

Mediterranean Information Office for Environment, Culture and Sustainable Development The Mediterranean NGO Federation

## COMBATING MARINE LITTER IN THE MEDITERRANEAN: THE ROLE OF MIO-ECSDE

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Εκπαιδευτικός, -Επιστημονικός και -Πολιτιστικός Οργανισμός των Ηνωμένων Εθνών - Έδρα & Δίκτυο UNESCO για τη Διαχείριση και την Εκπαίδευση για την Αειφόρο Ανάπτυξη στη Μεσόγειο ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ Εθνικό και Καποδίστοιακό Πανεπιστήμιο Αθηνών

## **MIO-ECSDE AT A GLANCE**



#### Who we are

We are a non-profit Federation of **over 128** Mediterranean NGOs for Environment and Sustainable Development, closely cooperating with academia and research organisations

#### What we do

We act as a technical and political platform for the intervention of NGOs in the Mediterranean scene

#### **Our mission**

Our mission is to protect the Natural Environment and Cultural Heritage and promote Sustainable Development in a peaceful Mediterranean

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## **MIO-ECSDE's ROLE IN ADDRESSING MARINE LITTER**

Raising public awareness

Strengthening decision making & implementation

MIO-ECSDE's contribution to tackling marine litter

Filling in the knowledge gaps

Promoting coresponsibility & consensus building

Building capacities

# MARINE LITTER IN THE MEDITERRANEAN

Most of the big cities and industries are situated along its coasts

The region is a popular tourist destination receiving every year approx. 200 million tourists

Waste disposal sites are not always well managed and are often coastal

The Mediterranean is a "semi-closed" sea with a slow renewal rate

It has a lot of maritime traffic

It is a deep sea (up to 4.000 meters) and litter "trapped" at these depths will take many years to decompose

High temperatures accelerate litter degradation into secondary products that are difficult to collect or treat

It is widely accepted that the Mediterranean is one of the most affected seas by marine litter worldwide

# Combating ML at the Mediterranean coasts and sea

The Regional Plan for Marine Litter Management in the Mediterranean of the Barcelona Convention (Decision IG.21/7)

#### Main objectives

- Prevent and reduce to the minimum marine litter pollution in the Mediterranean and its impact on ecosystem services, habitats, species in particular the endangered species, public health and safety;
- Remove, to the extent possible, marine litter by using environmentally respectful methods;
- Enhance knowledge on marine litter;
- Make sure that its management is performed in accordance with accepted international standards and approaches.



# MEASURES TO TACKLE MARINE LITTER



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## MARINE LITTER & MIO-ECSDE ACTIONS ON THE SCIENCE-POLICY-SOCIETY INTERFACE

Interreg Med PLASTICBUSTERS MPAs (2018-2022)

LIFE+ Operating grant for NGOs (2018-2019)

Interreg Med ACT4LITTER (2017-2018)

EU SWIM-H2020 SM (2017-2019) & follow up

IPA-Adriatic DeFishGear (2013-2016)

# **MIO-ECSDE's recent participatory-science showcase**







#### ASSESSING MARINE LITTER ON MEDITERRANEAN BEACHES

Filing in the knowledge gaps via a participatory-science initiative

- One of the very few collective efforts of NGOs to assess marine litter deposited on Mediterranean beaches, in a comprehensive and harmonized way.
- The study provides fit-for-purpose data and baseline information on the amounts, composition and sources of marine litter in several Mediterranean beaches.
- ✓ It is a useful tool for decision-makers to gear up their efforts in the combat against the marine litter threat and identify targeted measures to tackle this threat at its source.
- The campaign carried out within the framework of the Annual Programme of MIO-ECSDE supported by the LIFE+ Operating Grant for NGOs- brought together 7 environmental NGOs from 5 EU Member States.

## TOP 20 items found

	Item code	Item name	Items count	%
1	G79	Plastic pieces 2.5 cm > < 50cm	9846	26
2	G27	Cigarette butts and filters	4555	12
3	G21	Plastic caps/lids from drinks	3086	8,1
4	G95	Cotton bud sticks	2373	6,3
5	G82	Polystyrene pieces 2.5 cm > < 50cm	2207	5,8
6	G35	Straws and stirrers	1128	3,0
7	G80	Plastic pieces > 50 cm	817	2,2
8	G83	Polystyrene pieces > 50 cm	755	2,0
9	G200	Bottles, including pieces	675	1,8
10	G30	Crisps packets/sweets wrappers	661	1,7
11	G124	Other plastic/polystyrene items (identifiable)	624	1,6
12	G22	Plastic caps/lids from chemicals, detergents (non-food)	595	1,6
13	G50	String and cord (diameter less than 1cm)	589	1,6
14	G24	Plastic rings from bottle caps/lids	554	1,5
15	G23	Plastic caps/lids unidentified	466	1,2
16	G33	Cups and cup lids	427	1,1
17	G3	Shopping bags, incl. pieces	410	1,1
18	G156	Paper fragments	378	1,0
19	G84	CD, CD-boxes	354	0,9
20	G31	Lolly sticks	341	0,9

## MIO-ECSDE & ACT4LITTER: Supporting MPA managers to tackle marine litter

Identification of potential measures to address marine litter issues in Mediterranean MPAs

Contract March

Feasibility assessment of measures through the development of a decision-making tool

Development of 9 MPA-specific management plans

Elaboration of a joint governance scheme for improving marine litter management in Med MPAs

Assessing marine litter on beaches in Mediterranean MPAs



©Axios Delta National Park

THE ACT4LITTER MWM

© MPA Levante de Mallorca-Cala Ratjada

© MPA Karaburun-Sazan

© Ebro Delta Nature Park

LITTER FREE IS THE WAY TO BE!

## **ACT4LITTER MLWM - WINTER EDITION**

	Code	Items name	Percentage
1	G79	Plastic pieces 2.5 cm > < 50cm	17.3
2	G82	Polystyrene pieces 2.5 cm > < 50cm	5.9
3	G23	Plastic caps/lids unidentified	5.6
4	G45	Mussels nets, Oyster nets	5.6
5	G124	Other plastic/polystyrene items (identifiable)	5.3
6	G8	Drink bottles >0.5l	4.4
7	G210	Other glass items	3.8
8	G7	Drink bottles <=0.51	3.4
9	G21	Plastic caps/lids from drinks	3.3
10	G171	Other wood < 50 cm	3.3
11	G80	Plastic pieces > 50 cm	3.0
12	G24	Plastic rings from bottle caps/lids	2.6
13	G73	Foam sponge	2.2
14	G22	Plastic caps/lids from chemicals, detergents (non-food)	2.2
15	G3	Shopping bags, incl. pieces	1.9
16	G27	Cigarette butts and filters	1.9
17	G50	String and cord (diameter less than 1cm)	1.5
18	G63	Buoys	1.5
19	G165	Ice-cream sticks, chip forks, chopsticks, toothpicks	1.4
20	G200	Bottles, including pieces	1.4

A total of 22,867 marine litter items were recorded at 20 coastal and marine protected areas located in Albania, France, Greece, Italy, Spain and Turkey. The average litter density of 1.2 items/m<sup>2</sup> found within this study is considered to be relatively high.

## MIO-ECSDE & SWIM-H2020 SM: EXPERT FACILITY ACTIVITIES ON ML

Algeria - EFH-DZ-4: Technical assistance for the characterization of marine litter in the fourteen (14) coastal wilayas.

Algeria - EFH-DZ-5: Support for the development of a national management plan for marine litter.

Egypt - EFH-EG-3 : Assessment of marine litter in the Egyptian Mediterranean coastline and proposed management options.

Morocco -EFH-MO-4 : Strengthening participatory coastal management for the reduction of marine litter in the regions of Tangier-Tetouan and Al Hoceima.

## MIO-ECSDE & DEFISHGEAR: ASSESSING THE SOCIOECONOMIC IMPLICATIONS OF ML



Photo: Thomais Vlachogianni

# ASSESSING THE SOCIO-ECONOMIC IMPACTS OF MARINE LITTER | The DeFishGear showcase



Understanding the socio-economic implications of marine litter in the Adriatic-Ionian macroregion. IPA-Adriatic DeFishGear project and MIO-ECSDE, 2017.



#### 548 completed surveys!

### DIRECT & INDIRECT COSTS OF ML IN THE ADRIATIC – IONIAN SEA

- ✓ For the fisheries sector the average annual cost of marine litter per vessel reaches € 5,378 (cost of repairs of damages, loss of revenue due to the smaller catch, loss of time spent on clearing and repairing nets, etc., reported by fishermen per fishing vessel per year). Given this, the total losses to the fisheries sector in the Adriatic-Ionian macroregion were calculated to be € 18.19 million per year, which represents one third of the marine litter costs to the EU fishing fleet (€ 61.7 million per annum).
- ✓ On average, the annual direct and indirect marine litter related costs for the aquaculture sector were assessed to be € 3,228 per aquaculture farm unit.
- ✓ The total annual cost of managing marine litter reported by 38 harbours and marinas in the Adriatic-Ionian macroregion was € 323,550 with an average annual cost of € 8,518 per harbour.
- ✓ The average annual amount per tourism related business of varying size and type was calculated to be € 5,685 per year, which can be considered as a substantial expense.
- ✓ The total cost of removing beach litter reported by the 32 municipalities was € 6,724,530 per year, with an average of € 216,920 per year per municipality. On average, the municipalities spent some 5% of their budget for marine litter cleanup operations.

#### THE WAY FORWARD | TOOLS & PRINCIPLES TO ADDRESS ML



## NO REGRET, URGENT/AD HOC MANAGEMENT MEASURES ADDRESSING THE CURRENT SITUATION Regulation

- ✓ Effective management of urban and other types of solid waste from landbased sources, taking into account the waste hierarchy, the urgency of situations, and national/local conditions for efficient reduction of uncontrolled, unintentional input of waste into the sea through all pathways. Full implementation of existing, relevant EU legislation is a prerequisite for this approach.
- ✓ Better management of ship-generated litter e.g. adequate number and better functioning of port reception facilities.

#### **Funding for Science & technology**

✓ Mobilizing financial support and technological innovations for specific, urgent actions (including environmentally friendly cleaning actions) that contribute to the reduction of marine litter in hotspots (see Sustainable Ocean Summit, Hong Kong, November 2018). Introduction/application of appropriate tools (incentives, taxes, levies, etc.) may enhance the effectiveness of such measures.

## MEASURES FOCUSING ON POLICY, REGULATORY FRAMEWORKS AND INSTITUTIONS

### Regulation

- ✓ Improvement of the marine litter policy and regulatory framework by systematically exploiting the full potential of relevant EU Directives (such as the Waste Framework Directive, the Packaging and Packaging Waste Directive, the Landfill Directive, the Port Reception Facilities Directive, etc.) and by ensuring their full coherence and appropriate synergy with the MSFD;
- ✓ Adoption of ambitious targets to reduce marine litter at all relevant levels, giving priority to "lower hanging fruits" but also to sources of marine litter with the strongest impact, such as for example microbeads or plastic bags.
- ✓ Effective implementation of Regional Plan for marine litter management in the Mediterranean.
- ✓ Fostering collaboration with global, regional and sub-regional organizations, to address the transboundary aspects of marine litter and enhance the effectiveness of multilateral initiatives aimed at preventing, reducing and managing marine litter.
- ✓ Promotion of the green/circular economy through increased resource efficiency facilitating sustainable consumption and production patterns, including cradle-to-cradle life cycle design, high quality recycling and sustainable packaging, encouraging extended producer responsibility and environmentally responsible fishing and maritime transport practices.

## MEASURES ADDRESSING KNOWLEDGE NEEDS RELATED TO MARINE LITTER

#### **Science & technology**

- ✓ Establishment of joint and/or coordinated monitoring and reporting at sea-basin or subsea-basin level to address shortcomings and gaps related to marine litter, including the establishment of an EU baseline. Full exploitation of SEIS and EMODNET.
- ✓ Review, revision, improvement and harmonization of existing monitoring and assessment methodologies and development of new /additional ones, whenever needed, for the comprehensive monitoring of the distribution and impacts of marine litter.
- Capacity building/sharing of experiences and good practices on marine litter monitoring.
- ✓ Improvement of scientific knowledge on sources, amounts, pathways (with emphasis on riverine inputs), distribution, trends, nature and impacts of macro-, micro- and nano-litter, including the effects of microplastics and their additives and absorbed substances on marine biodiversity and human health. Appropriate provision in the H2020/FP8 Programme. Better utilization of relevant research results to enhance marine litter data.



 Encouraging the involvement of citizens in monitoring activities through concerted 'citizens science' e.g. the EEA's Marine Litter Watch App.

## MEASURES ADDRESSING IMPROVEMENT OF ATTITUDES AND BEHAVIOR

#### **Education/awareness**

- Systematic promotion of sound educational and awareness raising programmes on marine litter at all levels of formal, non formal and informal education.
- Support of civil society organizations and programmes promoting marine litter reduction measures (NGO's companies, clean-ups, etc) and facilitating initiatives preventing waste from entering the marine environment.
- Facilitating participation of stakeholders including individual citizens in networks committed to take action to prevent, reduce, monitor and manage marine litter.



## **IN CONCLUSION**

- 1. Marine Litter is a rapidly growing international problem which is becoming worst, due to accumulation and fragmentation of waste.
- 2. Marine litter is a problem understood and perceived by everybody directly related to his/her behavior. Therefore, we need to work in changing attitudes and behavior related to consumption and management at household level.
- 3. Complex National and Transboundary issues can be addressed if control and sound management is imposed at source.
- 4. Existing EU legislation and relevant International regulations (Regional Seas Plans) need to be harmonized/coordinated and complemented with the necessary means for their implementation.



For more than twenty five years joining forces & building bridges in the Euro-Mediterranean area

#### Thank for your attention!

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