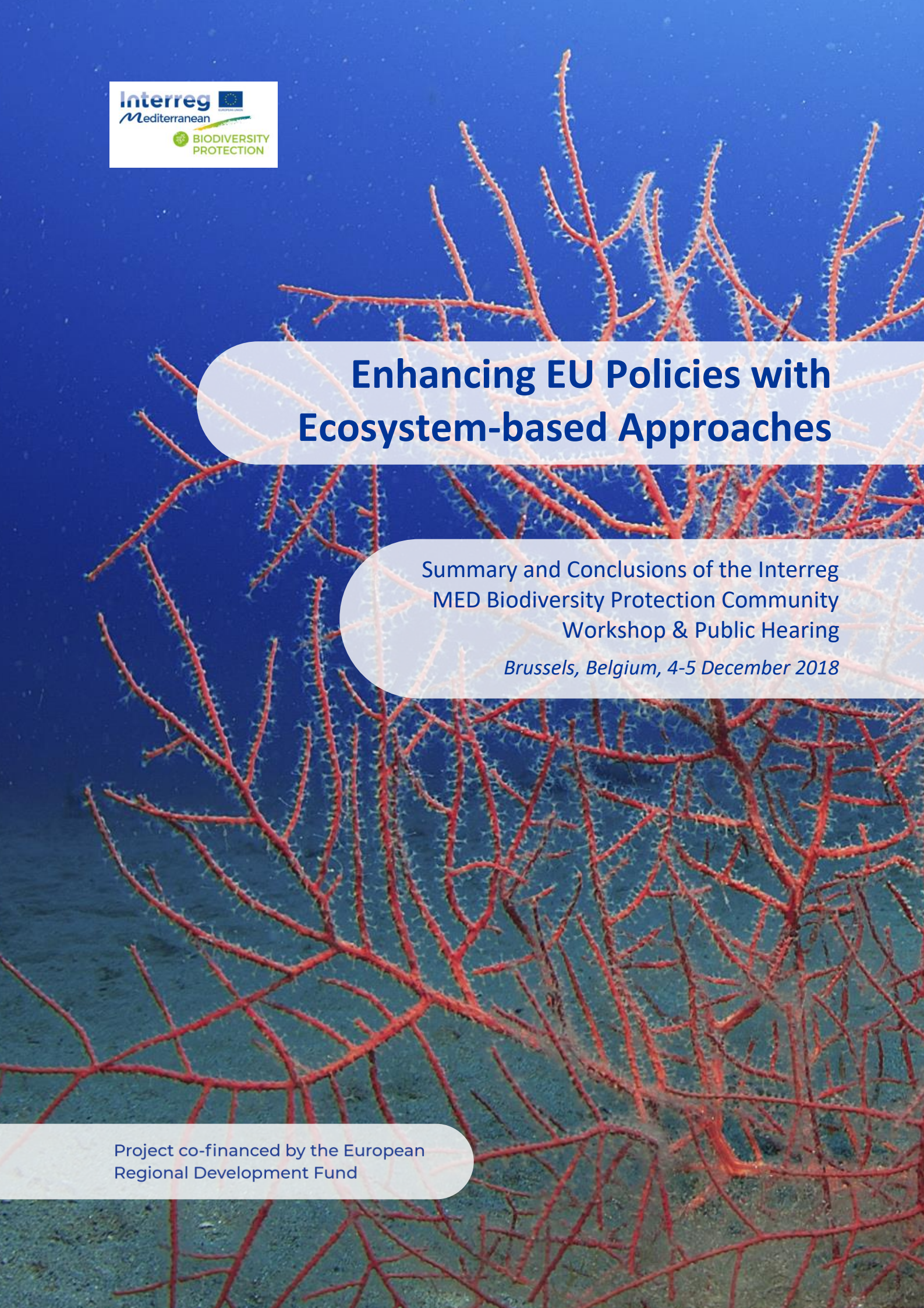

Enhancing EU Policies with Ecosystem-based Approaches

Summary and Conclusions of the Interreg MED Biodiversity Protection Community Workshop & Public Hearing

Brussels, Belgium, 4-5 December 2018

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LIST OF ABBREVIATIONS FREQUENTLY USED IN THIS REPORT

CBD: United Nations Convention for Biological Diversity

CIA: Cumulative Impact Assessment

CEA: Cumulative Environmental Assessment

CPs: Contracting Parties

EBM: Ecosystem-based Management

EBSA: Ecologically and Biologically Significant Marine Areas

EcAp: Ecosystem Approach

EIA: Environmental Impact Assessment

GES: Good Environmental Status

ICZM: Integrated Coastal Zone Management

IMAP: Integrated Monitoring and Assessment Programme

IUCN: International Union for Conservation of Nature

MPA: Marine Protected Area

MSP: Marine Spatial Planning

PA: Protected Area

SDG: Sustainable Development Goals

SPAMI: Specially Protected Areas of Mediterranean Importance

Executive Summary

The current state of the unique and endemic Mediterranean biodiversity is dire. Our current use of natural resources is not sustainable. We rely on healthy ecosystems for basic services such as clean water, clean air and food provision, amongst many others. Excessive/unsustainable human uses of biodiversity and habitats are impacting Mediterranean ecosystems at unprecedented rates that are reducing their capacity to provide us with such services. We need to preserve the functionality of ecosystems to preserve our livelihoods. We advocate for a healthy Ocean because we need it.

Scientific data are allowing us to look at current pressures on the environment in the Mediterranean from multiple economic sectors individually, showing that their impacts on biodiversity change from location to location. However, when we add these pressures together, scientific data also show that the level of pressure is radically different and more acute at a different scale. Sensitive areas with unique habitats are more impacted by these pressures. The most sensitive habitats are not necessarily limited within the boundaries of protected areas (PAs), such as Natura2000 sites or nationally designated areas. Pressure from multiple sectors yield cumulative impacts that undermine sensitive ecosystems *within* and *beyond* national borders and PA jurisdiction.

The INTERREG Med Biodiversity Community is developing mechanisms to enhance the socio-ecological resilience of Mediterranean ecosystems and local communities that depend on them by assessing and managing impacts within and beyond PAs and administrative boundaries. The findings and conclusions that are emerging from two years of Projects undertaken by the Community are slowly weaving a repository of knowledge and solutions, forming a "toolbox" that provides:

- Technical tools and guidance to support progress towards enforced Protected Areas that are individually well managed, while working together as a smart, coherent network across the Mediterranean that takes into consideration ecological sensitivity.
- Policy and governance recommendations to support progress towards working beyond PAs. These recommendations call for regional governance that enhances the coherence and connectivity of PAs; enables a true social and environmental sustainable development; and uses the ecosystem-based approach to address both transboundary impacts of the emerging blue economy and land-sea interactions, achieving effective biodiversity protection, and a good environmental status for the Mediterranean Sea.

This knowledge capital was shared during the Workshop "Enhancing EU Policies with Ecosystem-based Approaches" and Public Hearing "Mediterranean Ecosystems in Danger: Enhancing EU Policy Response" (Brussels, 4-5 Dec 2018), resulting in the following key messages and recommendations:

Engaging local communities in the management of protected areas through co-management schemes is key to preserving Mediterranean natural resources.

Local communities have local (ecological) knowledge that can potentially complement scientific data and enrich approaches towards the sustainable use of natural resources. In addition, experience has shown that the perceived challenges or threats associated with the ownership of natural resources and the social and economic drivers that shape actions to manage such resources vary greatly from one community to the other. Co-management schemes can provide a way to identify drivers, bring traditional and scientific knowledge together to direct better decision-making and reach consensus on effective actions.

In the context of PAs, given the lack of authority of PA managers to enforce either EU, national or local legislation, co-management schemes can also pave the way to more effective, collaborative action frameworks. Such schemes might also prove useful to address conflicts between owners of natural resources ("right-holders") and users/beneficiaries ("stakeholders"), providing a new, deliberative arena for inclusive discussion and negotiation. Nonetheless, co-management requires that all actors share a minimum level of understanding regarding the issues at stake and mutual trust. Awareness raising and community building are therefore pre-requisites to the success of co-management schemes. Community building, on the other hand, requires making an effort to adapt scientific and technical language to make messages relevant and understandable to local stakeholders. Co-management is not only about shared governance; it is also about building capacity to take joint action.

Read here about innovative tools and methodologies to advance the co-management of natural resources.

Preserving ecosystem integrity and functions requires conservation of priority sites, ecosystem restoration where and when needed, and a better understanding and appreciation of ecosystem services by society.

Maintaining ecosystem integrity and functions requires taking action to restore damaged ecosystems and to preserve priority sites, enhancing the resilience of the Mediterranean coast. PAs play a key role in providing high-level conservation of priority sites, contributing to manage the local impacts of global environmental challenges and restoring damaged ecosystems. Nevertheless, additional action is required to maintain ecosystem integrity, while enabling the sustainable use of natural resources. Ecosystem-based approaches to manage biodiversity are required to increase the resilience of Mediterranean ecoregions facing multiple environmental threats. Additionally, a greater understanding of society regarding the functionality and services delivered by ecosystems is needed to win support for appropriate management measures.

Managers of existing and new PAs need to be supported and empowered to rise to the challenges brought by the emerging blue economy.

The emerging, so-called blue economy is increasing the need for space for economic activities at sea, which will require greater conservation efforts to maintain the ecological balance and new, larger PAs that are well connected and effectively managed.

As PAs grow, so will their interaction with new economic activities. PA managers do not know how to address these emerging pressures. There is a need to build capacity to undertake vulnerability assessments, to involve and build the capacity of the sectors in understanding EBM as an approach to be used by all sectors (rather than a % of area covered by PAs that would ensure healthy ecosystems) and to enable adaptive planning and management of PAs.

Effective PA management further requires harmonizing and standardizing data at the local scale.

Local data is fundamental to adequately undertake Maritime Spatial Planning (MSP), as it is required to better (re) organise human activity. There is a risk that we might be relying too heavily on expert opinion and large-scale assessments, as effective ecosystem-based management requires local data to feed large-scale assessment. The availability of long-term data is also very scarce and is driven almost merely by scientific curiosity. PAs are not really engaged in gathering long-term monitoring data, which adds to the difficulty of understanding our systems, because of existing gaps in information.

Read here about tools that are being tested to support MPA managers to gauge stakeholders' perception of ecosystem services; undertake vulnerability assessments and adaptive planning; engage with other MPAs and maritime sectors and share local data for MSP processes.

Understanding land-sea interactions is key to improving knowledge of transboundary pressures, pollution, including marine litter threats.

Everything that happens at sea starts on land. For example, scientific research has shown that over 80% of marine litter comes from land, where it reaches freshwater ecosystems and enters the sea. There is increasing evidence that marine pollution is affecting marine species and habitats. PAs provide an observatory system to continue learning about these effects and to test potential mitigation solutions. Additionally, land-sea interactions must be better understood and addressed. Advancing Integrated Coastal Zone Management (IZCM) can help to guide an effective response.

Read here about existing tools and methodologies that can help address the effects of marine litter on biodiversity and monitor water quality in the Mediterranean.

Addressing regional pressures to reduce impacts on Mediterranean ecosystems requires transboundary governance approaches that link regions together.

Any type of pollution and climate change effects are transboundary, which is why action to prevent, mitigate and manage them is required across the Mediterranean, not just in PAs within national jurisdiction. Most initiatives geared at addressing pollution issues come from Northern Mediterranean countries. The transboundary nature of pollution and CC imply that such initiatives might prove ineffective without action in the entire basin. Integrating all actors across the Mediterranean, including Southern Mediterranean countries, is key to addressing a problem of this magnitude that enables the development and implementation of solutions that enable increasing the socio-ecological resilience of ecosystems and local livelihoods through NBS (nature-based solutions).

Full implementation of existing environmental policies and effective collaboration that enable mechanisms that ensure balanced/more sustainable activities is necessary to guarantee sustainable, blue growth. EU Member States and Mediterranean countries must take joint action.

Full implementation of existing environmental policies is the pre-condition for a sound maritime spatial planning that ensures sustainable, blue growth. National and regional authorities have full responsibility for such implementation, whether it is EU Member States or contracting parties to the UN Environment MAP Barcelona Convention. Initiatives such as BlueMed, WestMed or PANORAMED, which provide coordination platforms amongst authorities, are key and will be targeted as recipients of the results and findings of projects by the Interreg MED Biodiversity Protection Community. National authorities should both contribute to financing basic research on biodiversity and influence upcoming financing frameworks such as Horizon Europe to include support to innovative biodiversity protection solutions to ensure progress towards a truly sustainable blue economy.

Mediterranean EBSAs and SPAMI's should be capitalised, as they have been identified as priority areas for protection and effective EBM management through a scientific and consultative process that has received political consensus from the contracting parties of the Barcelona Convention.

Given the high degree of diversity and endemism of species and habitats in the Mediterranean, applying the ecosystem-based approach requires recognition of ecoregions in the Mediterranean as the appropriate units and scales for planning and management. Social resilience within these

ecoregions should also be assessed, as it is of critical importance in order to tailor management actions to the vulnerabilities, needs and capacities of local communities and national governance frameworks. Mediterranean EBSAs and SPAMI's have received political consensus at the Barcelona Convention and should be capitalised. The concept of ecoregion could be operationalised through sub-regional cooperation mechanisms and programmes linked to tailored action plans by ecoregion.

Biodiversity protection should be "mainstreamed" at the highest level in regional governance initiatives, not just environmental initiatives, putting conservation and protection objectives at the same levels as economic and social objectives. In addition to governments, the private sector, not only those working on biodiversity protection, should be engaged.

An efficient ecosystem-based method for managing natural resources must rely on managing all the human activities that exploit these resources. Therefore, biodiversity protection should be addressed at the highest level in all regional governance initiatives, not just "environmental" initiatives, putting the conservation of natural resources and ecologically important units at the same level as the economic and social objectives and engaging the private sector. Ecosystem-based management should be an integral component of the regional sustainable development policies, strategies, plans, projects and activities. Best practices exist globally (Millenium Ecosystem Assessment) and in Europe (the EU Mapping and Assessment of Ecosystems and their Services (MAES) Working Group) that enable the provision of critical evaluation of the best available information for guiding decisions on complex public issues.

The Interreg MED Biodiversity Protection Community has produced and agreed on a vision for understanding and managing transboundary and cumulative impacts in Mediterranean ecosystems. Launched in the EU Parliament, this statement is a common path of action by nearly 200 Mediterranean and European institutions that will be further discussed and embraced as a Declaration for joint action by the end of 2019.

About this report

The Workshop "Enhancing EU Policies with Ecosystem-based Approaches" and the Public Hearing "Mediterranean Ecosystems in Danger: Enhancing EU Policy Response" were held in Brussels (Belgium) on December 4th and 5th, 2018 in the framework of project "PANACeA: Streamlining Management Efforts in Protected Areas for an Enhanced Nature Conservation in the Mediterranean Sea" ("PANACeA").

The Workshop & Public Hearing gathered representatives and key players of the Interreg MED Biodiversity Protection Community featured by PANACeA. The Community comprises around 150 institutions that represent local and regional practitioners, policymakers, environmental lobbyists, and researchers working in the Mediterranean.

The findings of two years of project work by the Interreg MED Biodiversity Protection Community points at solutions found at the protected area (PA) level in various countries to address environmental challenges and the links between biodiversity loss and economic activities, proving the need for an ecosystem-based approach to achieve effective biodiversity protection and a good environmental status for the Mediterranean. The Workshop & Public Hearing were set up as an opportunity to transfer the lessons learnt by the Community to a wider audience, in particular EU, Mediterranean and

national policy makers, public authorities at various levels, environmental organisations and territorial cooperation institutions, fostering a dialogue geared at up-scaling potential policy and societal solutions to preserve biodiversity in the Mediterranean.

The Brussels Workshop & Public Hearing built on the results and conclusions of the 1st & 2nd Open Seminars and Community Building events organised by the Community in Barcelona (October 24th – 25th, 2017) and Podgorica (May 16th – 17th, 2018), which focused on linking the needs of regional biodiversity conservation practitioners to those of researchers to facilitate evidence-based policy making; and on sharing tools for ecosystem-based management, respectively.

The key messages and conclusions stemming from the Workshop & Public Hearing are the subject of this Report.

Objectives and structure of the Workshop

The Workshop "Enhancing EU Policies with Ecosystem-based Approaches" was designed to capitalise on the preliminary findings and results of biodiversity protection projects undertaken by the Interreg Med Biodiversity Protection Community, as well as to initiate a policy dialogue geared at up-scaling potential policy and societal solutions.

The Workshop was structured as follows:

Three morning sessions were devised to focus on showcasing and debating the transferable, evidence-based tools, approaches and mechanisms developed by the Interreg Med Biodiversity Protection Community through past and on-going Projects that can contribute to ensure a more effective protection of biodiversity and a more sustainable management of natural resources in the Mediterranean. Discussions were held around the following key topics:

Session 1: How to better preserve Mediterranean natural resources: the role of local communities in protection and management.

Session 2: How to ensure transferable approaches for holistic biodiversity protection: from protected key biodiversity (PAs) to safeguard ecosystem functions (ecoregions).

Session 3: How to address regional pressures to reduce impacts on Mediterranean ecosystems: gathering knowledge on pollution including marine litter threats.

The afternoon session sought to facilitate the transfer of key findings by the Interreg MED Biodiversity Protection Community as potential policy and societal solutions. Three roundtables were organised to structure thematic-oriented discussions aimed at highlighting the necessary role to be played by different sectors in achieving a good environmental status in Mediterranean ecoregions.

Panel discussions were held around the following key topics:

- The role that governments and public authorities can play in targeting a more sustainable use of natural resources towards a blue economy that preserves ecosystems and protects biodiversity.
- Responding to pressures from a nature protection perspective in a scenario of scarce natural resources and uncontrolled environmental threats.
- The need for a Mediterranean, ecosystem-based territorial integration that acknowledges the uniqueness of Mediterranean ecosystems and brings together all relevant actors from the region.

The full and detailed Agenda of the Workshop, including access to presentations delivered during the event, is available here.

Policy recommendation and key messages stemming from the Workshop

The contributions and discussions held across the different sessions of the Workshop are summarised below, highlighting and integrating key messages, conclusions and policy recommendations stemming from these discussions throughout the different sessions. Additionally, given the valuable information contained in the contributions made throughout the Workshop, a brief summary of these contributions has also been included as Annex to this document, for further reference.

Engaging local communities in the management of protected areas through co-management schemes is key to preserving Mediterranean natural resources.

Local communities have local (ecological) knowledge that can potentially complement scientific data. In addition, experience has shown that the perceived challenges or threats associated with the ownership of natural resources and the social and economic drivers that shape the actions that manage said resources vary greatly from one community to another. Co-management schemes can provide a way to identify drivers, bring traditional and scientific knowledge together to direct better decision-making and reach consensus on effective actions.

> *Scientific evidence resulting from Project ConFish suggests that fish populations are locally adapted and display different behaviours across different areas. The Project has shown that consulting with local communities can significantly improve the understanding of fisheries dynamics, and can help us to understand the motivations that might trigger actions towards a more sustainable use of fisheries, leading to an improved capacity to address fisheries management.*

In Protected Areas, co-management schemes lead to more effective, collaborative action frameworks.

In the context of PAs, given the lack of authority of MPA managers to enforce either EU, national or local legislation, co-management schemes can also pave the way to more effective, collaborative action frameworks. Such schemes might also prove useful to address conflicts between owners of natural resources ("right-holders") and users/beneficiaries ("stakeholders"), providing a new, deliberative arena for inclusive discussion and negotiation. Nonetheless, co-management requires that all actors share a minimum level of understanding regarding the issues at stake and mutual trust. Awareness raising and community building are therefore pre-requisites of success of co-management. Community building, on the other hand, requires making an effort to adapt scientific and technical language to make messages relevant/understandable to local stakeholders. Co-management is not only about shared governance, but also about building capacity for joint action.

> *Governance schemes such as those tested by Project FishMPABlue2 provide tools and methodologies (such as its "Governance Toolkit") to guide co-management models in MPAs. Strategies tested by Project WETNET provide guiding tools and methodologies to support stakeholder consultation and participatory processes (such as the "Wetlands Contract").*

Preserving ecosystem integrity and functions requires ecosystem restoration, conservation of priority sites and a better understanding and appreciation of ecosystem services by society.

Maintaining ecosystem integrity and functions requires taking action to restore damaged ecosystems and enhance the resilience of the Mediterranean coast. Ensuring a high level of conservation of priority sites is also important, as is enabling the sustainable use of natural resources, which requires a greater

understanding by society of the functionality and services delivered by ecosystems, in order to win support for appropriate management measures.

> *Project POSBEMED provides practical examples of methodologies that can be used to assess the social perception of services provided by ecosystems*

Managers of existing and new PAs need to be supported and empowered to rise to the challenges brought by the emerging blue economy.

The emerging, so-called blue economy is increasing the need for space for economic activities at sea, which will require greater conservation efforts to maintain the ecological balance and new, larger PAs. As PAs grow, so will their interaction with new economic activities. PA managers do not know how to address the emerging pressures. There is a need to build capacity to undertake vulnerability assessments and to enable adaptive planning and management of PAs.

> *Projects such as MPA Adapt and ACT4LITTER provide tools to build such capacity. The uptake of these tools at a wider Mediterranean level could help to address this need, but additional resources are needed to support this process.*

Protected Area managers often do not know how to engage with stakeholders that could provide easy solutions to identified problems (i.e. creating a buffer zone to prevent large ships from navigating in the PA). Additional support is required in this respect, connecting MPA managers to relevant MSP actors.

> *Project PHAROS4MPAS' integrated framework of recommendations on practical collaboration between Mediterranean MPAs and key, relevant maritime sectors can help to address this emerging need, transferring such practices to other MPAs across the Mediterranean and feeding relevant policy frameworks.*

Effective PA management requires harmonising and standardising local data.

Local data is fundamental to feed Maritime Spatial Planning, as it is required to better (re) organise human activity. There is a risk that we might be relying too heavily on expert opinion and large-scale assessments, as effective ecosystem-based management requires local data to feed large-scale assessments. The availability of long-term data is also very scarce and is driven almost solely by scientific curiosity. PAs are not really engaged in gathering long-term monitoring data, which adds to the difficulty of understanding our systems, because of existing gaps in information.

> *Project AMAre has delivered a spatial geo-portal where local data is stored, managed and both shared within each MPA and amongst other MPAs.*

Scientific research shows that marine pollution is already affecting marine species and habitats. PAs are a valuable asset to gather reference data, but action to address the issue is required in the entire basin, not just MPAs.

Pollution is transboundary. It originates on land, from where it reaches freshwater ecosystems and enters the sea. There is increasing evidence that marine pollution is affecting marine species and habitats. PAs provide an observatory system to continue learning about these effects and to test potential mitigation solutions. However, action to prevent, mitigate and manage marine litter is required across the Mediterranean, not just in MPAs.

> *Project MEDSEALITTER has gathered extensive data on the presence and distribution of marine litter in PAs in the Mediterranean, confirming overlap with the presence of cetaceans and providing evidence of ingestion. The standardised protocols developed and tested through the project to monitor marine litter and its impact on biodiversity can help MPA managers to*

improve their understanding of the issue locally and contribute to build collective knowledge on the transboundary effects of marine litter.

Project ACT4LITTER has identified 105 measures that MPAs can adopt to prevent, mitigate and manage marine litter, coupled with a "Decision Making Tool" to assess the feasibility of the measures at a local level and to design an Action Plan.

Additionally, Project PLASTIC BUSTERS MPAs will provide a common framework to tackle the issue of marine litter at local, national and regional levels through a joint Governance Plan.

The use of technology to support real-time monitoring of local and transboundary pollution can provide benefits in terms of early warning systems to take action before effects escalate.

Project EcoSustain has successfully tested real-time tools to monitor water pollution. These tested tools could be applied to other indicators, beyond water quality.

Understanding land-sea interactions is key to improve knowledge of transboundary pollution, including marine litter threats.

Everything that happens at sea starts on land. For example, scientific research has shown that over 80% of marine litter comes from land. Land-sea interactions must be better understood and addressed. Advancing Integrated Coastal Zone Management (ICZM) can help to guide an effective response.

Full implementation of existing environmental policies in the EU is a pre-condition to finance basic research for biodiversity protection and innovative solutions to guide the blue economy.

Full implementation of existing environmental policies (Birds and Habitats Directives, Water Framework Directive, Marine Strategy Framework Directive) is a pre-condition for blue growth, as these policies are the basis to maintain a Good Environmental Status (GES) of our seas.

The Mediterranean is not sufficiently covered as yet from a Natura2000 perspective, so political support is required to bring forward action and apply a precautionary approach to maritime activities until the point is reached. Maritime Spatial Planning can play an effective role as a tool that facilitates a sustainable, blue growth. EU Member States have full responsibility for implementing these Directives and developing MSP plans, and can therefore benefit from the experience, findings and tools resulting from projects undertaken by the Interreg Biodiversity Protection Community. Tapping into coordination platforms such as PANORAMED is an effective way to transfer lessons learnt to public authorities at both the national and regional level.

National authorities should also be targeted to ensure that they contribute to financing basic research on biodiversity and that they influence upcoming financing frameworks such as Horizon Europe, to include support to innovative biodiversity protection solutions to ensure progress towards a truly sustainable blue economy. The European Commission only manages 10-15% of funds for marine research in Europe, while 85%-90% is managed by National Authorities, even if they come from the EU.

Addressing regional pressures to reduce impacts on Mediterranean ecosystems requires transboundary governance approaches that link regions together. EU Member States and Mediterranean countries must take joint action to preserve biodiversity, ensure environmental and social resilience to climate change, mitigate pollution and sustain the livelihoods of Mediterranean communities.

Pollution is transboundary, which is why action to prevent, mitigate and manage it is required across the Mediterranean, not just in MPAs within national jurisdiction. Most initiatives geared at addressing pollution issues come from Northern Mediterranean countries. The transboundary nature of pollution implies that such initiatives might prove ineffective without action in the entire basin. Integrating all

actors across the Mediterranean, including Southern Mediterranean countries, is key to addressing a problem of this magnitude.

Action at a EU level must therefore be coupled with action in the whole Mediterranean basin. Initiatives such as the Union for the Mediterranean, BlueMed or WestMed are key to facilitating cooperation between Northern and Southern Mediterranean countries, advancing joint governance. Such governance should be broadened to include the private sector, and not only those stakeholders working on biodiversity protection.

The United Nations Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) has been an agora for 40 years for Mediterranean countries to come together to discuss issues and solutions to coastal and marine conservation. Its Mediterranean Action Plan (MAP), with the ecosystem approach as its guiding principle, and the Integrated Coastal Zone Management (ICZM) instrument provide a framework of existing strategies and instruments that should be capitalised and implemented to support joint action.

Applying the ecosystem-based approach in the Mediterranean requires recognising ecoregions in the Mediterranean as the appropriate units and scales for planning and management. EBSAs and SPAMIs should be capitalised, as they have received political consensus at the Barcelona Convention.

Given the high degree of diversity and endemism of species and habitats in the Mediterranean, applying the ecosystem-based approach requires recognising ecoregions in the Mediterranean as the appropriate units and scales for planning and management. Social resilience within these ecoregions should also be assessed, as it is of critical importance in order to tailor management actions to the vulnerabilities, needs and capacities of local communities and national governance frameworks.

Ecoregions in the Mediterranean may be too large to completely manage, therefore priority areas that are smaller and have garnered both political and technical consensus offer an opportunity to be used. EBSAs and SPAMI's should be capitalised on as they have been identified as priority areas for protection and management through a scientific and consultative process that has received political consensus from the contracting parties of the UNEP MAP Barcelona Convention. These areas (EBSA's and SPAMI's) represent the 7 ecoregions well and include pelagic, transboundary habitats.

Supporting Mediterranean ecosystem-based management requires action on different fronts, from sharing data and assessments, to the design of shared policy objectives and programmes, implementation, capacity building and cooperation.

Advancing Mediterranean ecosystem-based territorial integration requires actions on different fronts, including:

Filling data gaps and developing regional assessments:

- Fill critical data gaps including on sub-regional specifics.
- Run consistent region-wide assessments (assessing inter-linkages: pressures/impact/state, including cumulative impacts).
- Establish joint monitoring programmes.
- Provide and maintain online regional platforms and databases to share data on marine biodiversity and interaction with human activities.
- Follow the UN SDG framework as a framework for evaluating operational management.

Designing policy objectives and programmes:

- Set agreed thresholds for biodiversity protection.

- Tailor management actions to the vulnerabilities, needs and capacities of local communities.
- Minimise social cost by using decision-support tools and reserve-design optimisation tools.

Implementation:

- Streamline the Ecosystem Approach (EcAp) in policies, action plans, projects, and activities, beyond environmental initiatives.
- Establish a comprehensive coherent network of well-managed Marine Protected Areas and other Effective Area-Based Conservation Measures, including the deep sea, protecting at least 10% of each ecoregion, but preferably 30%.
- Ensure that management around PAs is effective.

Capacity building:

- Support and strengthen national Initial Integrated Assessments of the Mediterranean Sea and Coastal Areas (IMAP), in particular in high pressure, high sensitive areas
- Support and provide national and sub-regional training/meetings to build capacity and share experiences on biodiversity monitoring, management plan/strategies.

Cooperation:

- Encourage and enhance synergies, transboundary cooperation, best practices and experience exchange amongst Northern and Southern Mediterranean countries.
- Continue to strengthen partnerships with key regional and global actors.

Biodiversity protection should be "mainstreamed" at the highest level in regional governance initiatives, not just environmental initiatives, putting conservation and protection objectives at the same level as economic and social objectives.

An efficient ecosystem-based management system of natural resources must be based on managing all human activities that exploit these resources. Therefore, biodiversity protection should be addressed at the highest level in all regional governance initiatives, not just "environmental initiatives", putting conservation of natural resources and ecologically important units at the same level as the economic and social objectives and engaging the private sector. Ecosystem-based management should be an integral component of the regional sustainable development policies, strategies, plans, projects and activities.

Objectives, results and key messages stemming from the Public Hearing

Objectives and structure of the Public Hearing

The dialogue opened during the Workshop on December 4th, 2018 was then taken to the European Parliament on December 5th, 2018, where the Public Hearing "Mediterranean Ecosystems in Danger: Enhancing EU policy response" was held in collaboration with the Intergroup Seas, Rivers, Islands and

Coastal Areas to bring the key questions identified by the Interreg MED Biodiversity Protection Community to the consideration of EU institutions in the formulation of policy proposals. Although separate from each other, both the Workshop and the Public Hearing were coordinated efforts seeking to capitalise on the efforts of the Community, delivering on its overall objective of bridging the science-policy gap to advance biodiversity protection in the Mediterranean.

The Public Hearing was structured as follows:

An opening session served to frame the hearing within the work of the Community. This session then led to a set of presentations structured around three roundtables, seeking to trigger an interactive debate amongst policy makers and members of the Community:

Roundtable 1: Towards a transboundary and ecoregional approach for sound biodiversity management and protection.

Roundtable 2: A long-term vision for the development of monitoring tools, harmonised methodologies, protocols and data.

Roundtable 3: Streamlining governance and cooperation to tackle Mediterranean biodiversity challenge.

The Public Hearing was then closed with an agreement on the common vision that will guide further action by the Community, as reflected in a draft Declaration.

The full and detailed Agenda of the Public Hearing is available here.

Policy recommendation and key messages stemming from the Public Hearing

The key policy recommendations and messages resulting from the Public Hearing are summarised below, integrating the main ideas and proposals contributed by participants:

> The Mediterranean Sea represents less than 1% of the Ocean, but is home to 14% of the World's species. There are more than 12000 species documented in the Mediterranean, 20% of which are endemic. This high rate of endemism is due to the past of the sea, which has led to isolation and evolution of its fauna and geomorphology, resulting in 7 ecoregions that have a very unique species diversity and abundance.

> In spite of its rich natural capital, the Mediterranean is in danger, and action is required to reverse the loss of biodiversity and to preserve the functionality of Mediterranean ecosystems. We advocate for a healthy Ocean because we need it. The unique, complex and largely endemic flora and fauna of the Mediterranean is under constant pressure exerted by humans. The impact of climate change, population growth, tourism, overfishing, maritime traffic, deep sea mining and pollution -amongst many other human pressures- is felt and endangers both the Mediterranean ecological systems and the social system that depends on it, threatening the livelihoods of Mediterranean communities.

> Policy action has been initiated at international, regional, national and local levels to protect biodiversity, but the results of these actions are still poor and do not show significant progress towards the policy objectives defined. Short-term interests are prevailing over our shared, long-term common interest of reaching a Good Environmental Status for the Mediterranean and increasing its environmental, social and economic resilience. We need to be pragmatic and develop action plans. We do not need more legislation, but action.

- The ecosystem-based approach provides a vision towards starting managing ecosystems. Using this vision, we have to start working with 20-year timelines and use available tools, such as Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP), to integrate GES as an intrinsic objective of economic and social activities. By 2021, all EU Member States will be required to have MSP plans covering coastal and territorial (internal) waters. These plans should endeavour to also consider land-sea-interactions, in application of ICZM and its Mediterranean protocol. The EU MSP Platform and the projects undertaken by the Interreg MED Biodiversity Protection Community provide a rich variety of protocols, methodologies and data to guide and support this process.

- The urgent question now, however, is not only what tools to use, but also where to concentrate our efforts to achieve satisfactory results in the Mediterranean. The United Nations (UN) Convention on Biological Diversity (CBD) has approved 15 Ecologically and Biologically Significant Areas (EBSAs), which were chosen based on eco criteria and approved through a political process that leads to consensus. These EBSAs are the "cylinders of the Mediterranean engine". Without them, we collapse. They offer both transboundary units and collaboration platforms that could be used to trigger action. Managing 10-30% of EBSAs (covering coastal and pelagic species and the services provided by these habitats) would be a pragmatic way of achieving sound results. EBSAs provide a clear target towards the prioritisation of investment and funds. Action is required to call for EU Member States and non-EU Mediterranean countries to work together in these areas. As each ecoregion will have its own priorities and sequence of intervention, all relevant stakeholders, including the private sector, must come together within each of them to organise action.

- Such complex intervention requires leadership and facilitation, which existing structures like the Barcelona Convention could offer. But it also requires mixed strategies, with bottom-up approaches that allow civil society to be part of decision-making processes. Co-management is the cornerstone of effective action.

- Current efforts in support of the development of a coherent network of Protected Areas in the Mediterranean should be sustained, capitalising on existing initiatives such as the network of MPA managers in the Mediterranean (MedPAN). PAs are not only regulatory boundaries, but also social areas of negotiation and consensus. PAs need to be expanded as a step forward towards working within ecoregions, and PA management should fit into actions of wider management schemes in coastal and marine areas.

- Data gaps must also be addressed. The Integrated Monitoring and Assessment Programme and related Assessment Criteria (IMAP) is an opportunity to enable for the first time a quantitative, integrated analysis of the state of the marine and coastal environment in the Mediterranean, covering pollution and marine litter, biodiversity, non-indigenous species, coast, and hydrography, based on common regional indicators, targets and Good Environmental Status descriptions. Advancing this effort will require educational tools and training programmes, especially to move towards the long-term vision of facilitating cumulative impact assessments. Existing data monitoring protocols and methodologies must be used in a participatory way, to allow all parties to advance towards the production of high-quality data that is interchangeable amongst countries.

- Northern and Southern Mediterranean countries need to work together. Cooperation is necessary and should be encouraged, mobilising financial resources to allow for the

integration and participation of the Southern Mediterranean countries as Partners within EU projects and initiatives.

The Med Biodiversity Community -reflecting on all the above- has developed and agreed on a common vision towards understanding and managing transboundary and cumulative impacts in Mediterranean ecosystems, which has been endorsed by the Intergroup Seas, Rivers, Islands and Coastal Areas (SEARICA) of the European Parliament. This vision will guide the future action of the Community and will be formalised into a joint Declaration of relevant regions of the Community to inspire effective action by the end of 2019.

Annex: Additional materials

> Presentations delivered by participants
> Photo Gallery
> List of participants (upon request)
> Press release
> Summary of contributions to the Workshop
> Brussels Declaration "Ecosystem-based approaches for Biodiversity Protection and Management"

SUMMARY OF CONTRIBUTIONS TO THE WORKSHOP

The full and detailed Agenda of the Workshop, including access to presentations delivered during the event, is available here.

Morning session // The Ecosystem based approach: A collaborative framework to link regions, users and beneficiaries

Session 1: The role of local communities in protecting and managing natural resources in the Mediterranean

Session 1 looked at the role that local communities play in protecting and managing natural resources, feeding from key findings stemming from projects developed by the Biodiversity Protection Community. The session was moderated by Giuseppe Sciacca (CPMR) and included contributions from Anamaria Stambuck (University of Zagreb), Maria del Mar Otero (IUCN-Med), Giancarlo Gusmaroli (Italian Centre for River Restoration) and Gilles Van de Walle, EU Fisheries Network (FARNET).

Project ConFish · Anamaria Stambuck (University of Zagreb)

Anamaria Stambuck (University of Zagreb) presented some key lessons learned on the topic from the development of Project ConFish, which sought to link genomic science to fishing practices in the Mediterranean. The Project focused on facilitating knowledge transfer amongst fishermen, local stakeholders, local authorities and scientists, encouraging sharing data to advance more effective, co-management schemes for fisheries.

The Project applied both social science tools (how to manage fisheries) and genomic tools, which together have led to results with significant implications for the fisheries units that need to be

managed. Arguing that fisheries stocks do not necessarily follow the boundaries set up by the General Fisheries Committee for the Mediterranean (GFCM), Ms Stambuk explained that research by Project ConFish has evidenced that fishing populations are locally adapted, which implies that engaging local communities is key for successful management. She argued that management units should be established using genomic findings and that local communities have relevant, ecological knowledge that matches and complements scientific data. The Project also evidenced that the main challenges and threats to an effective management stem from different perceptions on the ownership of natural resources, which vary from one community to the next. Therefore, studying the social and economic drivers of different local fisheries communities is key, and management capacity can be significantly improved by involving such communities. Engaging social scientists is key to facilitating interactions and developing effective co-management schemes.

Project FishMPABlue2 · Maria del Mar Otero (IUCN-Med)

Maria del Mar Otero (IUCN-Med) introduced current work being developed by Project FishMPABlue2, which looks at ways and means to involve fishermen in protected area governance, advancing co-management schemes. The project is testing different methods, approaches and incentives to engage local stakeholders and improve the sustainability of fisheries in MPAs through co-management schemes, testing an innovative governance toolkit. This toolkit provides guidelines to address and manage conflict and improve governance of fisheries, also delivering supporting measures to increase local knowledge and reduce the environmental impact of the fishing activity. The toolkit includes a Governance Model proposal with three pillars:

- Small Scale Fisheries (SSF) Management Plan.
- Engagement of fishermen.
- Enforcement of applicable laws and regulations.

The Project will also seek to produce policy recommendations, geared at bridging the gap between nature conservation and fisheries legislation (both on national and EU levels). For example, in the absence of a legal framework, changing fishing gear or reducing catches has to be done voluntarily. Sometimes law enforcement is difficult, as MPA managers do not have powers to sanction. MPAs are finding new ways of liaising with fishermen through informal channels to have more interaction, which helps to bridge the gap between EU and national laws and guidelines and implementation at the site level. To advance these efforts, however additional financial and human resources are required.

Project WETNET · Giancarlo Gusmaroli (Italian Centre for River Restoration)

Giancarlo Gusmaroli (Italian Centre for River Restoration) introduced key findings and conclusions stemming from the development of Project WETNET, which is looking at negotiating water resource management in Mediterranean wetlands. The Project is trying to bridge the gap between wetland management at the Mediterranean scale and the social reality of local communities in those territories where wetlands exist. He argued that there is a great gap between wetlands as management units and their surrounding local communities. Consequently, Project WETNET is testing experimental governance processes to engage local communities in wetland management through the “wetland contract”, which is an agreement between stakeholders for a shared, coordinated management of the wetland. It is a voluntary and inclusive tool, written at the EU level, connecting with the Water Framework Directive. As it is a formal contract, it is binding and action-driven. The tool is now extensively implemented in the central Mediterranean in a very diverse range of wetlands, from small (180 Ha) to large (2000 Ha) wetlands, with even larger areas of influence and stakeholder presence.

Each participating wetland has undergone a legal framework analysis, a scientific assessment and a stakeholder assessment before initiating participatory processes to come to a Contract. The Project has evidenced the complexity involved in co-management, but also the value of accepting diversity as a strength, rather than a weakness. The Project has also evidenced the need to transfer power to local communities, which requires "right-holders" (who own decision-making processes) to be willing to engage in a new deliberative arena and reach compromises with stakeholders.

One of the key recommendations stemming from the Project is that community building should be encouraged and supported as a necessary condition to build (ecologically and economically) resilient communities. If people are not aware of the value of being part of a community, they will not be inclined to play a significant role. Ecosystem-based solutions should emerge from integrated assessments that allow people to value nature and be aware of the benefits derived from using and ecosystem-based approach to the management of natural resources. One significant contribution to the Water Framework Directive will be the need to improve public participation, together with the proposed implementation of "environmental negotiated agreements", similar to the "wetland contracts" tested through the Project.

After this initial round of presentations, Gilles Van de Walle (FARNET) initiated a dialogue amongst the contributors and participants to the Workshop. The results of these discussions are integrated as policy recommendations in the highlighted box below.

Session 2: How to ensure transferable approaches for holistic biodiversity protection: from protected key biodiversity areas (PAs) to safeguarding ecosystem functions (ecoregions).

Session 2 reflected on transferable approaches to biodiversity protection, capitalising on lessons learned from projects developed by the Biodiversity Protection Community that can help to advance the transition from protecting sites (PAs) to safeguarding ecosystem functions. The session was moderated by Sonsoles San Roman, ETC-UMA and included contributions from Maria del Mar Otero (IUCN), Joaquim Garrabou (CSIC), Simonetta Fraschetti (University of Naples), Catherine Piante (WWF) and Salvatore Livreri (MPA Island of Ustica).

Project POSBEMED · Maria del Mar Otero (IUCN)

Maria del Mar Otero (IUCN) introduced key lessons learned from Project POSBEMED, an 18-month, scoping project which looked at ways to improve beach management and protect Posidonia habitats. The Project focused on the management of Posidonia beaches, as the interface between Posidonia meadows and those Posidonia banquettes that accumulate in beaches. The Project targeted three main objectives:

- Analysing current management practices of Posidonia banquettes in five EU countries.
- Developing integrated and adapted tools for banquette management.
- Proposing a governance model and a common strategy towards managing banquettes.

The Project has come to show that, in spite of their ecological importance, 83% of local municipalities (of a total of 100 researched per country) remove the banquettes every year (sometimes once a year, sometimes more often). This includes beaches in MPAs. Most of the time, removal is done with heavy machinery (bulldozers) or land machinery (screeners to filter sand), with a significant effect on the beach. The Project concludes that local communities are not aware or do not value the ecosystem services provided by these banquettes (in terms of coastal resilience, beach restoration, nutrition of dunes, etc.). Furthermore, although once removed sometimes these banquettes are reused for

agricultural purposes, most of the time they are deposited in landfills and incinerated or dumped back to sea (which adds to 7000 tons of banquettes being thrown at sea, without regard to the potential effect on water salinity). Since government agencies do not keep records of these processes, the extent of the issue remains largely unknown. The Project developed a local governance strategy that engages the tourism sector (including local businesses catering to tourists and local citizens, as well as tourists and visitors). When consulting on the perception these agents had on banquettes, the local businesses working within the tourism sector had a very negative perception towards Posidonia banquettes as they felt they would negatively affect the perceived quality that tourists have of local beaches. The tourists surveyed, however, seemed to be reasonably tolerant towards them.

Ms Otero called for a common approach to tackle this issue at a wider Mediterranean level, establishing preliminary criteria for Posidonia beaches and defining strategic objectives to:

- Maintain ecosystem integrity while enabling their sustainable use.
- Restore the damaged ecosystems to enhance resilience of the Mediterranean coast.
- Enhance society's understanding of the functionality and services of Posidonia beaches and dune systems.
- Ensure high level of conservation of priority sites.

She emphasised the need for a legal framework to approve banquette removal and beach wrack activities, as currently such activities are not monitored and are not subject to an Environmental Impact Assessment (EIA). She also called for the integration of terrestrial and Marine Protected Areas where Posidonia is found on the littoral zone.

Project MPA-ADAPT · Joaquim Garrabou (CSIC)

Joaquim Garrabou (CSIC) presented Project MPA-ADAPT, which seeks to enhance PAs' adaptation to climate change. The Project's key objective is to enhance resilience of MPAs towards climate change through collaborative and site-specific MPAs adaptation plans to efficiently manage climate change effects. Mr Garrabou started by acknowledging that climate change is happening and it matters, as the World is already facing temperature increases of 1.5ºC both on land and at sea. He explained that some MPAs are currently more affected than others, but that for MPAs to be useful, we need to acknowledge the impact of climate change and better understand what is happening at the site level. Project MPA-ADAPT is working along these lines, undertaking actions including:

- The development of protocols and indicators to monitor climate change in MPAs. Five monitoring protocols have been implemented:
  - Temperature
  - Effects of high temperature conditions on biota and mass mortality events.
  - Changes in species distribution (fish species that are indicators of change).
  - Two additional protocols based on local knowledge: interviews of fishermen on fish distribution.
  - These protocols have been shared with the Biodiversity Protection Community (i.e AMARe) for implementation in other MPAs. Also, a collaboration scheme has been set up with PADI/DAN and the protocols have been adapted for visual census through citizen science.
- The instalment of temperature sensors in MPAs (every 5 meters along the coast) to produce a high-resolution profile of temperature conditions in the water column (which is not always readily available, otherwise). Data gathered now includes 14 million temperature readings (emphasising the great value of working with standardised of data protocols).

> Monitoring and vulnerability assessments to then develop Climate Change Adaptation Plans for MPAs, all involving capacity building of local stakeholders.

Mr Garrabou concluded with a final message: PAs could be seen as cumulative solutions to climate change. Whereas acting at a global scale might prove challenging, acting locally helps to build the resilience of ecosystems, facilitating adaptation to climate change.

Project AMAre · Simonetta Fraschetti (University of Naples)

Simonetta Fraschetti (University of Naples) took the floor to introduce Project AMAre, which is looking at integrating biodiversity information for Protected Area planning.

Ms Fraschetti started her contribution by highlighting that the development of the blue economy anticipates increased uses of the sea, so there is a need for very urgent action to limit and mitigate multi-stressors. She argued that multiple-stressors are not spatially regulated, particularly in the Mediterranean Sea, and that even though MSP is a commitment of the European Union, there are no practical examples of successful MSP in the Mediterranean. Project AMAre is therefore seeking to use MPAs as laboratories to implement local scale examples of MSP. The Project has two components:

> A theoretical component (methodologies).
> A practical component through pilot actions, including the assessment and documentation of multiple stressors within MPAs. MPAs create hotspots of conflict around the use of natural resources, which then leads to biodiversity losses that are not assessed (because they are very local). AMAre is seeking to assess these losses by working at a local scale.

Reflecting on the key results and findings of Project AMAre, Ms Fraschetti referred to the fact that 60 years after the first MPA was designated, we are still at the stage of not having enough data to guide decisions. There is still an important need to develop fine-scale maps/information to learn more about the distribution of biodiversity and the human threats it faces. This information is still very scarce. So Project AMAre is using a spatial geo-portal where data is stored, managed and shared within each MPA, but also amongst other MPAs, as there is a need to share knowledge. Spatial tools are very important to store information, but also to provide direct information on where to sample. Results are still static and further work is required to put them into a dynamic system, but for the moment, having such a detailed map with the distribution and intensity of for example, fisheries, and their effect on biodiversity is very inspiring to advance ecosystem-based management.

Ms Fraschetti emphasised that approaches to harmonise and standardise data are very important at the local scale (MPAs), but also fundamental to feed MSP. Human activity cannot be reorganised without this type of information. The same applies to the MFSD. An important, closing remark: as a group, we are focusing much on expert opinion and large-scale assessment, but for EBM we need local data to feed large-scale assessments.

Project PHAROS4MPAS · Catherine Piante (WWF)

Catherine Piante (WWF) based her contribution on the work being undertaken through Project PHAROS4MPAS, which seeks to develop effective mechanisms for proper ecosystem function in the face of a growing blue economy. Ms Piante explained that through her work at MedPan, where she is the director of a Board that represents 100 MPAs from 18 countries, conversations with MPA managers unveiled the emergence of new activities around MPAs (aquaculture farms, international harbours, tankers anchoring over Posidonia meadows etc.) that are making their job increasingly challenging. Most of the time they acknowledge insufficient knowledge to take action towards better management of these activities at the MPA. Project PHAROS4MPAS was set up to gather data on interactions

between MPAs and a set of 8 maritime activities and to develop guidelines for better management. She referred to a disconnect between what happens at top policy development processes and what happens on the field, evidenced by a lack of a common approach to emerging pressures. For this reason, the Project is seeking to address this gap by gathering data, generating information and disseminating the results to key, target economic sectors. The Project will ultimately deliver an integrated framework for recommendations on the necessary practical collaboration between Mediterranean MPAs and eight maritime sectors, including:

- Transport: Maritime transport and ports; Cruises, large yachting and tour boats.
- Energy: Offshore wind farms.
- Fisheries: Aquaculture; Artisanal fisheries/Small-scale fisheries.
- Tourism: Scuba diving; Leisure boating; Recreational fishing.

The Project will seek to feed its results to:

- MPA managers, offering recommendations and training.
- Maritime spatial planning authorities, informing them of problems faced by MPA managers.
- Maritime business sectors (as described above).
- The EU Commission and international policy frameworks (Barcelona Convention, etc.).

These contributions triggered a debate initiated by Salvatore Livreri (MPA Island of Ustica), leading to a wide discussion amongst participants of the Workshop. The results of these discussions are integrated as policy recommendations in the highlighted box below.

Session 3: How to address regional pressures to reduce impacts on Mediterranean ecosystems: gathering knowledge on pollution, including marine litter threats.

Session 3 tackled transboundary pollution and its effects on Mediterranean ecosystems, focusing on water pollution and marine litter. The session sought to reflect on findings and practical solutions tested by projects undertaken by the Interreg MED Biodiversity Protection Community that can help PAs anticipate, manage and mitigate the effect of pollution on biodiversity by using innovative and adaptive technologies. The session was moderated by Carolina Perez (MedCities) and welcomed contributions from Samir Jodanovic (Development Agency of Una-Sana Canton), Emanuele Bigagli (PANACeA expert), Ignasi Mateo (SCP/RAC) and Cristina Panti and Ilaria Caliani (University of Siena).

Project EcoSustain · Samir Jodanovic (Development Agency of Una-Sana Canton)

Samir Jodanovic (Development Agency of Una-Sana Canton) presented the work being done by Project EcoSustain, which is currently adapting and testing technology for real-time monitoring of water quality in protected areas. The Project seeks to develop transferable tools and methods for water monitoring as a way to mitigate threats to biodiversity. During the Project, Mr Jodanovic explained, buoys have been deployed in natural parks for short-term monitoring of water quality. All the data is available and shared amongst participating PAs, and has proved of interest to national water authorities and secondary end-users, such as environmental agencies and NGOs. The following actions are being undertaken:

- Development of Status Reports for national parks regarding water quality, including management, monitoring and networking segments.

- Development of Operations Strategy and Action Plan, including information and guidelines on how to train staff, test and monitor implementations of regulations, how to monitor water quality, defining monitoring practices, etc.
- Technical specification of monitoring solutions including what area needs to be covered, what chemical elements to be monitored and measured by buoy sensors and satellite data.
- Testing of the water quality monitoring tools developed:
    - Development and implementation of short-term monitoring solution: Software tool that enables real-time monitoring of water quality parameters (e.g. pH, Ammonium, Algae, Chloride etc.) by means of sensors on a buoy and communication infrastructure on shore, an early-warning system, push/pull user notifications.
    - Development and implementation of long-term monitoring solution: Software tool based on a GIS map with monthly satellite images and measured indicators as additional layers on top of it (Chlorophyll-a, NO3, NH4, Phosphorus, pH, Oxygen, Temperature, eutrophication, surrounding vegetation index, crop classification).

The Project will develop methods to transfer the project results, leading to improved networking amongst MPAs on water quality monitoring.

Project MEDSEALITTER · Emanuele Bigagli (PANACeA expert)

Emanuele Bigagli (PANACeA expert) took the floor to present Project MEDSEALITTER, which is working to monitor marine, open-sea litter with the support of technology to measure litter amounts and interactions with biota. Through the Project, Partners from four EU countries (France, Greece, Italy and Spain) are jointly developing, testing and implementing standardised protocols to monitor marine litter and its impact on biodiversity, with a view to transfer these protocols to a wider range of MPAs. The Project is testing different methods to monitor litter both on larger scale areas and pilot MPAs, analysing both floating litter and the presence of ingested marine litter in fish and sea turtles.

Essential data regarding floating litter includes amount, composition (material, size, colour) and geographical position. Preliminary results show that more than 80% of litter observed from ferry platforms is composed of artificial polymers, while 90% of litter observed from planes in anthropogenic. During summer and wintertime there is a maximum overlap between litter density and the presence of cetaceans. Regarding ingested litter, higher risk areas and seasons have been identified also due to the overlap between high presence of marine litter and marine fauna. Ingested marine litter has been classified according to amount, type, colour, and industry source.

The final standardised monitoring protocol, defined by its geographical scale of use, measurement methods (platform/type of analyses), and the best compromise among applicability, scientific validity, and practical and programmatic considerations (e.g. balance costs-available resources), will use four sub-protocols (micro/macro litter; large/MPA scale) to estimate, on a long-term basis:

- Rates at which marine litter enters the environment (and related sources).
- Spatial and temporal variations.
- Impacts of marine litter.

The protocol will aim to characterise litter in terms of type and related industry, helping to identify main sources of contamination, changes in relation to policy actions, and the most urgent issues to be addressed, helping to plan adequate mitigation actions and to provide consequent recommendations for its management. The common methodology will be shared within a network of international MPAs and scientific organisations, contributing to the requirement of the waste and marine biodiversity legislative framework to reach a common policy of biodiversity protection. A policy paper is underway,

proposing a revision to the "master list" used to gather data on marine litter and an improvement of existing guidelines for monitoring marine litter, which will be reviewed in 2019 in the context of the WFMD.

Project ACT4LITTER · *Ignasi Mateo (SCP/RAC)*

Ignasi Mateo (SCP/RAC) presented key findings and results of Project ACT4LITTER, which has developed standardised protocols to monitor litter on beaches and decision-support tools to aid in MPA marine litter management through action plans. Mr Mateo highlighted the following results:

- Identification of 105 measures to tackle marine litter. A specific contact (name, telephone, email) has been linked to 44 priority (prevention and correction) actions, providing a direct communication channel between MPA managers and a person that can provide support and guidance to implement each action. The full list of actions can be found in ACT4LITTER's website (https://act4litter.interreg-med.eu).
- Development of a Decision-Making Tool (DMT) to assess the feasibility of the measures, allowing MPA managers to select the most relevant measures by taking into consideration the specific context of the MPA. The DMT will be available in the Project's website soon, as it is being "fine-tuned" with additional information on each measure.
- Design of an Action Plan with a participatory approach per MPA. A total of 9 action Plans have been produced, including information on marine litter presence in the area and the contact of the person responsible for implementing the Acton Plan and the 2-3 key priority measures that will be adopted in each MPA within the next 2-3 years.
- Implementation of Marine Litter Watch Monthly, a magazine geared at building capacity amongst MPA managers to monitor marine litter with a standard methodology.

These results will be fed into the PLASTIC BUSTERS MPAs project, which will be supporting MPAs with the implementation of pilot measures and the development of a joint governance model at the Mediterranean level. The results will also be shared with other MPAs throughout the Mediterranean through MedPan.

Project PLASTIC BUSTERS MPAs · Cristina Panti and Ilaria Caliani (University of Siena)

Cristina Panti and Ilaria Caliani (University of Siena) joined the conversation to introduce Project PLASTIC BUSTERS MPAs, which is applying a holistic approach to preserve biodiversity against plastics in Mediterranean MPAs. The Project's main objectives are:

- To define a harmonised methodology at the national and regional level to monitor marine litter, following a multidisciplinary and integrated approach.
- To identify marine litter hotspots in the Mediterranean.
- To assess the effects of marine litter on biodiversity.
- To set up a joint governance model to tackle the issue at a Mediterranean level.

An initial five MPAs are involved in the first, testing phase of the Project, which will then engage an additional 10 MPAs to transfer the results of the test.

After these initial contributions, Carolina Perez, supported by Carlos Guitart (ETC-UMA), initiated a debate with the panellists and Workshop participants on the results discussed, lessons learned and how to transfer these results to a wider Mediterranean level. The results of these discussions are summarised in Section 3.1.

Afternoon Session // Integrating ecosystem-based approaches in regional sectorial policies: Dialogue with policy makers

Round Table 1: Targeting a more sustainable use of natural resources towards a blue economy

Round table 1 looked at the role that public authorities should play to support blue growth while preserving ecosystems, facilitating the transition towards a more sustainable use of natural resources. The session was moderated by Laurent Sourbes (MedPAN, Zakynthos National Marine Park) and featured Eleni Chatzigianni (Region of Crete), Francesca Marcato (Interreg Med Programme Joint Secretariat), Nikos Zampoukas, (DG-Research and Innovation of the European Commission - EC) and Sylvain Petit, (UN Environment PAP/RAC).

Eleni Chatzigianni (Region of Crete) recognised the key role of Crete's regional authority in preserving biodiversity as one of Greece's islands. She explained that Crete is an insular territory and therefore faces important challenges in the coastal zone and around the area. Sectors of the blue growth joined in Crete, and together with the regional authority explored synergies amongst sectors, as all of them are important to Crete's economy. She explained that two key areas of collaboration are coastal and marine tourism and maritime surveillance. Preserving biodiversity is key, as tourism is a way of providing ecosystem services to visitors and she pointed out the fact that a great part of Crete's territory includes Natura2000 sites. Regarding maritime surveillance, the authorities try to focus not only on safety (related to peace or regulating migration), but also on how to keep a healthy marine and coastal environment.

She then highlighted the importance of also working together with other authorities to advance a shared governance of the Mediterranean, a process that is now gaining momentum through project PANORAMED. Through this Project, national and regional authorities from different Member States, together with a strategic, high-level group of Partners are exploring links and synergies amongst issues related to tourism and maritime surveillance and guiding future action towards multi-level governance, preparing a new strategic framework for INTERREG.

Francesca Marcato (Interreg Med Programme) referred to PANORAMED as an important step forward towards shared governance in the Mediterranean. She explained that after 2 years of hard work, the MED program has opened a new call feeding from this effort, as well as from the work of the thematic communities of Interreg MED. The synthesis of the Projects developed by these communities has shed light on the needs and gaps that need to be covered, resulting on a new call for projects focusing on 1) Blue Economy; 2) Sustainable Tourism; and 3) Biodiversity Protection. She highlighted that the new call prioritises cooperation, following an integration (working with different actors) and holistic (working with different topics) approach. The thematic community of Blue Economy works together with the Interreg MED Biodiversity Protection Community because those economic actors that are taking the blue economy forward must take environmental protections into consideration. It is important to work together and to match gaps through an integrated approach. When projects finish, they can still continue to be part of their thematic community and their results can continue to live, as they will through the Interreg MED Biodiversity Protection Community knowledge platform featured by PANACeA. The key message is that authorities must work by following an integrated approach, connecting with different actors and acting across different topics (thematic communities).

Nikos Zampoukas (DG-Research & Innovation, EC) addressed the importance of having authorities develop a research policy for marine resources, which the EC is supporting through Framework Programmes, amongst other instruments. He referred to Horizon 2020 and to an upcoming, new 7-

year programme as a tool to support the implementation of the Blue Growth Agenda and the EU maritime policy, as well as the MSFD in all European seas, including the Mediterranean. He explained that DG Research & Innovation has supported the development of assessment methods for the descriptors of biodiversity through different projects. As these projects sometimes are a bit conceptual, he added, the EC also seeks to boost the blue economy, having identified potential in aquaculture, renewable energy, coastal and maritime tourism, marine biotechnology and mineral resources. For example, the COCONUT project is working on wind farms in the Mediterranean, delivering an atlas of wind potential in the Mediterranean and the Black Sea. He explained that the fishing sector is not considered as part of "blue growth", as there is no potential for growth. However, there is potential for better management, which is why DG-Research & Innovation is promoting the application of ecosystem-based management in fisheries through pilot projects and case studies that then feed the GFCM stock assessment process.

One key area where DG-Research & Innovation sees massive potential for growth in the Mediterranean is aquaculture, which is not being realised. He referred to two €7-million projects in Spain and Greece that might trigger growth in the Mediterranean. This effort also includes developing environmental assessments for aquaculture and understanding how to sustainably manage aquaculture with other competing activities. He mentioned sea bream and sea bass as species currently being harvested, although there is interest in expanding work to other species. The grey mullet is another very promising species, he argued, and farmers will be informed of this farming potential.

He then explained that any kind of growth is based on knowledge and knowledge requires data, which is why they are funding project ODISEA, which is working to gather marine data. DG-Research & Innovation is also funding projects to open new horizons, researching the mesopelagic (200-600m) zone to understand biomass, biodiversity (including microbiological biodiversity) and consider scopes to exploit these resources. He added that DG-Research & Innovation is now moving towards Horizon Europe (2021-2027) – where marine research will fall under a cluster called "natural resources and food", with an expected budget of 10 billion for this cluster. This massive program will include a strong mission-based approach – money dedicated to a portfolio of actions easily understood by the citizen (for example, the Mission for Plastic Free Ocean) and seek to boost blue growth and jobs.

He closed with a reference of the key role that national authorities can play in funding initiatives to support the development of a sustainable, blue economy, as they will manage 85%-90% of Horizon Europe. Therefore, the greatest impact will come from nationally managed funds. The BlueMed Initiative is further seeking to coordinate action in the North and South of the Mediterranean and to fund this collaboration.

Sylvain Petit (UN Environment PAP/RAC) introduced the importance of ensuring a coordinated action amongst public, national authorities to advance biodiversity protection in the Mediterranean. Working towards coordinated action is the spirit of the Barcelona Convention, and PAP/RAC is working to advance Integrated Coastal Zone Management (ICZM) as part of its mission as a legally binding instrument for Mediterranean regions. He called for ICZM to take a significant place in future projects dealing with biodiversity conservation. He argued that calls for proposals must consider actions to fit into wider action schemes that bring land and sea together. When discussing governance, it must be anchored in trust and broadened to encompass all the economic sectors that gravitate around public authorities, as well as integrate non-EU countries. Realising that this is not an easy task, he suggests that non-EU countries should be able to join EU-funded projects as partners, not just observers. He further argued that ICZM provides tools to manage conflict between the use of natural resources and protecting nature. The ecosystem-based approach is the guiding principle of the Mediterranean Action Plan, and ICZM is not a goal on its own, but a path towards reaching a good environmental status of

the Mediterranean Sea. In this respect, the Barcelona Convention provides an agora where countries from the whole Mediterranean basin can discuss challenges and solutions.

Mr Petit reflected on the fact that when the blue economy is discussed, the issue of raising demand for space at sea comes to the forefront. However, we must remember that everything that happens at sea starts on land. Therefore, land-sea interactions must be one key component of MSP. Again, ICZM offers some of the key readings to address those interactions.

Regarding natural and anthropic pressures, he emphasised that integration is crucial at different policy scales (global to local), but we must take into consideration that we have a challenge to integrate different time scales. For example, if we take into consideration coastal erosion, the mayor of a coastal city is going to address coastal erosion keeping in mind the need to have beaches to attract tourism flows.

At a global level, we want to push forward an agenda to address a receding coastline, but we must take into consideration conflicting, legitimate interests. He highlighted the need to explain ICZM to all relevant stakeholders and continue the conversation, so as to "demystify" ICZM.

Round Table 2: Responding to pressures from a nature protection perspective in a scenario of scarcer natural resources and uncontrolled environmental threats

Round table 2 focused the discussion on the environmental threats posed by the blue economy – expected to exacerbate even more in the future- and how protected areas are responding to these threats, reflecting on policies and management practices that can help to achieve an efficient, sustainable use of natural resources within and beyond protected areas, versus an unsustainable but profitable use in the short term. This session was moderated by Catherine Piante (WWF) and featured Vedran Nikolić (DG Environment, EC), Clare Waldmann (EU MSP Platform), Véronique Tourrel Clément (Union of Marinas of Provence-Alpes-Côte d'Azur) and Eleni Fytoka (Greek Biotope/Wetland Centre).

Vedran Nikolić (DG environment) pointed to the blue economy as a reality that is quickly evolving, but warned that the current, poor environmental status of European seas might hinder blue growth. Maritime Spatial Planning is a tool that can help identify opportunities for sustainable growth, but the pre-condition for success is to have the main environmental pillars for environmental protection -the Marine Strategy Framework Directive (MSFD) and Birds and Habitat Directives- implemented. Therefore, the current priority of the European Commission is full implementation of the Birds and Habitats Directives, which aim for a coherent and effectively managed network of Natura2000 sites sufficiently covering the areas that are important for protected habitats and species. MPA coverage has already surpassed 10% of EU seas and should be further complemented by further expansion of the Natura2000 network and spatial measures under the Marine Strategy Framework Directive (MSFD) to achieve a coherent MPA network. The Action plan for nature, people and economy aims to complete the designation of Natura 2000 sites, especially offshore and to put in place the necessary conservation measures for all sites. EU environmental policies aim for healthy and clean seas where ecosystems are in good environmental status and protected species and habitats are restored and maintained in the favourable status. These are overarching goals that will determine what needs to be done post 2020 and those discussions will be based on the upcoming report on the state of nature under BHD (2013-2018) and of the implementation of the 2020 EU biodiversity strategy, as well as on the level of achievement of the international goals, Aichi targets under the UN Convention on Biological Diversity (CBD) and the UN Sustainable Development Goals (SDGs).

Mr Nikolić further referred to the importance of Maritime Spatial Planning (MSP) as a valuable tool for making maritime activities environmentally sustainable and for setting opportunities and boundaries

for blue economy sectors. MSP integrates the ecosystem approach and the environmental pillars of the process are the MSFD and the Birds and Habitat Directives. The precondition for successful maritime spatial planning is therefore full implementation of these two policies, as stated above, including the requirement of the MSFD for spatial protection measures contributing to coherent and representative networks of Marine Protected Areas. The Natura2000 network designated under the nature directives covers almost 10% of EU waters and makes the largest contribution to the EU MPA network (75% of all MPAs), however there are still designation and management gaps in the network that need to be addressed, especially in the Mediterranean Sea (less than half of the sites have management plans). MSP should firstly apply a precautionary approach to developing activities that could affect future MPA designations and the establishment of coherent MPA networks, and secondly play a crucial role in managing maritime activities in line with the conservation objectives and management plans of existing MPAs. Under its Action plan for nature, people and the economy, the Commission will soon be launching a study on integrating an ecosystem-based approach into maritime spatial planning. He explained that the European Commission is also supporting a project that will propose the methodologies and criteria to analyse the coherence of MPA networks in the Mediterranean Sea with a case study for the Adriatic Sea, which should feed into the on-going MSP process.

According to Mr Nikolić, the management framework for Natura2000 sites is the key driver for making maritime activities in MPAs sustainable so that they do not pose a threat to protected biodiversity, but rather an opportunity to reap socio-economic benefits. To help the authorities and stakeholders better manage economic activities in Natura2000 sites, a series of sectorial guidance is available and is being translated into all EU languages. A number of actions under the Action Plan for Nature, People and Economy further aim to help them deal with permitting projects and activities, to facilitate the implementation of fishery measures under the common fisheries policy, to better use EU funding opportunities and to exchange best practices. One of the tools is the Natura2000 bio-geographical process, a series of seminars and workshops promoting cross-border cooperation and including stakeholders in MPA management– this has synergies with other such networks in the Mediterranean, like MedPAN or the work done under the Barcelona Convention.

He finalised by saying that in spite of progress in the Natura2000 network, the Mediterranean is still not well covered. He suggested that current political support should be seized to bring forward additional action, applying the precautionary approach to marine activities until formal MSP plans are drafted by all regions and a solid biodiversity layer from the MSP exists. He emphasised that some EU countries are "doing their homework" and some are not. Therefore, there is a need to support and engage with State authorities to feed them the results of on-going projects undertaken by the Interreg MED Biodiversity Protection Community and to support them with the implementation of MSP and the integration of the ecosystem-based approach.

Clare Waldmann (EU MSP Platform) then referred to existing tools that can support the effective integration of the ecosystem-based approach in MSP, differentiating available policy and implementation tools:

- From a policy perspective, she explained that both the MSFD and MSP Directive include a reference to the ecosystem-based approach in their text. However, the obligation under MSFD is stronger – "shall be applied" in Art 1(3), while the MSP Directive has references throughout, but EBA is not included as a minimum requirement. Strategic Environmental Assessment, on the other hand, plays an important role to improve the plans, by reducing the possible environmental impact a plan can cause. In these assessments, alternatives are provided on issues which might do harm to the environment. When a plan is approved, projects will start on implementing the plan. For example, new offshore wind farms will be built in designated

areas. When doing so, an Environmental Impact Assessment (EIA) needs to be conducted to analyse the potential negative consequences and to find alternatives.

> From the perspective of implementation tools, Cumulative Effect Assessments look at how combined human activities affect the environment. For example, researchers from the University of Aveiro (Portugal) developed and tested an approach to identifying priority areas for conservation that are less impacted by human activities than other areas. The approach combined Marxan and cumulative impact decision support tools to analyse areas for conservation initiatives in marine waters off mainland Portugal. The results show the value of considering human activities and uses in conservation planning and developing management alternatives, as well as how ecological goals can contribute to MSP in Portugal as part of applying an ecosystem-based approach. The results provide new inputs for allocating space as part of MSP and also for dedicating MPAs as part of MSFD measures.

She further referred to the contribution that MSP could make to the implementation of the MSFD Programs of Measures in terms of scientific data currently used for maritime planning. In return, monitoring under the MSFD could provide MSP with relevant (spatial) data and information for the planning process, e.g. to review the plan and assess its impact on the environment. Additionally, SEAs developed for MSP plans also assess negative environmental impacts, including biodiversity loss.

Reflecting on the scale at which MSP is most relevant (PA, ecoregion, the whole Mediterranean Sea), Ms Waldman emphasised that the legal mandate for MSP comes from the MSP Directive, which requires coastal EU MS to develop plans for their national waters by 2021. Therefore, from a legal perspective, the national scale is the basis for the plans. At the same time, the Directive also requires EU MS to cooperate (art. 12):

> *"As part of the planning and management process, Member States bordering marine waters shall cooperate with the aim of ensuring that maritime spatial plans are coherent and coordinated across the marine region concerned. Such cooperation shall take into account, in particular, issues of a transnational nature."*

But she added that it all depends on what is meant by marine region. In the Baltic, for example, a marine region is interpreted to mean the whole Baltic Sea. The whole Mediterranean Sea can also be thought of as an ecoregion, thus relevant.

The MSP Platform has opted to artificially divide the Mediterranean into East and West Med. Looking across these various scales, she argued, the importance of a multi-scalar approach to MSP becomes apparent. A workshop earlier this year concluded that the application of the ecosystem-based approach is in itself already challenging for any MSP process and any country, regardless of their size. The real challenge any country has to deal with is whether "preservation of ecosystem functionality" is taken as something fundamental for the entire MSP process (in line with the EBA) or is restricted to Protected Areas' management. Ecosystems go beyond national borders, so there is a mismatch in terms of the legal mandate given to MSP at the national level and at the ecosystem scale.

Véronique Tourrel Clément (Union of Marinas of Provence-Alpes-Côte d'Azur) took the floor to introduce the perspective of an economic sector that is proactively taking action to reduce its environmental impact, through their Clean Ports Initiative. The Union launched the "PORTS PROPRES" in 2011, which is a European environmental label for marinas. This certification scheme moves marinas to act on waste and all products leading to pollution in the port, following a five-stage process:

> Survey and diagnosis of pollution sources.
> Controlling pollution.
> Controlling accidental pollution and water and energy consumption.

- Training of marine workers.
- Undertaking user awareness programmes.

This scheme provides marinas with guidelines to control recurring pollution and establish clean zones for solid waste and user waste, as well as to act on terrestrial biodiversity by for example installing biodiversity huts.

Reacting to a question on the intensive penetration of marinas along the coast (in France and Spain there is a marina every 14 km) and their cumulative impact, she noted that there is a current strategy targeting prioritisation of bigger boats versus smaller boats, to reduce the number of boats in a given area.

Mr Nikolić then highlighted how well this example illustrates the existing issues stemming from blue growth. While a sector might take action, there is a need to take into account the cumulative impact of activities, and set boundaries to growth. MSP is critical to keep cumulative impacts under perspective. Ms Waldmann reacted by reflecting on the challenges and opportunities of using cumulative impact assessment: one of the main challenges is the quality of data. She argued that cumulative impact assessments are attractive because they show maps, but it is important to keep in mind that these assessments are not just about producing maps, but should integrate additional information regarding ecosystem sensitivity that needs to be taken into consideration.

Eleni Fytoka (Greek Biotope/Wetland Centre) joined the conversation on multiple pressures and cumulative impacts from the perspective of land-sea interfaces, referring specifically to wetland ecosystems. Ms Fytoka shared her experience with the WetMainAreas INTERREG BalkanMed project - a transnational ecosystem-based approach to improve wetland conservation. The Project focuses on wetland conservation at the territorial level, seeking to firstly improve the knowledge on wetland distribution, and then to assess the connectivity of wetland ecosystems within Natura2000 networks and between Natura2000 sites and Emerald sites. The Project is also looking for natural areas of high biodiversity value outside protected areas and trying to identify the main pressures that threaten their good environmental status, mostly coming from pollution, insufficient use and fragmentation, because of expansion of urban areas. She called for human interventions to be mapped, explaining that one pillar of the project is to create such information (wetland distribution outside PAs and human interventions) and to develop actions to disseminate it through a portal. She argued that connecting with protected areas within the wider landscape network is a valid solution towards protecting biodiversity. Improving the coherence, connectivity and resilience of PAs is a way of helping PAs to respond to environmental threats brought in by the blue economy.

Ms Fytoka proceeded by stating that key landscape features and “stepping stones” such as wetland ecosystems outside protected areas should be integrated in ecosystem-based approaches within conservation actions for protected habitats and species of the PAs. She argued that conservation-management efforts are being targeted within the boundaries of the protected areas, without considering the whole landscape and integrated ecosystem-based approaches, although relevant policies (such as the Habitat and Bird Directives, the Water Framework Directive, target 5 of the Biodiversity Strategy, etc.) recommend integration of ecosystems and natural resources at wider landscapes such as catchments. Often there is lack of knowledge of areas of high biodiversity value outside protected areas, and consequently a lack of conservation and management measures. Protection measures cannot be limited to PAs because the influence area is much larger than the boundaries of the PA. Wetland ecosystems and other ecosystems should be used as natural steps towards building corridors that ensure the resilience of the network. She highlighted the WetMainAreas Project as an example that focuses on wetland conservation outside protected areas to address the transnational challenge for ecological connectivity and the integration of transnational ecosystems.

Finally, Ms Fytoka referred to links between these efforts and the transferable tools developed by WETNET and project EcoSustain. She explained that unprotected lands, where human presence, development or activities occur at some level, may have a high value for biodiversity. Their mapping and the assessment of their connectivity with PAs, provide baseline knowledge for planning responses to threats. However, even if a network is well connected at the landscape level, conservation objectives may not be assured in the long term without joint action plans and without the commitment of stakeholders to promote the integration of protected areas in vast regions. She referred to a great potential to exchange and learn from WETNET's approach to institutional collaboration and to the integration and coordination of various political plans and initiatives that affect the protected wetlands.

Specifically, the participatory tools that are tested in order to actively involve local stakeholders in the conservation, management and sustainable development of ecosystems and landscapes of wetlands could be integrated as good examples in WetMainAreas guidance document. Stakeholders should be able to gather the information they require to interpret conservation needs and the associated threats. To facilitate this, data and maps and other interpretation information need to be accessible. WetMainAreas will develop a web platform to share wetland inventory data and geospatial data, connectivity results (i.e. maps, infographs) that will be publicly available. There is great potential for synergies with EcoSustain, which focuses on water quality monitoring and applies tools for providing live, early warning messages. She highlighted specifically opportunities within the pilot implementation of satellite-based water monitoring system at the Eco development area Karla-Mavrovouni-Kefalovriso-Velestino of Greece, as this area is also covered by WetMainAreas and results could be shared.

Round Table 3: The need for a Mediterranean, ecosystem-based territorial integration that acknowledges the uniqueness of Mediterranean ecosystems and brings together all relevant actors from the region

Round table 3 took the previous discussion to a regional level, based on the shared idea that environmental issues, species and habitats know no administrative boundaries. Participants reflected on current mechanisms in place to protect key biodiversity and habitats outside administrative boundaries; on the way that existing governance frameworks address the ecosystem-based approach, focusing on ecological units for effective protection; on mechanisms that support cooperation for an ecosystem based management at the protected area level; and on recommendations for a regional ecosystem-based management of natural resources across countries, including key ecologically important units. This session was moderated by Elen Lemaitre-Curri (Plan Bleu), with the participation of Miguel García-Herraiz (Union for the Mediterranean - UfM), Stavros Antoniadis (UN Environment MAP), Christophe Le Visage (WestMed initiative) and Anis Zarrouk (Specially Protected Areas Regional Activity Centre - SPA/RAC).

The session started with a video presentation by **Mr García-Herraiz**, in which he introduced the role of the UfM as a cooperation platform where Mediterranean countries come together to address common challenges, such as preserving the health of the sea in its capacity to be a resource for the people of the Mediterranean. The UfM gathers 43 member states of the Northern shore of the Mediterranean, including EU Member States, Balkan countries, Turkey and Southern and Eastern Mediterranean countries and work with ministerial mandates. Some of these mandates include addressing integrated water management; fostering the blue economy and setting a shared governance approach towards maintaining the ecological health of the region; addressing climate change; or advancing the environmental agenda by working on sustainable consumption and production and advancing biodiversity protection in the Mediterranean. The Sustainable Development Goals provide a

framework for UfM's work, and the organisation is now working towards building a shared vision for the 2030 horizon and addressing new initiatives, such as advancing a circular economy.

Mr García-Herraiz highlighted the role of Interreg communities in inspiring action and providing great input, using the PLASTIC BUSTERS MPAs project as an example of an initiative that has been endorsed by all 43 countries in the Union and noted the need to take actions undertaken at the Northern shore to the Southern shore of the Mediterranean. He closed by highlighting that in spite of the high number of actors present in the Mediterranean region, the UfM is showing that working together on converging priorities and coordinating actions can leverage financial support and deliver a greater scale of action, making progress together towards preserving our shared environment.

The session then moved to address the following questions posed to participants:

- What policy programmes and governance mechanisms are in place to support ecosystem-based management of natural resources and to protect biodiversity hotspots in transboundary areas?
- How does your organisation contribute?
- What are your recommendations to support the above two objectives?
- How do you see the implementation of the ecoregion concept in the Mediterranean?

Responding to the first question, **Stavros Antoniadis** (UN Environment MAP) explained that the ecosystem-based approach is addressed by the Mediterranean Action Plan (MAP) of the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) of the United Nations, mainly through the implementation of the Ecosystem Approach Roadmap (EcAp). EcAp was adopted by the 15th Meeting of the Contracting Parties to the Barcelona Convention in 2008 (COP15), comprising 7 concrete steps within a horizon until 2021. Significant progress has been achieved under each of the seven steps, summarised as follows:

- Definition of an ecological vision for the Mediterranean: "*A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse for the benefit of present and future generations*".
- Setting of common Mediterranean strategic goals for marine and coastal areas:
  - To protect, allow recovery and, where practicable, restore the structure and function of marine and coastal ecosystems, thus also protecting biodiversity, in order to achieve and maintain good ecological status and allow for their sustainable use.
  - To reduce pollution in the marine and coastal environment so as to minimise impacts on and risks to human and/or ecosystem health and/or uses of the sea and the coasts.
  - To prevent, reduce and manage the vulnerability of the sea and the coasts to risks induced by human activities and natural events.
- Identification of important ecosystem properties and assessment of ecological status and pressures: A number of assessment products have been prepared by the Secretariat since the adoption of the Ecosystem Approach Roadmap, with the contribution of Contracting Parties (CPs), all MAP Components, relevant partners and regional stakeholders, with a view to provide a clearer image of the state of the environment in the Mediterranean, and define the main pressures and their sources, including, the Initial Integrated Assessment of the Mediterranean Sea and Coastal Areas (2011), and the State of the Mediterranean Marine and Coastal Environment Report (SoER MED 2012). Socioeconomic aspects have also been taken into consideration. The latest regional assessment report, the Mediterranean Quality Status Report 2017, is fully based on the IMAP common indicators, using data provided by the Contracting Parties or collected through research by other available sources of information.

- Development of a set of ecological objectives (EOs) corresponding to the vision and strategic goals: A set of 11 Ecological Objectives have been adopted by COP 17 in line with the agreed ecological vision and strategic goals for the Mediterranean under the ecosystem approach (Decision IG. 20/4), namely: EO1. Biodiversity, EO2. Non-indigenous species, EO3. Harvest of commercially exploited fish and shellfish, EO4. Marine food webs, EO5. Eutrophication, EO6. Sea-floor integrity, EO7. Hydrography, EO8. Coastal ecosystems and landscapes. EO9. Pollution, EO10. Marine litter, EO11. Energy including underwater noise.
- Derivation of operational objectives (OOs) with indicators and target levels: A set of Operational Objectives and indicators were also adopted in COP 17 for each EO, with a view to break down and complement the ecological objectives to support their achievement, guide monitoring and assessment and as such the progress towards Good Environmental Status (GES). Focus was placed on those ecological objectives for which data availability and methodological advancements would allow their effective monitoring. Therefore, COP18 adopted an integrated list of Mediterranean Good Environmental Status definitions and related targets. COP 19 adopted a list of Common and Candidate Indicators for an Integrated Monitoring and Assessment Programme (IMAP), covering most of the Ecological Objectives with the aim to serve as the basis for the integrated monitoring and assessment at regional and national levels. EO4 and EO6 were excluded from this process, as conditions were not mature enough to ensure monitoring feasibility.
- Revision of existing monitoring programmes for ongoing assessment and regular updating of targets: IMAP sets out all the required elements to establish the first region-wide Integrated Monitoring and Assessment Programme, covering in an integrated manner the monitoring and assessment of biodiversity and fisheries, pollution and marine litter, coast and hydrography, based on region-wide common indicators. During the initial phase of IMAP (2016-2019), the Contracting Parties to the Barcelona Convention are expected to update their national monitoring and assessment programmes in line with the IMAP structure and principles and based on the agreed common indicators, with support from the Secretariat.
- Development and review of relevant action plans and programmes: This step is implemented on a multi-layer perspective, covering all the aspects of the legal and policy framework of the MAP- Barcelona Convention. The ecosystem approach has been raised by the Contracting Parties to the programmatic level, reaffirmed as an overarching principle of the Barcelona Convention and as such has been integrated into the legal and policy framework of the Barcelona Convention including legally and non-legally binding instruments. More specifically:
    - MAP Programmatic documents (Mid-Term Strategy 2016-2021) and biennial Work and Budget Programmes have fully integrated the ecosystem approach and its vision.
    - Ecosystem approach and GES targets are being streamlined into the regulatory and policy instruments at the regional level.
    - Work has been undertaken to assess the existing regional measures and identify potential new/updated measures to achieve GES. On the basis of these results, the process has been initiated to develop the main elements for the preparation of 6 new/updated Pollution Reduction Regional Plans.

The CPs have also been guided on how to streamline EOs and GES into their updated LBS National Action Plans.

Mr Antoniadis further explained that at COP18, the Contracting Parties to the Barcelona Convention adopted a governance mechanism to ensure the efficient and coordinated implementation of the Ecosystem Approach Roadmap. They established the Ecosystem Approach Coordination Group consisting of MAP Focal Points, together with three specific correspondence groups, (on GES and targets: COR GEST, on monitoring: CORMON and on economic and social analysis, COR ESA), composed

of national experts designated by the Contracting Parties, invited experts and respective MAP components. Since 2008, seven (7) Ecosystem Approach Coordination Group Meetings have taken place to review the progress made and validate different outputs for consideration by the MAP Focal Points meetings and COP. Additional external resources were mobilised to support the different steps of the implementation of the Ecosystem Approach Roadmap and the Programme of Work:

- EU funded EcAp-MEDI (2013-2015) supported the development of ecological objectives, operational objectives, GES definition and targets.
- EU funded EcAp-MEDII (2015-2018) is supporting the development of IMAP and the initial phase of its implementation, including national monitoring programmes, science policy interface aspects and related information system.
- EU funded Marine Litter MED project is supporting concrete measures at pilot sites to achieve marine litter reduction targets. This project is also supporting the work on the candidate marine litter indicator 24.
- GEF funded "Implementation of Ecosystem Approach in the Adriatic Sea through Marine Spatial Planning" (GEF-Adriatic Project), whose goals include to contribute to the development of national Integrated Monitoring Assessment programmes for Albania and Montenegro.

In addition, the project for defining the methodological framework for marine spatial planning, piloted in Boka-Kotorska bay (Montenegro), initiated in 2016 aims to analyse and point out the possibility of using the vulnerability analysis based on ecosystem approach principles.

The Coastal Area Management Plan (CAMP) in Bosnia and Herzegovina, commencing in 2017, is also based to a great extent on Ecological Objectives of the ecosystem approach.

The CO-EVOLVE Interreg project, and its use of indicators of Ecological Objective 8 (Coastal ecosystems and landscapes), is being considered to assess Littoralisation and Urbanisation in the context of sustainable tourism. As the project is based on ICZM and MSP, the EcAp indicators will be taken into consideration as much as possible.

EU funded SEIS project that is supporting the implementation of SEIS national action plans for a number of Contracting Parties.

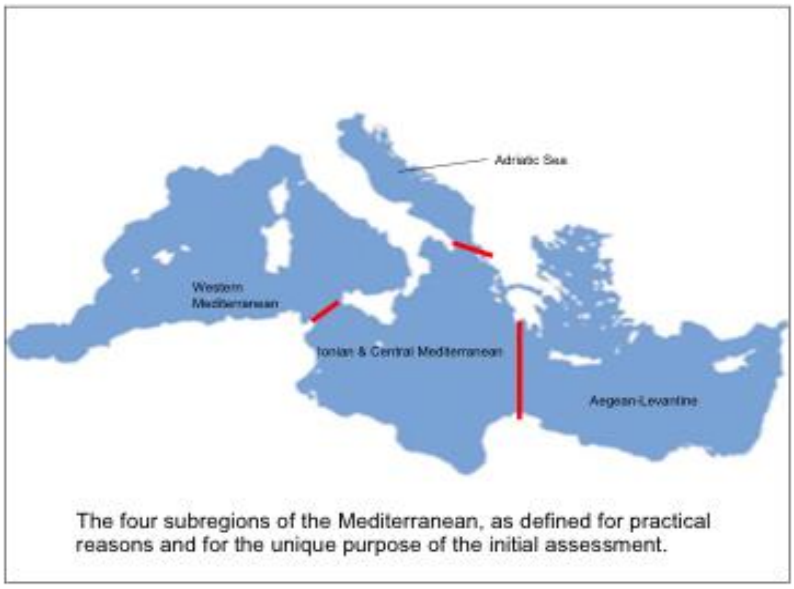
A project to map key marine habitats in the Mediterranean and promote their conservation by establishing Specially Protected Areas of Mediterranean Importance (SPAMIs) (MedKeyHabitats Project) has been implemented by SPA/RAC, in synergy with the EcAp-MEDII project, which further supported Morocco, Algeria, Tunisia and Montenegro to establish a permanent monitoring system in relation to Common indicator 1.

Synergies have been established and strengthened with the relevant work under UN Environment Regional Seas Programme, Global Programme of Action, EU Marine Strategy Framework Directive (EU MSFD), OSPAR, Black Sea Commission and HELCOM. Synergies have been established with several regional projects intended to facilitate the implementation of the EU MSFD. Of major relevance is the establishment of the Marine Litter Regional collaboration Platform comprising over 22 Regional Partners to support the coordinated implementation of the Marine Litter Management Regional Plan in the Mediterranean.

With regard to the management of activities and uses in a transboundary context, Mr Antoniadis highlighted that key challenges include the establishment of common objectives and priorities as well as the gaps in data availability and interoperability. UN Environment/MAP, in line with the ecosystem-based approach, can provide significant support in this direction by establishing region-wide common objectives and GES targets, as well as by developing harmonised national monitoring and assessment programmes, on the basis of region-wide common indicators, and the application of Shared

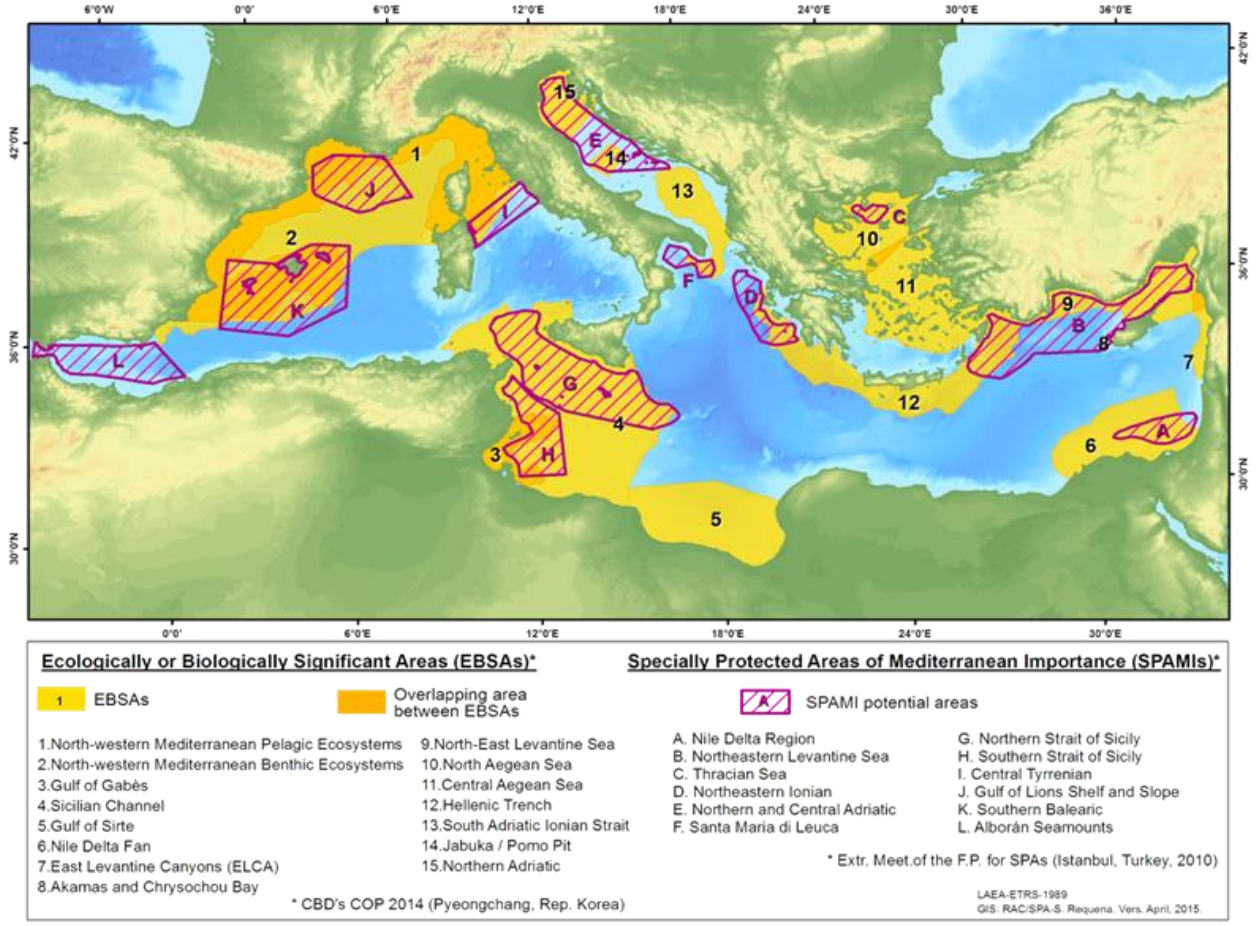
Environmental Information System (SEIS) principles. In line with the Ecological Objectives and GES targets adopted, a sub-regional monitoring pilot study for the Eastern Mediterranean on Non-Indigenous Species is implemented jointly by UN Environment/MAP and GFCM and can be used as a best practice for the implementation of an ecosystem-based approach in a transboundary context, for potential replication.

Anis Zarrouk (SPA/RAC) took the floor to explain the ecosystem-based approach addressed at the level of the Regional Activity Centre for Specially Protected Areas (SPA/RAC) of the Barcelona Convention, in particular focusing on ecological units for effective protection. The Roadmap for the application of the Ecosystem Approach (EcAp) in the Mediterranean has agreed on four Mediterranean sub-regions in order to undertake sub-regional and thematically oriented assessments, needed for the ecosystem-based management approach that the Mediterranean countries have agreed to apply for the region, under the aegis of the Barcelona Convention, in coherence with the European Union Marine Strategy Framework Directive (MSFD). SPA/RAC is part of this process, facilitating the implementation of the EcAp Roadmap mainly in Southern and Eastern Mediterranean countries, with regard to aspects related to marine biodiversity and non-indigenous species.



The four subregions of the Mediterranean, as defined for practical reasons and for the unique purpose of the initial assessment.

Regarding SPA/RAC working experience in transboundary areas, between 2008 and 2014, SPA/RAC has implemented a 3-phase EU-supported project (the MedOpenSea project) aimed at promoting, through the Specially Protected Areas of Mediterranean Importance (SPAMI) system, the establishment of a representative network of Marine Protected Areas in the Mediterranean open seas, including the deep seas; providing scientific ecological information compilation, spatial mapping, legal analyses and stakeholder coordination and negotiation. The first phase of this project (2008-2009) identified 12 priority conservation areas likely to contain sites that could be candidates for the SPAMI List. This work later contributed to the identification and description of Ecologically or Biologically Significant marine Areas (EBSAs) in the Mediterranean region under the CBD (2014). EBSAs aim to provide relevant ecological or biological information to support the Contracting Parties who can take management measures, including the design and establishment of a coherent, representative network of MPAs. It is to mention that 15 Mediterranean EBSAs were included in the CBD Repository (2015).



Christophe Le Visage (WestMED Initiative) then introduced the perspective of the work undertaken by the WESTMED Initiative. He explained that the EU decided to study the opportunity to further develop its actions in the Mediterranean in accordance with the existing strategic initiatives that are promoted by national and international institutions. As a first step, the "WestMed initiative" (2015-2017) explored the potential for marine and maritime cooperation and suggested some priority areas where gaps emerged despite existing support initiatives and structures. Based on these analyses and consultations with the countries concerned, the EU decided to go a step further and set up the Framework for Action, which would need to be supported by an adequate mechanism.

Important institutional initiatives have acknowledged the importance of having a vision for the blue economy for the western Mediterranean and, consequently, have provided their support to the Framework for Action:

- Declaration of the ministers (5+5 format) for the sustainable development of the blue economy in the western Mediterranean (signed at Napoli in November 2017).
- EC Communication (COM(2017) 183 final) to the European Parliament, the Council the European Economic and Social Committee and the Committee of the regions related to the initiative for the sustainable development of the Blue Economy in the western Mediterranean, endorsed by the Council.

This action is driven by the WestMed Steering Committee with a Framework Action Plan and a dedicated roadmap, which should be endorsed by the Ministers (5+5 format) on December 4th, 2018 in Algiers.

Regarding the integration of the ecosystem-based approach in the work of the WestMed Initiative, Mr Le Visage mentioned that the initiative is developed in the policy framework of Blue Economy, which implies a broadly sustainable development based on marine assets. It therefore includes protection and sound management of ecosystems, which are the main asset and heritage of the Blue Economy – even if the objectives of natural heritage protection are, as often, less visible than economic and social objectives.

He argued that "ecosystem-based management" refers to the management of human activities, as we do not manage ecosystems, but rather manage activities that cumulatively impact, harm and often destroy ecosystems. The WestMed Initiative can provide a mechanism for sustainably managing marine activities, environmentally as well as economically and socially, and this way support ecosystem-based management. In particular, WestMed aims to supporting all existing environmental policies in the region, including EU policies (MSFD, etc.) and Mediterranean policies and strategies -including EcAP-, which contribute to implementing the ecosystem approach.

Ameer Abdulla (IUCN WCPA) explained how the IUCN World Commission of Protected Areas (WCPA) has contributed to address the ecosystem-based approach through task forces and guidelines on:

- High Seas, Areas Beyond National Jurisdiction (ABNJ).
- Biodiversity Beyond National Jurisdiction (BBNJ).
- Other Effective Area-based Conservation Measures.

Furthermore, members of the Commission have been active participants in all regional seas processes to identify EBSAs.

Introducing the discussion on which governance mechanisms are in place or in development to support cooperation for an ecosystem-based management at the protected area level, Ameer Abdulla (UICN WCPA) explained that on an international level a number of mechanisms can be invoked, but each requires national frameworks for governance and cooperation. Some of these international mechanisms include:

- UNESCO inscribed Transboundary Biosphere Reserves.
- UNESCO inscribed World Heritage Serial Sites.
- UN CBD Ecologically and Biologically Significant Areas.
- UN MAP Specially Protected Areas of Mediterranean Importance.

The lesson learned from the global case studies is that it is better to develop areas that can be adequately managed through local resources and capacities, than ambitious "no-take" areas that are just paper parks. Adequate networks of marine managed areas that represent the seven ecoregions of the Mediterranean provide more opportunity for comprehensive management of marine resources than a few individual, unrepresentative, strictly protected marine areas.

Anis Zarrouk (SPA/RAC) explained that there are many complementary governance mechanisms that are meant to support cooperation for ecosystem-based management at the protected area, ecoregions or Mediterranean level:

- At a regional level, the Regional Integrated Monitoring and Assessment Programme (IMAP). At COP19 (Athens, February 2016) of the Barcelona Convention, the Contracting Parties

adopted a novel and ambitious Integrated Monitoring and Assessment Programme and related Assessment Criteria (IMAP). IMAP is a key achievement for the Mediterranean region, as it will enable for the first time a quantitative, integrated analysis of the state of the marine and coastal environment, covering pollution and marine litter, biodiversity, non-indigenous species, coast, and hydrography, based on common regional indicators, targets and Good Environmental Status (GES) descriptions. IMAP describes the strategy, themes, and products that the Mediterranean countries are aiming to deliver, through collaborative efforts in the framework of the MAP Barcelona Convention, during the second cycle of the implementation of the Ecosystem Approach Process in 2016-2021. The ultimate goal is to assess the status of the Mediterranean Sea and coast, as a basis for enhanced action.

- At a national level, the National Integrated Monitoring and Assessment Programme (national IMAPs). In the framework of an EU-supported project (the EcAp-MED II project), SPA/RAC has supported 7 Southern and Eastern Mediterranean countries in developing National monitoring programmes related to biodiversity and non-indigenous species. These national monitoring programmes should be enforced in selected monitoring areas, located in areas under both low pressure (e.g. MPAs, SPAMIs) and high pressure from human activity.
- At a sub-regional level, there is also cooperation in the Ecosystem Approach (EcAp) implementation in the Mediterranean region, like the sub-regional Pilot Study for the Eastern Mediterranean on Non-Indigenous Species, in relation to fisheries implemented in cooperation between the MAP-Barcelona Convention Secretariat and GFCM. Additionally, the GEF Adriatic project "Implementation of the Ecosystem Approach in the Adriatic Sea through Marine Spatial Planning" is a sub-regional project, implemented in Albania and Montenegro and started by the end of 2017. The Project is implemented by UN Environment, executed by the UN Environment/Mediterranean Action Plan in partnership with the Priority Actions Programme Regional Activity Centre (PAP/RAC) and the Specially Protected Areas Regional Activity Centre (SPA/RAC).

It aims to restore the ecological balance of the Adriatic Sea by implementing the Ecosystem Approach (EcAp) and Marine Spatial Planning (MSP). The Specific added value of the project is in providing integration of two key governance frameworks developed under the Barcelona System: Ecosystem Approach and Marine Spatial Planning.

Adding another perspective, Mr Le Visage argued that the existing "top-down" mechanisms (laws, regulations) and "bottom-up" mechanisms (cooperation of local stakeholders) have not been really efficient to date. He argued that "top-down" mechanisms are usually mainly "environmental", meaning that they cannot really influence decisions about economic activities that impact ecosystems. "Bottom-up" mechanisms, on the other hand, are based on consensus, which can be achieved only by accepting many compromises with all local stakeholders, including usually those who threaten or harm the environment. For instance, few or no MPAs are really "ecosystem-based managed", because the regulation of many activities is beyond the control of MPA managers (fisheries, maritime transport, land pollutions…).

Regarding the requested recommendations to support a regional ecosystem-based management of natural resources across countries and for key ecologically important units, Mr Antoniadis concluded with the following recommendations:

- Continue supporting the update and implementation of national monitoring and assessment programmes, compatible with IMAP and its Common Indicators.
- Support collection and submission of more data in a coherent manner and format.

- Continue streamlining GES and related targets into all MAP regional policies (already integrated in Regional Plan on Marine Litter Management and other instruments, and current review of SAP BIO, and Offshore Action Plan).
- Continue supporting implementation of SEIS principles across the Mediterranean.
- Further assess and map inter-linkages between pressures, impacts and states under a DSPIR approach, including cumulative impacts, and ensure synergies with ICZM implementation.
- Ensure that the next QSR (2023 Mediterranean QSR) is fully databased and includes more in-depth analysis on sub-regional specifics.
- Continue working to develop/refine baseline values and thresholds; in this regard promote testing at the sub-regional level (i.e. Adriatic area) to create knowledge to be fed into the regional processes.
- Continue and strengthen partnerships with key regional and global actors (i.e. GFCM, ACCOBAMS, EEA, etc.).
- Further promote the implementation of joint monitoring programmes.
- Continue the process initiated to develop new/updated Regional Plans in view of achieving/maintain GES in the Mediterranean, while also taking into account socioeconomic elements.

Mr Zarrouk suggested the following recommendations on the same topic:

- Establish a comprehensive coherent network of well managed Marine Protected Areas (MPAs) and Other Effective Area-Based Conservation Measures (OECMs) in the Mediterranean, accomplishing the qualitative and quantitative aspects of CBD Aichi Target 11. A Roadmap to guide the efforts of the Contracting Parties and regional/international organisations has been set for the region in the framework of the Barcelona Convention (COP 19, Athens, February 2016).
- Run consistent region-wide assessments on a regular basis in order to assess the status of the Mediterranean ecosystems and the achievement of Good Environmental Status (GES). The Mediterranean Quality Status Report (MED QSR) developed and compiled in the framework of the Barcelona Convention EcAp Roadmap is an important and innovative development for achieving this objective.
- Encourage and enhance synergy, transboundary cooperation, best practices and experience exchange among the countries bordering the Mediterranean basin.
- Support and provide national and sub-regional training/meetings to build capacity and share experiences on biodiversity Monitoring, management plan/strategies based on EcAp to ensure standardised methodologies and comparable data.
- Provide and maintain online regional platforms/databases to share data on marine biodiversity, interaction with human activities… (MAMIAS, MAPAMED…).

Finally, Mr Abdulla argued in favour of supporting a regional ecosystem-based management of natural resources across countries and for key ecologically important units:

- The heterogeneity of the geomorphology of the coastal and pelagic areas has led the Mediterranean to evolve to a high degree of diversity and endemism of species and habitats. Given this high variance it is important to utilise an Ecosystem or EBM approach that recognises the 7 different ecoregions in the Mediterranean as the appropriate units and scales for planning and management.
- The heterogeneity of social resilience / vulnerability and values in ecoregions has not been assessed and is of critical importance in order to tailor management actions to the

vulnerabilities, needs and capacities of local communities and national governance frameworks.

- Protect (designate as no-take) at least 10% of each of the ecoregions, but preferably 30%, while minimising social cost by using decision support and reserve design optimisation tools.
- Since MPAs frequently include important and iconic ecological and social values, ensure that management around MPAs is effective and robust in order to minimise impacts originating beyond the boundaries of MPAs.

The last topic up for discussion was the "operationalisation" of the ecoregion concept, for which the following opinions were provided:

- Mr Zarrouk explained that the ecoregion concept could be operationalised by setting up sub-regional cooperation mechanisms and programmes. These could be research programmes, transboundary collaboration programmes among national institutions in charge of the marine environment conservation, management and sustainable use, capacity building and exchange programmes, and others. For this purpose, a coherent and realistic timeline for their implementation should be set up, taking into consideration the several constrains of the contracting parties that border on the ecoregion identified. The action to undertake is to be shared by, to the extent possible, enhancing collaboration and supports within the ecoregion neighbour's countries, particularly if there is an imbalance on the logistical and financial resources available for implementation. In general, this is the SPA/RAC approach for helping Mediterranean countries fulfil their obligations under the Barcelona Convention and its Protocol concerning Specially Protected Areas and Biological Diversity.
- Mr Le Visage argued that he did not see value in building new, specific governance schemes at the scale and level of ecosystems (such as "ecoregions"), shaped based on ecosystems or ecological units. He argued that it would result in another "layer" of environmental governance, not connected to real governance, meaning the decision bodies where economic and social decisions are taken. According to him, the way forward is to bring ecosystem management at the highest level in development policies. The UN framework of Sustainable Development Goals (SDGs) is an adequate framework for evaluating operational management, as it includes all kinds of objectives: economic, social and environmental, without any hierarchy.

Mr Abdulla argued that ecoregions in the Mediterranean may be too large to completely manage, and therefore priority areas that are smaller and have garnered both political and technical consensus should be used. EBSAs and SPAMIs should be capitalised on as they have been identified as priority areas for protection and management through a scientific and consultative process that has received political consensus from the contracting parties of the UNEP MAP Barcelona Convention. These areas (EBSA's and SPAMI's) represent the 7 ecoregions well and include pelagic, transboundary habitats.

After a round of discussions and interactions with attendees, the session came to a close and Dania Abdul Malak (ETC-UMA) -Coordinator of Project PANACeA- took the floor to close the Workshop. Ms Abdul Malak summarised the some of the key points addressed during the Workshop and the conclusions emerging from a very rich discussion (as described in section 3.2 of this document) and thanked all contributors and participants for a very productive meeting.

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DECLARATION

Ecosystem-based approaches for biodiversity protection and management

A Consensus Statement towards understanding and managing transboundary and cumulative impacts in Mediterranean Ecosystems

Brussels, December 2018

Representatives of European and Mediterranean institutions active in biodiversity protection and management science, practice and policy, meeting on 4 and 5 December 2018 on the occasion of the event "Ecosystem-based approaches: benefits for people and nature" and the public hearing with Members of the European Parliament on "Mediterranean Ecosystems in Danger: Enhancing EU policy response", supported by the SEARICA group in Brussels, acknowledged the following:

- The Mediterranean region is globally known for its rich coastal and marine biodiversity and fosters important and unique habitats and species, many of which are endemic or globally endangered.

- Coastal and marine biodiversity in the Mediterranean is heavily threatened by habitat degradation and loss as a result of unsustainable human activities including the overexploitation of natural resources. This is exacerbated by increasing pollution, unsustainable fisheries and extreme climatic phenomena, such as increases in temperature and sea level rise.

- Ensuring the Good Environmental Status of Marine Biodiversity in the Mediterranean is currently an EU priority in European waters. The UN Regional Sea Convention for the Mediterranean, through its Action Plan, is key to supplementing EU initiatives as it mobilises non-EU countries to use global tools and targets to manage and conserve biodiversity. Using both is vital to maintaining functional natural ecosystems across borders and ensuring continuity in the provision of ecosystem services on which local livelihoods and local economies in the Mediterranean depend.

- Existing Protected Areas (PAs) are potentially a powerful tool for effective biodiversity conservation and natural resource management if properly designed, managed, funded and enforced.

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- The current ecological network of Mediterranean coastal and marine protected areas as it stands needs to be reinforced through technical and financial instruments as well as enhanced human cooperation. This would ensure the adequate maintenance of marine ecosystem functions and biodiversity, given the insufficient protection, management and representativity of habitats and species and limited long-term monitoring plans for existing protected areas.

- Mechanisms to ensure and enhance the socio-ecological resilience of Mediterranean coasts, seas and communities are necessary to manage impacts beyond Protected Areas or national boundaries. Such mechanisms must be linked to participatory public consultation and integrated decision-making where key actors, namely local communities, regional and national authorities, and civil society, have ownership of natural resources and play a major role in the protection and co-management of their biodiversity and ecosystems.

- Effective clearing mechanisms are required to assign relevance, build synergies, integrate methodologies, and channel the results of scientific research to practitioners and policy-makers working on biodiversity protection.

- The coordinated compilation of data generated through ongoing scientific efforts, and effective collaboration with existing data aggregation initiatives should be encouraged and pursued.

And decided to adopt a holistic, integrated, ecosystem-based and cross-cutting approach for the conservation and management of the coastal and marine environment and to support collaborative mechanisms, tools and actions according to the following:

1. The current state of biodiversity is dire and human use of natural resources is not sustainable in the Mediterranean region.

2. New marine protected areas (MPAs) should be designated in underrepresented habitats and the integrity and management of existing ones should be strengthened and ensured using principles of ecological network design and best practices management sharing.

3. Local community co-management is a powerful tool for participatory decision-making that needs to be empowered for enhanced decentralised governance of biodiversity and natural resources.

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4. Multiple pressures on the Mediterranean Sea from different sectors yield cumulative impacts that undermine biodiversity and ecosystem integrity, structure, and function, thus impeding their sustainability and resilience beyond geopolitical borders, and even reaching into protected areas.

5. Working beyond protected areas and national boundaries is necessary to address transboundary mobile species conservation and impacts such as pollution, fishing, and climate change and requires the use of ecoregional planning approaches and units that account for multiple hierarchical scales to reach a Good Environmental Status.

6. Using spatial units of management and protection with distinct ecological functions where critical processes such as ecological connections are strongest require better policies and tools reflecting the transboundary nature of sea life for an effective management and to ensure the persistence of natural resources and ecosystem services.

7. A regionally accepted ecoregional planning unit and platform designed upon geopolitical and scientific consensus is essential. Ecoregional planning and management will encompass multiple country commitments across the Mediterranean, together with macro-regional strategies.

8. Ecologically and Biologically Significant Areas, transboundary jurisdictions developed under the Convention of Biological Diversity and the Mediterranean Action Plan and that have the consensus of Contracting Parties, are an underutilised platform that can be used as key planning approach for ecosystem-based management across EU and non-EU countries in the Mediterranean. Understanding and managing these units and their connectivity is key for proper Ecosystem Functioning of cross-sectoral and integrative mechanisms in order to preserve Mediterranean natural resources through the involvement of society at large.

Written in Brussels by the Interreg Med PANACeA partnership

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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

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[Biodiversity Platform]

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Biodiversity Protection Community

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