

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



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الجمعية المصرية لحماية الطبيعة

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DISCLAIMER

The content of this publication is based on the contributions to the side event held at the CDB COP 14 at the UN Biodiversity Conference in Sharm El Sheik, Egypt, on 27 November 2018, co-organized by the Secretariat of Union for the Mediterranean and the EU-funded Interreg Med Biodiversity Community coordinated by the PANACeA project/ETC-UMA institute. The information and views set out in this publication do not necessarily reflect the official opinion of the organizations and donors involved.

KEY MESSAGES

“Preserving Mediterranean ecosystems and biodiversity...

- ≈ The Mediterranean hosts unique habitats and species, many of them endemic and endangered.
- ≈ However, the current state of biodiversity is dire. Unsustainable human activities and climate change effects are major threats to biodiversity in the Mediterranean.
- ≈ The resulting pressures know no borders, and multiple pressures from different sectors lead to cumulative impacts, within and beyond Marine Protected Areas (MPAs).
- ≈ Availability of biodiversity data and information, monitoring programmes and sustained scientific research are limited.
- ≈ Ensuring Good Environmental Status (GES) of marine ecosystems and biodiversity is a key Mediterranean priority, underpinned by regional frameworks such as the UfM Ministerial Declaration on Environment and Climate Change and the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean. For EU marine waters, the Marine Strategy Framework Directive aims to achieve GES by 2020. The UN Convention on Biological Diversity sets the Aichi target 11 to protect and effectively manage at least 10% of coastal and marine areas by 2020 with aspirations to increase this percentage in the post 2020 global biodiversity framework.

...through effective Marine Protected Areas...

- ≈ Enforced and well-managed Marine Protected Areas (MPAs) are a powerful tool for effective biodiversity conservation and protection. In the Mediterranean, approximately 7% of the area is under a legal designation. However, for many of the sites there is no information on the existence of plans for designated MPAs, on the management effectiveness, and whether biodiversity targets are being achieved.
- ≈ MPA management should be strengthened through ecological network design, best practice management, and appropriate funding. MPA networks do not only facilitate the exchange of information, knowledge, know-how, and human cooperation among MPA managers, but can also enhance the MPAs' impact for biodiversity conservation through ecosystem representativity, replication and connectivity across different sites.
- ≈ For the designation of new MPAs, ecological sensitivity, significance, integrity, and network coherence are key criteria to consider. Choosing the right location of an MPA based on these ecological criteria is important to ensure that conservation efforts address those habitats and biodiversity in need of protection and natural resources in need of conservation.
- ≈ Working beyond MPAs with an ecosystem-based approach helps addressing transboundary impacts. Biodiversity in the Mediterranean cannot be effectively preserved only through single MPAs that operate in isolation from their surroundings. Ecosystem-based management on a larger scale becomes particularly crucial when addressing transboundary impacts transcending administrative boundaries and areas of national jurisdiction.

...and eco-regional planning and management.”

≈ Eco-regional planning and management approaches are important tools to tackle transboundary pressures such as pollution and climate change impacts. These approaches pursue the ecological functioning of a specific geographic area and eco-region, while considering multiple pressures and trade-offs.

≈ Operational coordination and synergy among multiple management scales is crucial. The application of existing approaches, methodologies and tools for ecosystem-based management in the Mediterranean can be promoted by identifying linkages and complementarities among the tools, and connecting them with the relevant actors at local, national and regional levels.

≈ The links between science and policy that address eco-regional planning and management should be strengthened. Bridging the gap between science, policy and management can be pursued by transforming scientific results into applicable methodologies and tools, and by providing regional platforms for collaboration and exchange. Several projects of the EU-funded Interreg Med Biodiversity Community, besides many other initiatives, generate scientific evidence, management options and policy relevant results, which can also be transferred to other areas.

≈ The consistent involvement of a wide range of stakeholders at different scales in the planning and management of ecosystems is key. In addition to governments and regional intergovernmental bodies, non-governmental organizations, civil society, academia and the private sector from across the region all have a key role to play in protecting biodiversity in the Mediterranean.

KEY ACRONYMS

- ~ ABNJ – Areas Beyond National Jurisdiction
- ~ BBNJ – Biodiversity Beyond National Jurisdiction
- ~ EBM – Ecosystem Based Management
- ~ EBSA – Ecologically or Biologically Significant Marine Area
- ~ MPA – Marine Protected Area
- ~ SPAMI – Specially Protected Area of Mediterranean Importance

CO-ORGANIZERS

Union for the Mediterranean

The Union for the Mediterranean (UfM) is the intergovernmental framework for Euro-Mediterranean cooperation, including 43 countries – 28 EU member states and 15 Southern and Eastern Mediterranean countries. The UfM's mission is "to enhance regional cooperation, dialogue and the implementation of concrete projects and initiatives with tangible impact on our citizens, mainly our youth, in order to address three strategic objectives for the region: human development, stability and integration." The UfM Environment agenda is based on the 2014 Ministerial Declaration on Environment and Climate Change, which addresses the de-pollution of the Mediterranean Sea, Sustainable Consumption and Production (Pollution Prevention) and Climate Change, as well as other environmental issues including ecosystem protection and biodiversity.

The UfM is now moving from a technical towards a political process to define the post-2020 agenda, to be tentatively endorsed through another Ministerial Declaration on Environment and Climate Change in 2020. <https://ufmsecretariat.org>

ETC-UMA

The ETC-UMA is an international research centre based at the University of Malaga, Spain and part of the core team of the European Topic Centre of Urban, Land, and Soil Systems (ETC-ULS) of the European Environment Agency. ETC-UMA is engaged in the development, coordination, and dissemination of environmental knowledge to support science-based practice, evidence-based policy and decision-making. The results of ETC-UMA's applied research target key regional policies affecting European environmental aspects and key Mediterranean and global conventions, namely the UNEP/MAP Barcelona Convention, in the domains of environmental protection, sustainable use of natural resources, and nature-based solutions, as well as strong collaborations with regional key stakeholders. <http://www.etc.uma.es/>

EU-funded Interreg Med Biodiversity Community

The Interreg Med Biodiversity Community of 12 projects in the Mediterranean involves 142 entities from 18 countries, involving more than 60 protected areas, covering most of the Mediterranean northern countries. The projects work with a wide range of stakeholders including public authorities at local and national level, non-governmental organizations, research organizations, and the private sector. The 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 Med programme, reaching a common and pre-identified strategic target audience and fostering the transfer of tools and mechanisms to a broader Mediterranean scale. <https://biodiversity-protection.interreg-med.eu>

ECOSYSTEM BASED MANAGEMENT (EXTRACTED FROM THE PRESENTATION BY DR AMEER ABDULLA, IUCN WCPA)

One of the main tools for biodiversity conservation is MPAs. Today, 17.3% of the marine environment under national jurisdiction is protected, however 61% of the oceans are ABNJs, and only 1.18% of the marine environment in ABNJs is protected. Globally, protected areas cover 7.55% of the ocean, and the Aichi target 11 to protect 10% of coastal and marine areas by 2020 will not be reached. Yet, data on EBSAs shows that there is a significant and unique biodiversity within and between countries, which is not covered by the current network of MPAs.

Globally, it has been realized that there is a need for more tools beyond MPAs. Ecosystem based management (EBM) has been promoted with the idea that management approaches need to go beyond addressing a single impact, species, or habitat, and look at interactions between impacts, species and habitats to manage ecosystem processes and ecosystem services.

This means moving toward a more holistic approach of managing the functioning of ecosystems: with a perspective of managing groups/functional guilds of species, with longer-term time frames, coordinated at local, state, and transnational levels, and with a wider set of tools including marine managed areas, locally-managed marine areas, marine spatial planning, integrated water management, and integrated coastal zone management. Importantly, scale needs to be considered, meaning that management needs to adapt to the fact that functions & processes differ between the local, national and transboundary levels.



RELEVANT AICHI TARGETS

≈ Target 2: “By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.”

≈ Target 10: “By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.”

≈ Target 11: “By 2020, at least [...] 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider [...] seascapes.”

PROJECTS IN THE SPOTLIGHT

AMAre

The AMAre Project, formed by a consortium of academic institutions and managers of MPAs around the Mediterranean, responds to the need for more effective management of Mediterranean MPAs. Therefore, the project's objective is to develop shared methodologies and geospatial tools for multiple stressors assessment, coordinated monitoring and management guidelines and multi-criteria analyses with stakeholders' engagements. Selected MPAs serve as "laboratories" for specific pilot actions to solve hot spots of conflicts affecting marine biodiversity and the services it provides, focusing specifically on two priority conservation habitats, *Posidonia oceanica* meadows and coralligenous formations. Fine scale assessments based on suitably designed monitoring in selected sites within the MPAs were conducted to inform conservation planning and determine appropriate context-specific actions.

A spatial geoportal has been designed and developed to address specifically the needs for monitoring MPAs' management effectiveness, and which includes a wealth of data and maps on abiotic parameters, ecosystem components, human activities, pressures and cumulative impacts in the MPAs under study. AMAre looks also at transboundary issues such as marine litter, investigating the adoption of innovative monitoring techniques to monitor fluxes of litter that may affect MPAs but require collective actions. The ultimate goal of the project is the development of proposed scenarios for the allocation of the spatial and temporal distribution of human activities in ways that ensure good environmental status within the MPAs and beyond, contributing thus to the objectives of the Marine Strategy Framework Directive and the Maritime Spatial Planning Directive. Although AMAre aims mainly to contribute to the reciprocal relationship between science and policy, it also promotes dissemination actions of knowledge sharing and creating awareness on the status of the ecosystems to key stakeholders and the wider public, which are also considered as building blocks while paving the way towards the successful implementation of ecosystem-based management.

<https://amare.interreg-med.eu>

PANACeA

The PANACeA project is an umbrella project that synthesizes the information and knowledge generated by 11 thematic projects on biodiversity conservation in the Mediterranean, under implementation between 2016 and 2019. The project is led by ETC-UMA and co-funded by the EU Interreg Med Programme. PANACeA facilitates a constant dialogue among these projects, extracts and synthesizes results and tables them for scientists, practitioners and policy makers. The PANACeA Project is currently preparing a Policy Brief on tools for marine litter assessment and management synthesizing achievements, identifying gaps and proposing recommendations for further action emerging from the various thematic projects that are linked to PANACeA:

- ≈ *The 'Marine Litter Watch Month' a marine litter assessment tool developed under the project ACT4LITTER, to collect essential data on marine litter on beaches.*
- ≈ *Unmanned aerial vehicles (UAVs), such as drones and wavegliders, to monitor marine litter, as used in the projects AMAre and MEDSEALITTER.*
- ≈ *MPA Marine Litter Action Plans, as developed in the context of the ACT4LITTER project.*
- ≈ *The PANACeA Biodiversity Protection Knowledge Platform includes spatial data & information from several projects and relevant institutions based on harmonized standards and protocols, making them accessible for use by all partners and a wide range of stakeholders from science, policy and practice. <https://biodiversity-protection.interreg-med.eu>*

PlasticBustersMPAs

The Mediterranean basin with its high level of biodiversity is characterized as one of the areas most affected by marine litter globally. The PlasticBusters project aims at addressing emerging gaps in defining the potential impact of marine litter on Mediterranean biodiversity. The project was given the UfM label by the 43 member countries of Union for the Mediterranean in 2016; and in 2018 it obtained financial support from the EU-funded Interreg Med Programme, with 5 million EUR for the PlasticBustersMPAs Project, devoted to preserving biodiversity from marine litter in Mediterranean MPAs. The project is led by the Italian National Institute for Environmental Protection and Research (ISPRA) and the University of Siena.

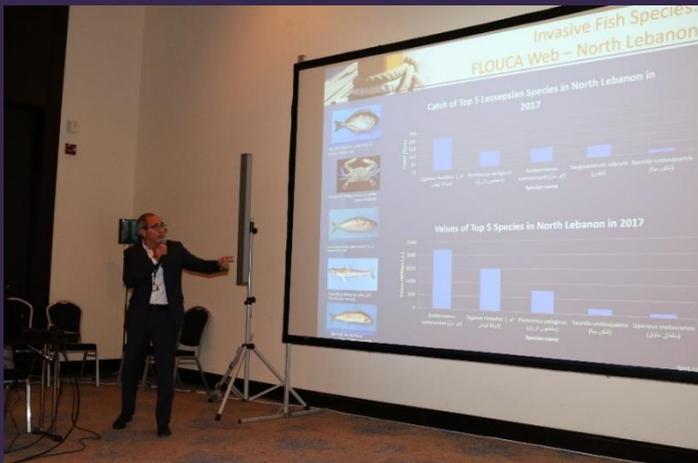
The project has a multidisciplinary and integrated approach and focuses on the following main aims:

- ≈ Developing a harmonized methodological approach for marine litter monitoring
- ≈ Identifying hotspots of marine litter, where marine litter accumulates & species live and feed
- ≈ Assessing the impact of marine litter on biodiversity in MPAs
- ≈ Implementing marine litter prevention and mitigation measures
- ≈ Setting up a joint governance plan for marine litter management in Mediterranean MPAs

The project will capitalize on other relevant initiatives and projects, and will be closely related to the implementation of the EU Marine Strategy Framework Directive and the Regional Plan on Marine Litter Management under the Barcelona Convention. <https://plasticbustersmpas.interreg-med.eu>

CASE STUDY 1: TRANSBOUNDARY AND CUMULATIVE IMPACTS IN THE EAST LEVANTINE CANYON AREA (ELCA). By Lebanese Institute of Environment of University of Balamand

The East Levantine Canyon Area (ELCA) is an Ecologically or Biologically Significant Area (EBSA), with invasive species and oil and gas exploration as two main pressures. It is a refuge and spawning grounds to many biologically important species of Chondrichthyes, marine mammals, reptiles and teleosts, many of them listed as Vulnerable or Endangered on the IUCN Red List. At the same time, it is a main site of all types of coastal and marine activities (fisheries, oil and gas, tourism, etc.). The area is a recipient of invasive fish species, many of them of commercial value. A Strategic Environmental Assessment (SEA) that was conducted by Earth Link & Advanced Resources Development (ELARD) for the oil and gas sector recommended that the ELCA be declared an EBSA by the CBD. The SEA further recommended that the ELCA, regardless of any potential site declaration, be labelled as 'sensitive' to exclude any activity related to the oil and gas industry.



CASE STUDY 2: CUMULATIVE IMPACTS IN THE NATIONAL MARINE PARK OF ALONISSOS NORTHERN SPORADES (NMPANS). By Hellenic Centre for Marine Research

The National Marine Park of Alonissos Northern Sporades was the first Marine Protected Area established in Greece, in 1992, and is currently the largest marine protected area in Europe. It ranges over a wide area covering approximately 2.3150 km², located in the northwest of the Aegean Sea. The Park is a rare sanctuary for the Mediterranean monk seal, *Monachus monachus*, considered as one of the most important in the whole Mediterranean Basin. In this MPA, the AMAre project looked into hotspots of conflict, assessing the cumulative impacts from different human activities on Posidonia meadows and coralligenous formations. Then, properly designed monitoring activities based on the outcomes of the cumulative impact assessment provided fine scale high quality ground truth data and revealed real ecosystem impacts.



This process elucidated the relations between impacts and pressures linked to specific human activities, which were previously addressed based on expert judgement that in many cases was not representative of the actual local conditions. Indeed, evidence showed the degradation of Posidonia meadows down to 15m depth mainly due to vessel anchoring that was subsequently followed by the successful invasion of a Lessepsian seagrass, while coralligenous formations seemed to be highly impacted by fishing activities and ghost fishing. Integration of outcomes from large-scale

assessments with fine-scale ones is considered of crucial importance as it provides evidence-based scientific input to the scenarios for the sustainable management of human activities that are currently being developed for the NMPANS.

CASE STUDY 3: CONSIDERING ECOLOGICAL SENSITIVITY AND FUNCTION AS KEY CRITERIA TO IMPROVE THE MPA NETWORK IN THE ADRIATIC ECOREGION. By European Topic Centre – University of Malaga

The Adriatic region encompasses three major areas, including the Northern Adriatic, the Jabuka/Pomo Pit, and the South Adriatic Ionian Strait, that host critical habitats for different types of sensitive species in the region. An ETC-UMA led study identified spatial incoherence between the network of protected areas present in the region, and the main sensitive areas that serve important ecological purposes, supporting the healthy functioning of the Adriatic ecoregion and the many ecosystem services that it provides. The study calls for the urgent need to prioritise the designation of new protected areas to



complete and strengthen the network of MPAs in the region to ensure ecological connectivity through ecological network design and best practice management. In addition, transboundary and pelagic management tools are necessary to address current and future gaps in the network of MPAs in this area.

ORGANIZATIONS IN THE SPOTLIGHT

Arab Network for Environment and Development (RAED)

RAED is an international non-governmental organization established in November 1990, based in the Arab Republic of Egypt. RAED works in the fields of environment & sustainable development in the Arab world, Mediterranean countries, African and international scope. Under the umbrella of this network, member NGOs have collaborated in implementing projects including waste recycling, energy efficiency, renewable energy, water conservation, safety disposal of hazard wastes and protection of endangered species on both regional and national levels, RAED also executed several cultural and environmental projects in partnership with several international organizations.

RAED works on the regional and inter-regional level have been to fill the gap between science and policy. A focus lies also on awareness raising & capacity building, not only at the community level but also targeting policy makers. RAED also carries out consultations and builds dialogue between different stakeholders beyond NGOs and civil society, for example through national platforms on Sustainable Development in different countries, to expand knowledge and link science with policy.

<http://raednetwork.org>

Institute of the Environment, University of Balamand (Lebanon)

The University of Balamand (UOB) established the autonomous and multidisciplinary Institute of the Environment (IOE) in 2004, to address pressing environmental concerns, to formulate and communicate scientific knowledge, and to promote effective decision-making supportive of sustainable development policies through scientific research and public action. The IOE's main goal is to provide solutions to the sustainability of natural resources within a complex human environment by promoting "Science as the Basis for Decision Making". It aims to motivate the University community, the public at large in Lebanon and the region to participate more effectively in the advancement of ethical and competent environmental practices. The IOE meets its mission and objectives through three main programmes on Marine and Coastal Resources, on Land and Natural Resources and on Environmental and Energy Economics. Fostering partnerships with networks and organizations at the local, regional, and international levels, the Institute enables communities to exert more control over the sustainable management of their natural environment thus leading to the alleviation of problems, addressing developmental concerns and sustaining natural resources for future generations.

<http://www.balamand.edu.lb>

Mediterranean Protected Areas Network (MedPAN)

MedPAN is the network of Marine Protected Areas managers in the Mediterranean. It gathers today over 100 institutions and NGOs that either have direct responsibility for managing Marine Protected Areas (MPA) or are involved in the development of MPAs in the Mediterranean.

A database developed by SPA/RAC and MedPAN incorporates the existing information on different types of marine protected areas in the Mediterranean. These existing legal tools, however, are not all properly managed and implemented. In the Mediterranean, the system of MPAs represents only 7%, and no-take and no-go zones only represent 0.04%. Another concern is the quality of management: from on a survey done among 80 MPAs in the Mediterranean, it resulted that almost 50% have no management plan, and no teams working on the daily management. This suggests that many MPAs exist only on paper, without action. The new strategy of MedPAN is to work not only with the MPA managers, but also with national systems of MPAs & with sub-region, as well as working outside of the Mediterranean in global networks.

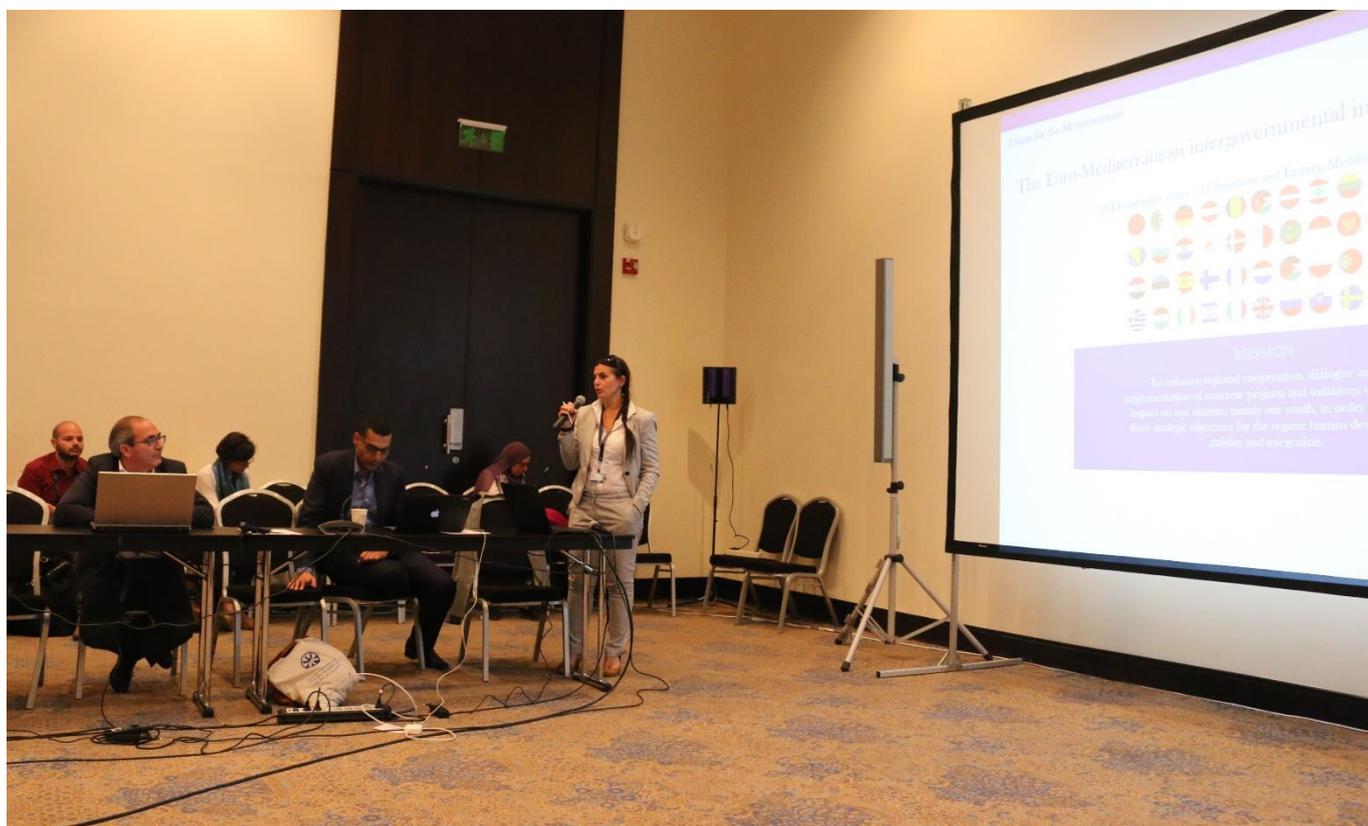
<http://medpan.org>

Nature Conservation Egypt (NCE)

NCE is an Egyptian NGO working towards conserving Egypt's natural heritage and the promotion of its sustainable use, for the benefit of present and future generations. Established in 2005 by a number of Egypt's leading experts in the field of nature and biodiversity conservation, NCE is specialised scientific research, advocacy, education and outreach to support species, their habitats, and local communities. NCE works in partnership with local experts and governmental bodies, as well as international organizations and partnerships to ensure efficient collaboration for conservation within and across borders. NCE is the Birdlife International partner in Egypt, is a member of the International Union for the Conservation of Nature (IUCN), and full partner to MedPAN. <http://www.natureegypt.org>

UN Environment/MAP Specially Protected Areas Regional Activity Centre (SPA/RAC)

The SPA/RAC was established by the Contracting Parties to the Barcelona Convention and its Protocols in order to assist Mediterranean countries in implementing the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean. Contracting Parties agreed on the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP). SPA/RAC has initiated a process aiming at the establishment of SPAMIs embracing the open seas, including deep seas, in the Mediterranean, providing scientific ecological information compilation, spatial mapping, legal analyses and stakeholder coordination and negotiation. The Barcelona Convention and its Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD) provide a suitable legal and institutional framework for the development of MPAs in ABNJs, through the creation of SPAMIs. UNEP/MAP-SPA/RAC, the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), the General Fisheries Commission for the Mediterranean (GFCM) and IUCN-Med with the contribution of MedPAN, have joined forces to set up a Joint Cooperation Strategy on spatial-based protection and management measures for marine biodiversity. <http://www.rac-spa.org>



KEY QUOTES

≈ “Following a business-as-usual scenario of managing ecosystems in the Mediterranean – focusing on single species, short term time periods, managing commodities – will mean that the ecosystems deteriorate beyond repair.”

≈ “To date, there are still many emerging gaps in defining the potential impact of pollution and plastic litter on Mediterranean biodiversity, such as the identification of bioindicators, the potential transfer of contaminants to marine species, the identification of hotspot areas, the potential impact on marine protected areas, the impact on fisheries, and the impact on human health.”

≈ “Climate change and pollution are considered among the main threats to MPAs, alongside habitat destruction, unsustainable fisheries and invasive species. The magnitude of the threat is very high and many areas are in a devastating situation. The different human activities and climate change have an important impact on the MPAs.”

≈ “Impacts need to be assessed at an eco-regional scale, because even if the types of drivers and pressures may be similar throughout the whole Mediterranean, the nature of the eco-regions and the sensitivity in terms of biodiversity present are very different. This calls for decisions based on the nature of the ecosystem.”

≈ “The added value of the application of MPA Marine Litter Action Plans in protected areas has been the empowerment of MPA managers, as well as the cross-border coordination across MPAs.”

≈ “The role that civil society plays is not always highly considered, although civil society organizations have proven to be very effective at the local level.”

≈ “There is enough existing knowledge that should be used and transformed into national and local policies towards better practices. Therefore, messages have to be articulated in adequate packages of information, in a language that the counterparts understand, such as on the economic relevance of biodiversity to society at large.”

≈ “MPAs alone may not be a sufficient tool to address transboundary and cumulative impacts in the Mediterranean, it is essential to look at the bigger picture of ecosystem based management and incorporate it in future work.”

≈ “NCE’s interest to work on MPAs has three reasons. First, to increase public awareness: MPAs can be useful ‘geographic focal points’ to inform and engage the public on the problem of marine litter and the impacts on ecosystems and biodiversity. Second, to improve management: MPAs provide a dedicated platform for environmental protection, and any best practices developed for litter management can be of further use and application. Third, to improve compliance: MPAs can act as unifying forces and catalysts for change bringing together a wide array of stakeholders.”

≈ “In cases where no specific laws for MPAs are in place, it is important to have a vision, goals and objectives on how to reduce the pressures, and enable local communities to be part of the solutions. Empowering local communities through participatory approaches & methodologies (e.g. Open Standards for the Practice of Conservation) under a co-management framework built on trust and a common language has been key in that process.”

≈ “MPAs currently exist as isolated sites that – even if they are well managed – are heavily impacted by their surroundings. This situation needs to change, so that MPAs not only stop being negatively affected by the surrounding areas, but rather have a positive impact on their surroundings.”

≈ “While the designation of an MPA is an easy task, the difficulty lies with its implementation. Often, local communities see MPAs as a restriction instead of an opportunity for local development. Hence, good management means changing this perception.”

≈ “The normative framework of BBNJ protection in the Mediterranean seems to be quite complete, but it suffers from the weak linkage among the existing institutional instruments when it comes to implementation. The major challenge for the region is thus to enhance exchange and coordination among sectoral policies in order to conduct the various maritime activities in a consistent, integrated and sustainable manner for the marine environment.”

≈ “The mandate of the UfM Secretariat is to reinforce and promote opportunities for collaboration to ensure integration, stability and sustainable development of the region. The EU funded Interreg Med Programme covers the Northern Mediterranean and Western Balkans, and it provides opportunities for involvement of the partners from the South, as well as to capitalize, share, transfer relevant outcomes and results.”

≈ “The issue of ecosystem-based management goes beyond MPAs. The tools presented can be looked at in isolation, but the real challenge is to create operational collaboration and synergies between the different tools that exist and translate this into a series of actions that all stakeholders can contribute and converge to. The UfM provides platforms to bring together different stakeholders to exchange knowledge and skills on the different types of existing tools.”

≈ “The EU Interreg Med project “PHAROS4MPAS” is a concrete example for effective private sector engagement. Working with cruise ships and port authorities in Corsica and Southern France, the project, led by WWF France and with participation of MedPAN among others, has introduced “green” practices and standards on cruise ships when operating between MPAs.”

≈ “Past approaches towards the private sector, often driven by ideological stances, have not worked effectively, and the private sector has hardly engaged in biodiversity conservation. Under an ecosystem based management approach, more efficient engagement of the private sector by involving as many partners as possible is a prerequisite.”

≈ “Considering the economic aspects of ecosystems and biodiversity is crucial in order to achieve a sustainable economic development; ecosystem services are directly linked with economic activities and cannot be addressed separately, in order to avoid severe impacts on the environment and hence on human well-being (as discussed for example in the recent IPCC Special Report on 1.5°C). This could be highlighted within the recommendations accompanying the process of preparation of a possible UfM Ministerial Declaration on Environment and Climate Change In 2020.”

RESOURCES

UfM Ministerial Declaration on Environment and Climate Change of 2014:

https://ufmsecretariat.org/wp-content/uploads/2014/05/20140515_UfM_declaration_FINAL_compromisededitorial-changes.pdf

The Interreg Med Biodiversity Protection Community:

<http://www.etc.uma.es/panacea/>

Med-IAMER – Integrated Actions to Mitigate Environmental Risks in the Mediterranean Sea (a project that developed regional indicators on the major drivers, pressures, and some impacts affecting the Mediterranean Sea):

<http://www.medmaritimeprojects.eu/section/med-iamer>

PlasticBustersMPAs:

<https://ufmsecretariat.org/project/plastic-busters-for-a-mediterranean-free-from-litter/>

Bioindicator Selection in the Strategies for Monitoring Marine Litter in the Mediterranean Sea:

https://ufmsecretariat.org/wp-content/uploads/2018/01/Bioindicator-Selection-in-the-Strategies-for-Monitoring-Marine-Litter-in-the-Mediterranean-SEA_UfM-Report-November-2017_print.pdf

AMAre Geoportal:

<http://gismarblack.bo.ismar.cnr.it:8080/mokaApp/apps/AMAV1H5/index.html?null>

The 2016 Status of Marine Protected Areas in the Mediterranean:

http://d2ouvy59p0dg6k.cloudfront.net/downloads/medpan_forum_mpa_2016_brochure_a4_en_web_1.pdf

Mediterranean Platforms on Biodiversity:

<http://data.medchm.net/>

and

<https://biodiversity.uma.es>

Regional Plan for Marine Litter Management in the Mediterranean:

<https://www.cbd.int/doc/meetings/mar/mcbem-2014-03/other/mcbem-2014-03-120-en.pdf>

EU Marine Strategy Framework Directive:

http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm

Protocol on Integrated Coastal Zone Management in the Mediterranean:

<http://ec.europa.eu/environment/iczm/barcelona.htm>

UN Environment / Mediterranean Action Plan (MAP):

<http://web.unep.org/unepmap/>

Priority Actions Programme / Regional Activity Centre (PAP/RAC):

<http://www.paprac.org/>