

Knowledge and tools to manage the impact of marine litter in Mediterranean Marine Protected Areas (MPAs)

State of play and challenges ahead

Workshop Report

Session on “Marine litter knowledge and tools in Mediterranean Marine Protected Areas” at the MARLICE International Forum on Marine Litter and Circular Economy, Seville, Spain, 11 April 2019

Organised by MedCities, ETC-UMA, Plan Bleu, and the Interreg MED Biodiversity Protection Community featured by PANACeA

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Key Messages:

The need to tackle marine litter

- The Mediterranean Sea is one of the most important biodiversity hotspots of the world; it represents less than 1% of the global ocean surface, but hosts almost 20% of global marine biodiversity.
- The Mediterranean Sea is also one of the areas that is most affected by marine litter in the world, especially plastics (70-90% of the total).
- Marine litter in the Mediterranean originates mainly from land-based sources such as tourism and recreational activities, poor waste management practices, discharges of untreated municipal waste, and industrial outfalls. Rivers are an important pathway through which a considerable quantity of marine litter enters into the coastal and marine environment. Additionally, sea-based activities such as maritime transport, fisheries and aquaculture also contribute to the inputs of litter in specific contexts, especially through the direct discharge of waste and through Abandoned, Lost, or otherwise Discarded Fishing Gears (ALDFG).
- Marine litter is a major threat to marine living organisms. A vast array of species in the Mediterranean are affected by litter, from invertebrates like polychaetes, ascidians, bryozoans, and sponges, to fishes, reptiles, and cetaceans, mainly through entanglement, ingestion, colonisation, and rafting. Moreover, marine litter may be colonised by micro-organisms, and be used as a transport vector for non-native and invasive species, affecting marine ecosystems and their functioning. In parallel, there are increasing concerns among scientists, policymakers, and society on the impacts of marine litter not only on key maritime economic sectors (like tourism) but potentially also on human health, livelihood, and wellbeing.

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- To tackle marine litter in the Mediterranean, it is necessary to address six main challenges:
 1. Have increased, long-term information and develop a reliable knowledge base on marine litter and its impacts on biodiversity and humans for the whole Mediterranean.
 2. Have harmonised protocols for monitoring and assessing marine litter in the various marine compartments, and its impacts on biodiversity.
 3. Empower local managers (especially in Protected areas) with the necessary tools and knowledge to tackle marine litter.
 4. Develop clearly defined baselines and targets to measure trends and progress.
 5. Ensure effective cross-border and cross-sector cooperation and coordination at the Mediterranean (especially non-EU) scale in the implementation of existing policies.
 6. Improve waste management practices following the waste hierarchy, to prevent the leakage of litter into the environment.
 - Several projects within the Biodiversity Protection Community and beyond (Act4Litter, MedSeaLitter, AMAre, Plastic Busters MPAs, Pharos4MPAs, and BlueIslands) target the issue of marine litter in the Mediterranean, by focusing on specific aspects connected to some of the challenges identified:
 - Challenge 1 – increasing knowledge on macro and micro litter presence on beaches, floating on the surface, and in biota;
 - Challenge 2 – refining current assessment protocols and methods, which have been included in the EU Guidance for monitoring in 2019;
 - Challenge 3 – testing innovative tools to support marine litter assessment, such as drones and other Unmanned Aerial Vehicles (UAVs), geo-spatial tools; validating marine litter transport and accumulation models;
 - Challenge 4 – working towards developing indicators to establish clear baselines and reduction targets in the framework of both the EU MSFD (Marine Strategy Framework Directive) and the UNEP/MAP Integrated Monitoring and Assessment Programme (IMAP); and
 - Challenge 5 – developing tools and measures with MPA managers, such as marine litter Action Plans and a Joint Plan for Action at Mediterranean level.

During the three roundtables of the session, the convenors presented the achievements of some of these projects, which relate to some of the challenges identified. They are presented in the next Section.

The Interreg MED Biodiversity Protection Community

The Interreg MED Biodiversity Protection Community featured by PANACeA has among its priorities to streamline the efforts of around 200 regional institutions to reinforce actions at the Protected area and ecoregional planning and management level to better tackle transboundary pressures, including pollution and marine litter, and foster a more integrated and holistic approach to environmental protection and support a greener economy model.

This community has advanced in identifying key elements needed to operationalise the coordination and synergies among multiple management scales based on evidence and on participatory approaches: during the CBD COP side event co-organised with the Union for the Mediterranean Secretariat in November 2018, major ecoregional planning and management approaches and tools to tackle transboundary pressures like pollution and climate change impacts were discussed in an effort to ensure the ecological functioning of Mediterranean ecosystems, while considering multiple pressures and trade-offs.

Tackling marine litter: current joint achievements

Challenge 1: Marine Litter Data and Information

Ignasi Mateo presented the **ACT4LITTER** project, which conducted four editions of the Marine Litter Watch Month campaign in winter 2017, spring, summer, and autumn 2018. The purpose of this initiative was not only to gather information about marine litter



ACT4LITTER – Beach litter collected during the Marine Litter Watch Month campaigns.

quantity, distribution, and composition in Mediterranean beaches, but also to engage MPA managers in an exercise of participatory science, which would contribute to build the skills needed to monitor marine litter.

The winter edition took place from mid-December 2017 to mid-January 2018; it engaged about 20 MPA management bodies, NGOs and other organisations in coastal and marine protected areas in Albania, France, Greece, Italy, Slovenia, Spain, and Turkey.

Marine litter was measured and classified in a total of 28 sites in 22 beaches, using the methodology developed by the Thematic Group on Marine Litter for the Marine Strategy Framework Directive (MSFD TG ML). Overall, the Marine Litter Watch Month proved to be an effective tool for gathering essential marine litter data, providing valuable baseline information on the amounts and the full spectrum of marine litter deposited on the beaches of protected areas in the Mediterranean. Moreover, it served as a useful blueprint for setting up participatory-science campaigns.

Morgana Vighi illustrated the activities of **MEDSEALITTER** involving monitoring floating litter and analysing litter ingestion by marine fauna across the whole Mediterranean:

- Floating macro-litter → They used small aircrafts and passenger ferries as platforms of opportunity to monitor floating macro-litter and marine macro-fauna species such as cetaceans, turtles, and sharks, on a Mediterranean-wide scale along fixed ferry routes. This provided an initial estimate of the areas and seasons at higher risk of overlap between sensitive species and marine litter presence. In parallel, sailing and small motor boats were used to collect data on a small scale, both inside and around specific MPAs. The smaller scale monitoring yielded a finer estimate of smaller litter items (i.e. items between 2.5 cm and 20/30 cm, which are not detected during aerial or ferry monitoring), as well a more detailed categorisation of items, providing also information on possible sources of litter. Aerial photographs were captured with Unmanned Aerial Vehicles (UAVs) and aircrafts to investigate the opportunity to automatically detect and quantify floating objects.
- Marine litter ingestion → micro- and macro-litter ingestion were analysed in loggerhead turtles (*Caretta caretta*) thanks to the cooperation of stranding networks working across the coasts of Spain, France, Italy, and Greece, which were used to collect dead and live samples. Micro-litter ingestion was analysed in the bogue (*Boops boops*) in selected areas across these four countries, including fish caught in MPAs and outside these areas. Micro-litter ingestion was also analysed in invertebrates: selected species of polychaeta were analysed from the coast of Greece and Italy.

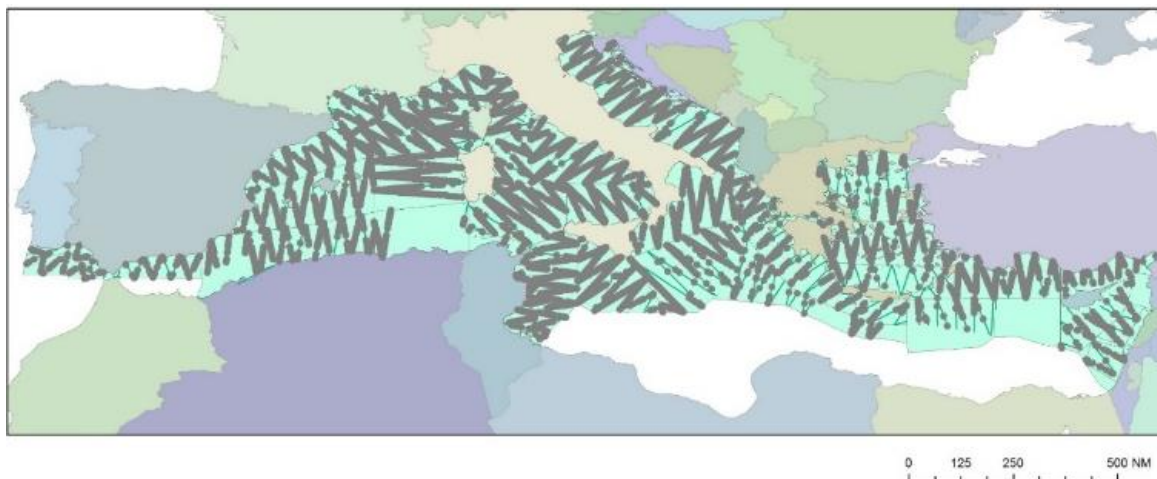
The **ACCOBAMS Survey Initiative (ASI)**, presented by **Célia Le Ravallec**, aimed to gather essential data on the abundance and distribution of cetaceans across the whole Mediterranean by combining

aerial- and vessel-based visual survey methods and passive acoustic monitoring. These methods were also used to collect data on the abundance and distribution of floating marine macro-litter. The ASI will generate a considerable amount of essential data on the distribution and abundance of cetaceans, which will help to more effectively tailor the conservation measures to be adopted in the future at the regional and national scales. In parallel, the results on floating marine litter will be

“There is a huge gap in our knowledge of marine litter, especially between the northern and southern shores of the Mediterranean, between the Eastern and Western Med, and in specific environments like deep-sea and dark habitats”.

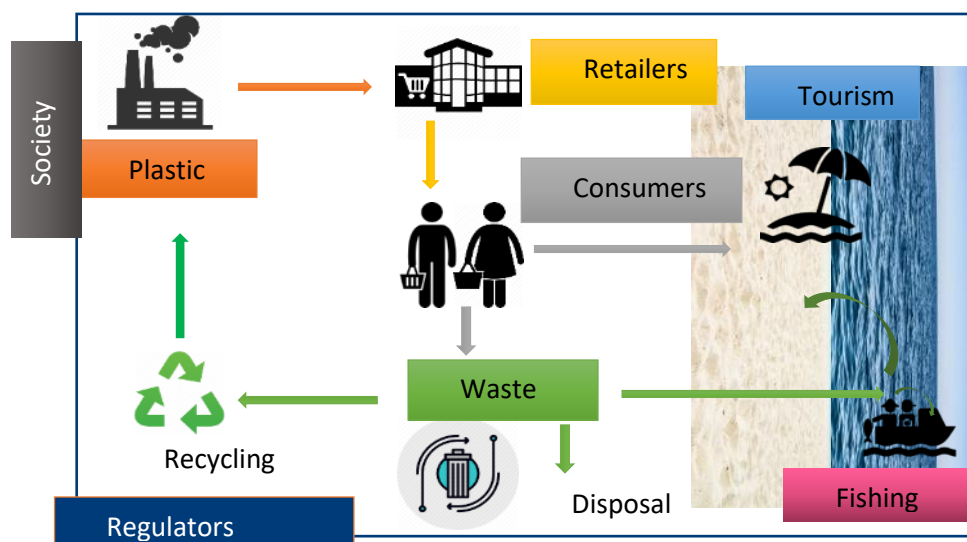
Marie-Aude Sévin-Allouet, IUCN-MED

shared with other projects and initiatives, in particular with the Plastic Busters MPAs and MEDSEALITTER, aimed at assessing and modelling the risk to marine biodiversity (e.g. cetaceans and sea turtles) from their interactions with marine litter.



ACCOBAMS SURVEY INITIATIVE – Results of the presence of floating marine litter in the Mediterranean (summer 2018)

Gloria De Paoli presented the study conducted by **ACTeon for Plan Bleu** to understand the pathways through which plastic bags reach the sea, the goal being to assess the value chain of plastic bags and bottles from producers to consumers and to waste management. This knowledge is used to identify the economic and social groups that are involved, and that share in the responsibilities for littering the marine environment, as well as the costs and benefits associated with measures that address marine pollution from plastic bags and bottles.



ACTeon for Plan Bleu – Socio-economic pathways of plastic bottles and plastic bags.



George Triantafyllou discussed the aim of the **CLAIM** project, which is to study the development of innovative technological solutions to tackle marine litter. One of the innovative tools developed by the CLAIM project is a model of the end result and distribution of marine litter in the Mediterranean. This model generates knowledge on litter entry points, flows, and accumulation areas, which is essential to support decision-making, as well as a communication tool to inform and engage stakeholders and the broader community.

Challenge 2: Marine Litter Protocols

Harmonised protocols provide a common instrument that would allow MPA managers, researchers, NGOs and other institutions involved in marine litter monitoring to collect information in a standardised way. This, in turn, would allow the results



MEDSEALITTER – Snapshots of the visual monitoring activities, and of the use of UAVs to monitor floating marine litter.

obtained to be compared and collected in a common database, providing the basis for a Mediterranean assessment of marine litter amount, distribution, and impacts on biota.

MEDSEALITTER proposed the refinement of current monitoring protocols for floating marine litter, and for the ingestion of marine litter, which were recently included by the EU MSFD TG ML in the review of the Guidance on Monitoring of Marine Litter in European Seas in 2019.



The common protocols are intended first and foremost for MPAs, but, depending on the MPA size, personnel, and financial power, not all of the protocols described may be applied. MEDSEALITTER protocols have been categorised according to the monitoring platform and the technique used, and the sampling scale addressed; a table was also prepared to help the interested stakeholders to decide the most appropriate protocol to apply based on its cost, scale of applicability, training needed, etc. A number of training activities have been performed in spring and summer of 2019 to train MPA personnel on how to effectively implement the protocols in their areas, and what to do with the data obtained.

“Even if developed and implemented at the national level, monitoring mechanisms are not always consistent and adequately financed to support a sustainable Blue economy in the Mediterranean region”.

George Triantafyllou, HCMR

The main constraints in the application of these protocols are related to the economic cost of monitoring activities, which not all MPAs and not all Mediterranean countries would be able to afford. This is especially valid for southern Mediterranean countries, which were not actively involved in the MEDSEALITTER project, but whose contribution would be essential for a common and holistic assessment of marine litter on a Mediterranean scale.

The first step forward to improve the harmonisation of marine litter monitoring on a Mediterranean scale would be the communication among different projects and/or stakeholders involved, and the creation of networks, such as those already in place for cetacean and turtle stranding, which could be used to effectively share data and information on a basin level.

Challenge 3: Empowering MPA and other managers

The **ACT4LITTER** project actively focused on empowering MPA and other managers with tools and measures to tackle marine litter, through three main initiatives:

- A total of 105 showcases of effective measures that can be implemented by MPA managers were identified in the literature and classified into 5 broad categories: regulatory policy instruments; voluntary agreements; economic/market-based instruments; awareness raising and environmental education; and, practices and activities.
- The Decision-Making Tool (DMT), an innovative system developed to support MPA managers in identifying the most effective and feasible measures to tackle marine litter in their specific context.
- The development of 9 Action Plans to curb marine litter in pilot MPAs in Croatia, Greece, Italy, Slovenia, and Spain. These Action Plans were developed step-by-step by engaging all relevant stakeholders in the identification of effective priority measures against marine litter, which would reflect their specific contexts and characteristics.

“Working with all the people and stakeholders has been an amazing experience, because people have really started to think about what they can do, what they can control to change the situation and to help increase our knowledge of the situation in our MPA. It really changed our minds”.

Gloria García Hoyo, Cabo de Gata-Níjar Natural Park

Any political or economic instrument that addresses marine litter entails certain costs and benefits to the different economic and social actors involved. The socio-economic study performed by **ACTeon** for Plan Bleu aims to assess the expected costs and benefits of measures to reduce pollution from plastic bags and bottles in the Mediterranean, across the socio-economic groups involved in the pathways of plastics from production to the sea. The results of this study have important policy implications, raising fundamental questions on who is responsible for pollution and should pay according to the polluter pays principle, and on the possible ‘undesirable’ effects of a measure to society, such as jobs loss, economic slowdown, and income reduction, including the possibility that consumers evade legal obligations.

“We already know what is needed to tackle unsustainable production and consumption patterns and prevent pollution in the Mediterranean. Now it is time to do it; implementation is what we need now”.

Magali Outters, SCP/RAC Catalan Waste Agency



These issues should be addressed through appropriate accompanying measures (e.g. assistance in re-conversion of the plastic industry, awareness campaigns for consumers) to minimise negative impacts for society and to boost the effectiveness of the measure. In parallel, the identification of the expected benefits of a measure is a key argument supporting its introduction, and in boosting its acceptance by all sectors of society. The risk here is that, often, benefits for society (e.g. ecosystem services) are scarcely documented, and they can easily be underestimated – whereas the costs are much easier to assess, as these are mostly direct costs linked to the implementation of a measure or to its direct economic impacts (many data are available).

The **CLAIM** project aims to develop and test five marine litter collection tools: a litter pre-filtering system for wastewater treatment plants; a photo-catalytic device to degrade microplastics in wastewater treatment plants; floating booms in river mouths to prevent litter from entering into the sea; a small-scale pyrolyzer to transform solid waste into combustible gas; and a ferry-box for data collection and monitoring. These tools may be used by a broad range of stakeholders in the public and private sector, such as municipalities and industries at the local or regional level, to prevent waste discharge from citizens and/or private activities. The next steps in this line of research will be the development of systems to automatically detect and separate different types of plastics collected.

Challenge 4: Cross-border cooperation in the Mediterranean

ACT4LITTER developed a Joint Plan of Action to curb marine litter in Mediterranean MPAs. Based on the nine Action Plans elaborated and adopted by the nine pilot MPAs, the Joint Plan applies their strategic elements to tackle marine litter in all pelagic and coastal Mediterranean MPAs. These results are being mainstreamed through the Plastic Busters MPAs project, which is ensuring their uptake into a joint governance plan for managing marine litter in Mediterranean MPAs.

The **ACCOBAMS Survey Initiative (ASI)** was made possible thanks to the personal commitment and the ability of all the partners involved, who collaborated for the success of this initiative. In particular, in the context of the global 2020 framework where new objectives for the conservation of biodiversity will be adopted, the sound knowledge and the overall vision provided by the ASI is a unique tool that is helping ACCOBAMS Parties to commit and contribute to this urgent mobilisation for biodiversity.

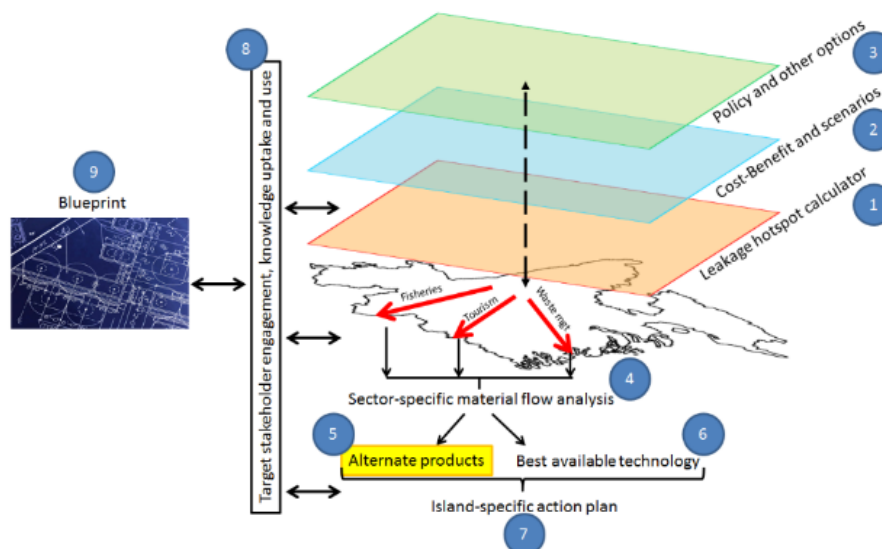
“To improve cooperation at the Mediterranean level, it is necessary to work at a technical level, and to open a fruitful dialogue with other sectors to explain the opportunities and benefits of environmental protection”.

Marie-Aude Sévin-Allouet, IUCN-MED

The IUCN-MED **Plastic Waste-Free Islands** was presented by **Marie-Aude Sévin-Allouet**; it aims to demonstrate effective, quantifiable solutions for addressing plastic leakage from islands, to drive forward the circular economy agenda. The four specific objectives of this project are:

- Improve knowledge of waste generation and demonstrate a measurable increase in policy effectiveness;
- Enhance adoption of measures to reduce plastic leakage from tourism, fisheries and waste management sectors;
- Generate sector-specific action plans for alternative value chains; and
- Develop a blueprint for islands to prevent plastic waste leakage.

The first component of the project is the Plastic hotspot calculator, a tool to assess plastic leakage distribution, abundance, types, sources, pathways and sinks, and to identify a feasible set of ‘hotspots’ to reduce leakage. Second, an economic and policy analysis will be conducted to assess costs and benefits of current plastic flows, model cost and benefits of potential future scenarios, and assess current policy frameworks and provide options for priorities identified through the hotspot and economic modelling. Third, a detailed material flow analysis will be performed for each island, to provide information on plastic leakages across the tourism, fisheries, and waste management sectors, generating proof-of-concepts for alternative products with plastics that can be repurposed, and recommending alternative feed stocks to replace plastics that cannot be repurposed. Fourth, sector action plans will be devised for fisheries, tourism, and waste management.



Funded by the Swedish International
Development Cooperation Agency



IUCN-MED – The main components of the Plastics Waste-Free Islands project.

Recommendations on the path forward

Despite the results and the achievements of these projects, several gaps still exist, which should be addressed by future action to tackle marine litter in the Mediterranean, with a special focus on MPAs as sentinels of the Mediterranean coastal and marine environment. Identifying these gaps and recommending further actions to tackle marine litter in the Mediterranean build on the outcomes of the PANACeA Community Building Event, which took place on Friday 12 April 2019.

1. Marine litter data and information

We need to further support the scientific assessment and monitoring of marine litter, and ensure the creation of long-term data and information series that cover the whole Mediterranean basin. Moreover, further research is needed to close current knowledge gaps on the following aspects:

- marine litter fluxes, focusing on aspects such as the cost of waste mismanagement, and including further research on the mechanisms of atmospheric deposition of waste into water;

- socio-economic impacts of marine litter on maritime sectors, including cost-benefit analyses of specific policies (e.g. on Port Reception Facilities) and measures such as Fishing for Litter, and Adopt-a-Beach;
- physical (e.g. ingestion and entanglement) and chemical (e.g. toxicological effects of Persistent Organic Pollutants and other chemical additives as endocrine disruptors, pathogen transfer) impacts of marine litter on biota;
- the potential impacts on human health, through the transfer of chemicals from the gastrointestinal tract to the muscle of fish and shellfish, and to humans;
- causes and occurrence of Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG);
- mechanisms of degradation of marine litter in the environment, including the consideration of “biodegradable” materials with enhanced degradation properties; and
- research towards a clearer definition of baseline values and reduction targets against which to measure progress in tackling marine litter.

“The impact of marine litter on human health through fish consumption is not proven: we strongly need further research to investigate the potential transfer of chemicals through the digestive and circulatory systems to fish muscle”.

Cristina Fossi, University of Siena

We also need to switch from basic to applied science, focusing the scientific investigation on practical and effective solutions for marine litter prevention through the research and development of eco-design solutions to favour plastics recycling, and avoiding the use of non-recyclable plastics by developing new materials. In addition, it is necessary to develop further solutions for collecting marine litter in all compartments, from the beach to the water surface, water column, and seabed.

2. Refining and improving assessment protocols

We need to further support the development and employment of common protocols and standardised methods for marine litter assessment in the Mediterranean, especially in relation to different size categories, sampling procedures, and reference values. More specifically, the use of existing protocols should be promoted, and new protocols should be developed for monitoring micro-litter, the entanglement of marine species, the effect of litter colonisation by small species, and for deep-sea areas on a Mediterranean scale.



From left to right: Magali Outters (SCP/RAC Catalan Waste Agency, Spain), Cristina Fossi (University of Siena, Italy), and Maria Francesca López Cortès (National Park of Cabrera, Spain). Picture taken from: <https://www.flickr.com/photos/163689905@N08/47018010784/>.

3. Knowledge and tools for local managers

We need to further support local authorities, MPA managers, and local communities with effective instruments to monitor and manage marine litter, by improving their administrative coordination, capacity building, and technical support, and prioritising upstream solutions following the waste management hierarchy. These instruments and tools must be easily accessible by local managers and policy makers alike, and include visual solutions such as infographics, which can support decision makers and inform citizens and local communities.

“MPAs do not have the instruments to tackle the issue of marine litter at its root. The objective we need to pursue is prevention, to keep waste from ending up in our seas”.

*Maria Francesca López Cortès,
National Park of Cabrera*

4. Tackle unsustainable production and consumption to prevent litter generation

There is an urgent need to improve the sustainability of current production and consumption patterns, towards the establishment and reinforcement of an applied circular economy in the Mediterranean. In this respect, we have to work on applying Extended Producer Responsibility (EPR) schemes to all the categories of items that are found in marine litter. Moreover, we should collaborate with industry and distributors, and reach voluntary agreements to reduce the number



of plastic bags used, and to improve compliance in the case of existing bans. Moreover, additional sustainable public procurement actions should be applied, deposit-refund schemes for beverage packaging items should be further implemented, and waste collection and sorting, and plastic recycling should be improved.

We also need to work at the local level through lobbying activities and by promoting dialogue between citizens, economic actors, and local authorities to find shared solutions to aspects such as improving separate collection and banning specific plastic products (e.g. plastic bags and other single-use plastic products)

5. Cross-border cooperation (especially with non-EU countries)

There is a need to further implement existing legal and policy frameworks at the Mediterranean level, by sharing the knowledge and tools developed by the Interreg MED community for marine litter, especially with partners from non-EU countries. In this regard, it is necessary to strengthen local-to-local cooperation, linking local authorities cross-border (e.g. MPAs, local authorities) to work at the technical level

6. Cross-sector coordination

We should further support the coordination between marine conservation and maritime socio-economic sectors, by incorporating the Ecosystem-Based Management principles into other policies (especially in the Circular Economy Package and the Plastics Strategy), and by fostering a coordinated approach between MPAs, coastal and marine resource managers, and other maritime sectors.

7. Sea-based sources of marine litter

There is the need to ensure a wider coverage of potential sources of marine litter, by supporting projects that address sea-based sources of marine litter like shipping, fishing, aquaculture, offshore installations, and dumping of refuse at sea.

8. Involve local stakeholders and civil society

We need to further connect future projects with society at the local level by implementing actions that seek to enhance the awareness of local communities and the involvement of local authorities, and also by developing participatory science initiatives on marine litter monitoring and assessment, like the ones implemented within the Interreg MED Biodiversity Protection Community.

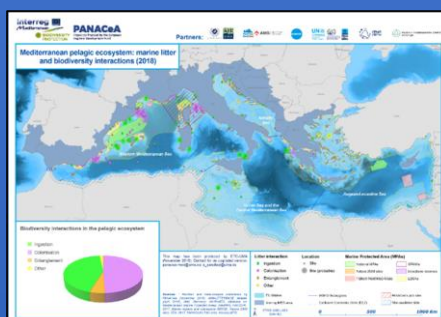
9. Sustainability of achievements

The sustainability of the Community's achievements should be guaranteed by ensuring the creation of a permanent link between the Community outcomes and the existing, Mediterranean-wide knowledge platforms on marine litter such as the [MedBioLitter](#), so as to foster the accessibility to available resources, the transferability of the knowledge and tools generated, and the replicability of the solutions tested.

The [MedBioLitter Database](#) – Marine litter and biodiversity interactions in the Mediterranean

Devised as an entry point to scientific evidence and supporting best practices on protected area management and environmental policy-making in the region, the Mediterranean Biodiversity Protection Platform is the main communication and capitalisation tool developed by the PANACeA project. The objective of the platform is to give visibility to effective methodologies, key project results, and actions towards biodiversity protection. By uniting scientific evidence, practice, and policy, this platform will provide a gateway to all the results derived from the Interreg MED Programme, and a source of knowledge to support regional environmental policy decisions and actions on biodiversity protection, natural resource management, and sustainable growth in Mediterranean protected areas and beyond.

As an integral component of the Platform, the MedBioLitter database includes essential spatial data, results, references, and information on the interactions between marine litter and biodiversity. This database relies on the collective scientific knowledge generated in the Mediterranean region, to support evidence-based regional responses and decisions to the threats of marine litter and its impact on biodiversity.



A snapshot of the MedBioLitter platform

Further information:

The Interreg MED Biodiversity Protection Community
featured by PANACeA



- * Factsheet - Interreg MED Biodiversity Protection Working Group 1 Roadmap
- * Factsheet - Marine litter and biodiversity interactions in the Mediterranean Sea
- * Factsheet - Tackling Marine Litter in the Mediterranean: Knowledge and Tools
- * Policy report - Tackling Marine Litter in the Mediterranean: Knowledge & Tools
- * The Mediterranean Biodiversity Protection Knowledge Platform
- * The MedBioLitter database in the Mediterranean Biodiversity Protection Knowledge Platform

Report CBD Workshop: Ecosystem-based approaches to managing transboundary and cumulative impacts in the Mediterranean, with a focus on marine plastic litter and climate change

Report CBD Workshop: Ecosystem-based approaches to managing transboundary and cumulative impacts in the Mediterranean, with a focus on marine plastic litter and climate change - ARABIC

Photo gallery MARLICE Session on the Mediterranean, 11 April 2019

Photo gallery PANACeA Community Building event, 12 April 2019

Act4Litter

MedSeaLitter

Plastic Busters MPAs

CLAIM

ACTeon for Plan Bleu

ACCOBAMS Survey Initiative

IUCN Plastic Waste-Free Islands





The MED Biodiversity Protection Community featured by PANACeA

The Interreg MED Biodiversity Protection Community brings together a comprehensive network of experts from public & private institutions actively working to protect biodiversity and natural ecosystems in Mediterranean Protected Areas. Filling the current gap between Science, Management, and Policy is one of the priority targets of the Biodiversity Protection Community.

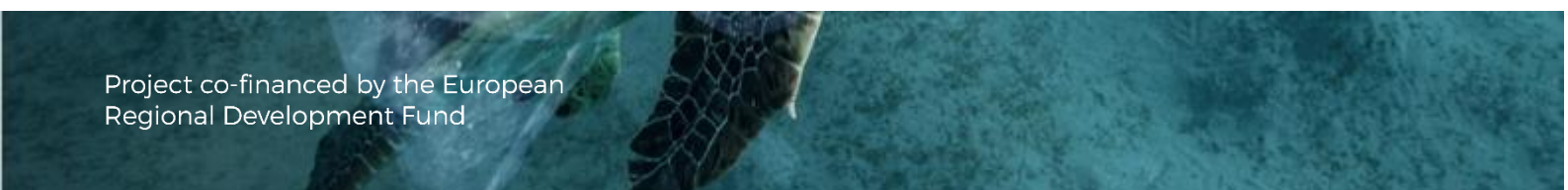
The Interreg MED Biodiversity Protection Community seeks to identify and generate synergies amongst the work of relevant Mediterranean stakeholders, including Protected Area managers, policymakers, socio-economic actors, civil society and the scientific community. The initiative undertakes actions to increase the visibility and impacts of the results of different thematic biodiversity protection projects that are being undertaken by members of its Community, also with the financial support of the Interreg Med Programme, reaching a common and pre-identified strategic target audience.

Several policy aspects are addressed under the umbrella of these thematic projects, covering biodiversity protection, sustainable use of natural resources, ecosystem-based management approaches - including Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) - as well as governance mechanisms. The Community is working to advance more effective biodiversity protection in the Mediterranean through enhanced monitoring and management of coastal and marine ecosystems, specifically targeting more sustainable fisheries, better adaptation to climate change effects, better prevention of marine litter and improved waste management.

PANACeA supports the Interreg MED Biodiversity Protection Community by:

- Offering support as well as communication and capitalization opportunities to the MPs.
- Seeking interconnectivity amongst MPs and offering networking opportunities.
- Helping MPs achieve their results by creating opportunities to exchange and transfer methodologies, tools, practices and knowledge.
- Ensuring adequate deployment of the activities, services, and tools it develops by involving its Advisory Board throughout the project lifetime.
- Mobilizing experts from outside the Interreg MED Programme, especially from the Eastern and Southern Mediterranean region, who focus on biodiversity protection, in order to make possible communication with a wider community of experts and a broader dissemination of the Community's results.
- Building upon the individual projects' needs to create a unique and adapted tool, the MED "Biodiversity Protection Knowledge Platform" (BPKP), as both a community building and a long-term capitalization tool that allows a one-entry-point access to all the knowledge generated by the biodiversity protection community.

The community's Open Seminars / Knowledge Sharing & Community Building meetings are amongst the key tools that have been devised to achieve the above-mentioned objectives. Open Seminars are knowledge-sharing events that seek to share information, advance knowledge, and outside





[Biodiversity Protection Knowledge Platform](#)



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Project co-financed by the European
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