter items.

In total, the list covers 281 litter types/groups to allow detailed classification while also enabling aggregation at higher levels. Standardized descriptions and a photo catalogue help ensure consistent application of the list.

The level of detail can be adapted as needed, from broad material types to specific items that help pinpoint sources and shape prevention measures. The codes and nested structure also facilitate data integration and analysis across regions.

A mechanism to update the list over time is proposed to account for shifts in litter types. The list is intended for macro-litter monitoring – meso and micro litter require different methodologies.

Overall, the Joint List aims to promote a common language and framework for macrolitter monitoring across marine compartments, coastlines, and regional seas. This is critically important for generating comparable data to better understand litter sources, movements, impacts, and the effectiveness of measures to combat this environmental threat.



## THE 2022 EC COMMUNICATION ON THE EU POLICY FRAMEWORK ON BIOBASED, BIODEGRADABLE AND COMPOSTABLE PLASTICS

The European Commission conducted an extensive consultation process to engage stakeholders in developing a policy framework on biobased, biodegradable and compostable plastics. Here is a more detailed summary of the key findings:

The consultation included feedback on a roadmap from 130 entities covering industry, NGOs, governments, academia and citizens. It also involved an open public survey that garnered 661 responses. Overall, stakeholders agree on the need for a coherent EU-wide policy framework as the market share and diversity of biobased and biodegradable/compostable plastics increases.

Industry stakeholders seek to drive innovation in these plastics and unlock their potential to reduce dependence on fossil fuels. However, NGOs, local authorities and waste managers place priority on ensuring sustainability and correct use and disposal to avoid environmental impacts. There is broad consensus on the value of clear labeling and certification standards to promote proper consumer use and disposal of the different types of plastics. Stakeholders widely support the development of EU sustainability criteria for biological feedstocks used in biobased plastics, though

some flexibility is requested to enable innovation.

Views are mixed on whether biodegradable plastics help address pollution - their value seems higher for certain products like agricultural mulch films rather than consumer packaging. Strong support emerges for robust standards, testing protocols and labeling to substantiate claims of biobased content and composability. Many note that updates are needed. Challenges are highlighted in applying compostability standards and integrating some biodegradable plastics in existing waste collection and management systems. Diverse policy measures are proposed, including sustainability criteria, standards, labels, economic incentives, and integration in waste management. Separate policies are suggested for biobased versus biodegradable/compostable plastics.

In conclusion, the consultation reveals broad stakeholder support for creating a policy framework that enables sustainability benefits from these plastics while addressing risks as the market develops.



## SCIENCE-BASED POLICY: EUROPE'S PROPOSED REGULATIONS ON INTENTIONALLY ADDED MICROPLASTICS

On August 30, 2022, the European Commission released a draft legislative proposal to restrict the intentional incorporation of microplastics in

commercial and industrial products. The proposed restrictions would apply to synthetic polymeric particles and fibers below defined size thresholds that are intentionally added and may leach into the environment. Specifically, the draft aims to prohibit the use of microplastics smaller than 5 mm for particles and 15 mm for fibers in categories such as cosmetics, detergents, pesticides, fertilizers, and sports infrastructure where

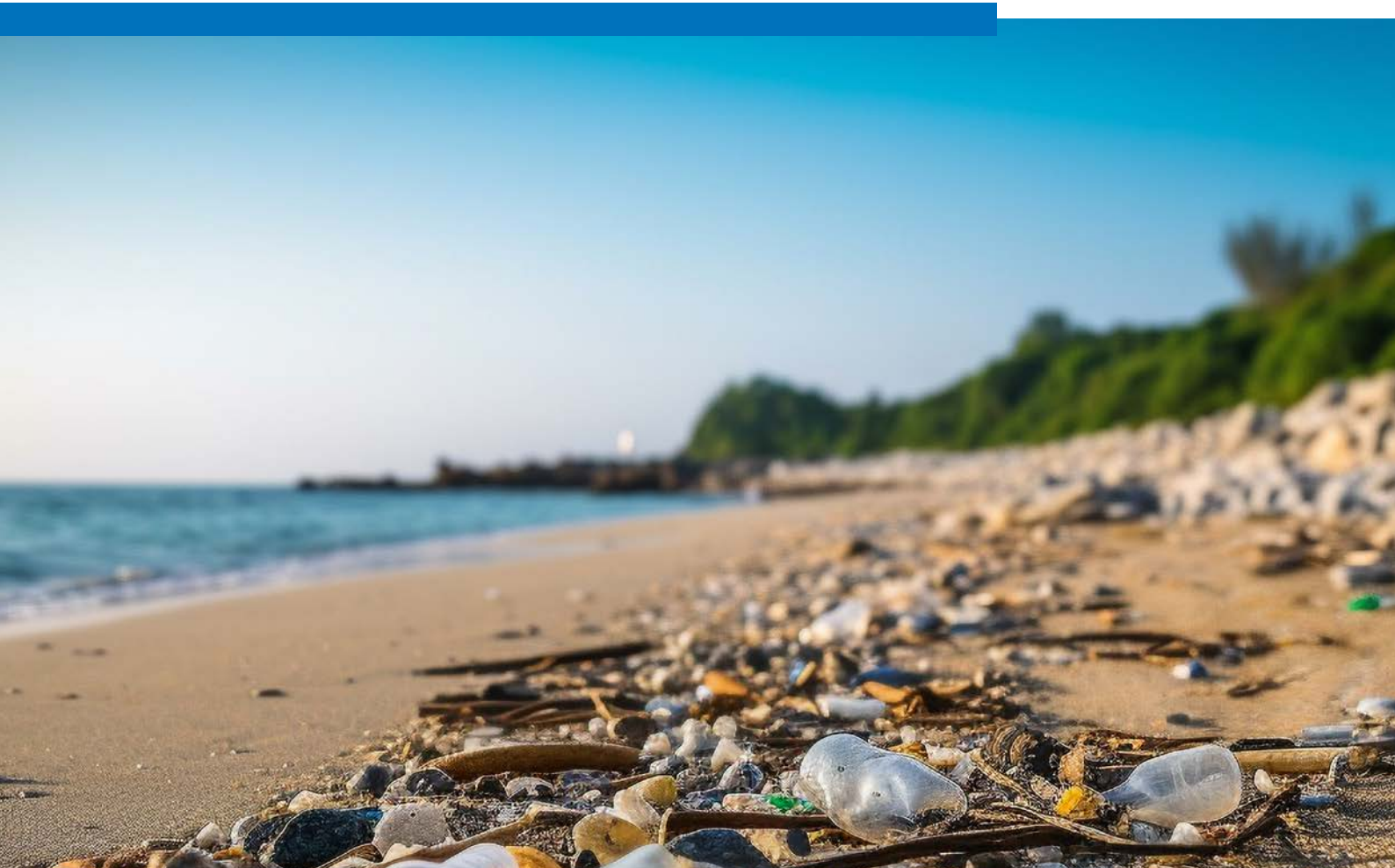
release is deemed preventable. Naturally occurring, biodegradable, and water-soluble polymers would be excluded per the draft definition of restricted “synthetic polymer microparticles.”

In a press statement on August 31, 2022, the non-governmental organizations ClientEarth and the European Environmental Bureau (EEB) welcomed the Commission’s proposal but cautioned that certain provisions may threaten its effectiveness. While the draft lowers the smallest size limit from 100 nm to capture more microparticles, the allowance for companies to comply over a 12-year period was deemed “unacceptable” in curbing pollution. The groups advised strengthening the proposed restrictions during the legislative process to maximize environmental benefits.

The draft proposal was discussed at a 2022 September 23, meeting of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Committee. Additional feedback is

expected from industry stakeholders and environmental experts before finalization.

Preceding the draft, a 2017 Council conclusion called for a prohibition on microplastics in personal care products and detergents. Further risk assessment by the European Chemicals Agency (ECHA) in 2019 concluded intentional use of synthetic polymer microparticles warrants regulatory action to mitigate environmental releases. An estimated 42,000 metric tons of purposefully added microplastics enter European environments annually.





## CONCLUSION

In conclusion, this policy brief offers a synopsis of pivotal international, European and Mediterranean policy developments related to marine litter management. Significant milestones include the 2021 updated Regional Plan for Marine Litter Management under the Barcelona Convention, establishing a quantitative beach litter threshold and guidelines for monitoring floating litter, seafloor macro-litter, and riverine inputs. The EU Marine Strategy Framework Directive has also been instrumental in mandating harmonized monitoring, setting thresholds, and restricting single-use plastics. Challenges remain in developing national monitoring programs using standardized UNEP/MAP protocols, investing in recycling infrastructure and compliant landfills, and transitioning to circular models for plastics. Persistent obstacles across the region include inadequate waste collection systems, limited facilities for treatment, recovery and recycling, lack of public awareness, and unsustainable tourism practices. Moving forward necessitates strong policy enforcement, cross-sectoral collaboration, financing for facilities and training, and integrating life cycle approaches to engender systemic change towards circularity. While progress has been made in establishing a governance framework, realizing tangible litter reduction in the Mediterranean will require translating high-level commitments into on-the-ground implementation and bridging regional disparities in capacities. Sustained monitoring coupled with adaptive policymaking will be indispensable to achieving Good Environmental Status.

This documentation also emphasizes the substantial gap between the international instruments and policies designed to address marine litter in the Mediterranean basin and their actual implementation and outcomes at the national level. Despite considerable efforts at the international and regional scales, the true challenge lies in ensuring the effectiveness of these policies and measures at the national level and surmounting the operational and cultural obstacles that persist in managing marine litter in the Mediterranean.

Among the international instruments mentioned are the Barcelona Convention, proposals, and documents from the United Nations Environment Programme (UNEP) under the Mediterranean Action Plan (MAP), and the European Union's Marine Strategy Framework Directive. However, the discrepancy between these policies and the practical situation in Mediterranean countries remains substantial.

# 3

## Plastic Busters CAP

Fostering knowledge transfer to tackle marine litter in the Med by integrating Ecosystem-Based Management Approach (EBA) into Integrated Coastal Zone Management (ICZM)

[www.enicbcmmed.eu/projects/plastic-busters-cap](http://www.enicbcmmed.eu/projects/plastic-busters-cap)



## Plastic Busters CAP

A project labelled by UIM

