

10th Meeting of the Ecosystem Approach Coordination Group

Istanbul, Türkiye, 11 September 2023

Agenda Item 3: Ecosystem Approach Roadmap Evaluation of Implementation and Renewal

Review of Implementation of the Ecosystem Approach Roadmap

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Note by the Secretariat

The Contracting Parties, with their Decision IG. 25/19 on the Programme of Work and Budget for 2022-2023 (Antalya, Türkiye, 7-10 December 2021), requested the Secretariat to undertake an evaluation of the implementation of the Ecosystem Approach Roadmap and identify gaps and needs for each of the Roadmap's steps against the vision and objectives, taking into account recent developments at global and regional level (PoW 2022-2023 Activity 5.1.2 deliverable (a)).

The Secretariat engaged an independent regional expert to undertake the evaluation of the Ecosystem Approach Roadmap (Decision IG.17/6 - COP 15, Almeria, Spain, 15-18 January 2008) together with an analysis of recent developments at global and regional level relevant to EcAp and IMAP, which are presented to the present Meeting as Information Documents (UNEP/MED WG.567/Inf.4 and UNEP/MED WG.567/Inf.5 respectively), in close consultation with the MAP Executive Coordination Panel. These documents have been also presented as Information Documents to the Integrated CORMON Meeting held in Athens, Greece, on 27-28 June 2023.

The present document provides an Executive Summary of the aforementioned independent evaluation of the Ecosystem Approach Roadmap, building on its main findings and outcomes, and highlighting key achievements, gaps and recommendations per each of the seven steps of the Roadmap.

List of abbreviations and acronyms

ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
BC/BAC	Background (Assessment) Concentrations
BV	Baseline values
CBD	Convention on Biological Diversity
CCI	Candidate Common Indicators (relatively to IMAP)
CI	Common Indicator (relatively to IMAP)
COP	Conference of the Parties
COR ESA	Correspondence Group on Economic and Social Analysis
CORMON	Correspondence Group on Monitoring
CP	Contracting Party
CRF	Common Regional Framework
DD/DS	Data Dictionaries /Data Standards
DPSIR	Drivers-Pressures-State-Impacts-Responses
EcAp	Ecosystem Approach
EcAp CG	Ecosystem Approach Coordination Group
EAC	Environmental Assessment Criteria
EC	European Commission
EIA	Environmental Impact Assessment
EO	Ecological Objective (used for IMAP)
EU	European Union
GEF	Global Environment Facility
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
ICZM	Integrated Coastal Zone Management (EU or UNEPMAP Protocol)
IMAP	Integrated Monitoring and Assessment Programme
INFO/RAC	Information and Communication Regional Activity Centre
LBS Protocol	Land-Based Sources Protocol
MAP	Mediterranean Action Plan
MED POL	Mediterranean Pollution Assessment and Control and Control Programme
MED QSR	Mediterranean Quality Status Report
MCPAs	Marine and Coastal Protected Areas
MSFD	Marine Strategy Framework Directive
MSP	Marine/Maritime Spatial Planning
MSSD	Mediterranean Strategy for Sustainable Development
MTS	Mid-Term strategy
NAP	National Action Plan
NIS	Non-indigenous species
OECMs	Other Effective area—based Conservation Measures
OO	Operational Objectives (Relative to IMAP)
OWG	Online Working Groups
PAP/RAC	Priority Actions Programme Regional Activity Centre
Post-2020 SAPBIO	Post-2020 Strategic Action Programme for the Conservation of Biodiversity and Sustainable Management of Natural Resources in the Mediterranean Region (2021)
PoW	Programme of Work
REMPEC	Regional Marine Pollution Emergency Response Centre

List of abbreviations and acronyms (continued)

SAP	Strategic Action Plan
SAPBIO	Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (2003)
SEIS	Shared Environmental Information System
SoED	State of the Environment and Development in the Mediterranean
SoER	State of the Mediterranean marine and coastal Environment
SPA/RAC	Specially Protected Areas Regional Activity Centre also RAC/SPA
SPI	Science-Policy Interface
TDA	Trans-boundary Diagnostic Analysis
ToR	Terms of Reference
TV	Threshold values
UN	United Nations
UNEP/MAP	United Nations Environment Programme/Mediterranean Action Plan
WFD	Water Framework Directive (EU)

Introduction

1. By adopting Decisions IG. 17/6 (COP 15, 2008), IG. 20/4 (COP 17, 2012) and IG. 21/3 (COP 18, 2013), the Contracting Parties to the Barcelona Convention and its Protocols agreed to act for gradual implementation of the ecosystem approach at regional, sub-regional and national level with the objective of attaining and maintaining Good Environment Status (GES). Much progress has been accomplished since 2008 in integrating the ecosystem approach in policies and implementing the backbone of the Mediterranean ecosystem approach, the Integrated Monitoring and Assessment Programme (IMAP).
2. The EcAp roadmap implementation was evaluated with regard to the objectives of each of the seven roadmap's steps, at regional level and, when appropriate, at sub-regional and national levels. **Error! Reference source not found.** below, outlines the evaluation of the status of implementation of the 7 EcAp Roadmap steps as defined in Decision IG.17/6, COP 15, 2008, and the main identified gaps and recommendations. The developed version of the evaluation is presented in Information Document (UNEP/MED WG.567/Inf.4).
3. The evaluation shows that at regional level, the EcAp Roadmap has been implemented overall successfully. Definition of an ecological vision for the Mediterranean with strategic goals allowed the development of 11 corresponding Ecological Objectives. Associated Operational Objectives, Common Indicators (CIs) and target levels were developed for 9 and are effective for 8 of the 11 Ecological Objectives (EOs). The CIs of EO 11 are currently being tested, those of EO 4 are in the process of being defined and those of EO 6 are currently going through approval process. Important ecosystem properties, and assessment of ecological status and pressures have been identified at regional and sub regional levels and communicated through numerous documents. Revision of existing monitoring programmes for ongoing assessment have been completed in line with the EcAp roadmap and the Integrated Monitoring and Assessment Programme (IMAP) requirements at regional and sub-regional levels, and targets are regularly updated. Relevant action plans and programmes have been reviewed in the same way, and new ones are in line with the Ecosystem Approach.
4. Some EcAp roadmap steps have not yet been totally implemented especially at national level.
5. The identification of important ecosystem properties and assessment of ecological status and pressures is in progress at national level, though not yet completed. Knowledge acquisition on important ecosystems and habitats is essential at national scale to ensure a well-planned and implemented IMAP including for its coherence with Integrated Coastal Zone Management (ICZM) and Marine Spatial Planning (MSP). The application of Strategic Environmental Assessments (SEA) and Environmental Impact Assessment (EIA), which are significant tools to support the implementation of ICZM principals, requires spatial assessment of important ecosystems and knowledge of their properties, ecological status and vulnerability, and pressures they undergo on a national scale. UNEP/MAP Secretariat and components have collated available information and data transmitted by the Contracting Parties (CPs) to identify important properties and assess the ecological status and pressures at a degree of precision that is sufficient for a regional Mediterranean scale, but data quality remains in some cases insufficient for a finer, national scale.
6. IMAP is considered not sufficiently implemented at national level to allow an adequate corresponding reporting from the CPs. Progress is underway, but such an ambitious monitoring programme requires more efforts to bring national regulations, policies and monitoring programmes into compliance with IMAP. Training and capacity building have been well developed by UNEP/MAP and its components to support the implementation of national IMAPs, and needs to be continued. This will also contribute to increase reporting of CPs with valid or compliant data. The current reporting rate in terms of number of CPs reporting, and number of CIs for which data has been submitted needs to be improved.

Main findings of the evaluation

7. The EcAp roadmap objectives could be updated taking into consideration mitigation of climate change impacts on Mediterranean ecosystems. Further, developing an ecosystem objective related to climate change impacts on ecosystems, could be considered by associating different existing or upcoming CIs and therefor creating a transversal EO.

8. At regional level, attention should be given to the fact that EO 4 (Marine food webs) and EO 6 (Sea-floor integrity) operational objectives, indicators and targets, which are currently under development, be defined in relation to EO 1 (Biodiversity) and EO 3 (harvest of commercially exploited fish and shellfish). Also, 4 Candidate Common Indicators (CCIs) have updated guidance factsheets and monitoring protocols that could be agreed on in particular CCI 25 that has been tested in a pilot project.

9. With support of UNEP/MAP Secretariat and its components, it is recommended that additional efforts be invested by the CPs to identify important ecosystem properties and assess ecological status and pressures at a national scale.

10. In parallel, consistent efforts should be deployed to increase the reporting of CPs regarding IMAP. The following elements could contribute to increase CPs' reporting flow and data quality:

- Additional training workshops for quality-assured data and reporting.
- An evaluation to identify the needs and obstacles of CPs to better implement IMAP could perhaps orient towards a more effective support by UNEP/MAP to lift specific critical barriers to IMAP implementation.
- Centralising information online in a practical way (such as the access to the online MED QSR) by regrouping all the current operational objectives, targets for EOs and also data dictionaries and data standards, threshold values, assessment criteria, guidance factsheets and guidelines and monitoring Protocols for the indicators of all EOs (including EO 3) would be useful for the CPs. Also, underlining relations between IMAP CIs and National Action Plans requests, for example under LBS Protocol, would also probably be helpful for CPs to better implement and integrate IMAP and Protocols' requests.
- Availability of a centralized and streamlined reporting system is crucial. In consequence, IMAP Info System needs to be continuously updated as it is currently. Moreover, tools allowing assessments at different scales and data visualisation through, for example, maps for spatial changes and diagrams for temporal evolution could be developed perhaps in cooperation with other regional entities and integrated into the Info System. Such diagrams are needed to communicate.

11. Assessing environmental status, attaining and maintaining GES will need more specific and effective measures especially along the Mediterranean coastal areas where Land Sea Interactions (LSI) are important. Marine Spatial Planning appears of particular interest, taking in account ICZM and LSI, it is a policy that should use IMAP indicators in an integrated way. Furthermore, ecosystem-based MSP is currently considered for the deep Mediterranean Sea¹. The interrelation between the coastal population, land and marine ecosystems is particularly important for the Mediterranean.

12. Socio-economic aspects, blue and circular economy could also be further integrated in a renewed EcAp Roadmap policy.

¹ Manea, E., Bianchelli, S., Fanelli, E., Danovaro, R., & Gissi, E. (2020). Towards an Ecosystem-Based Marine Spatial Planning in the deep Mediterranean Sea. *Science of The Total Environment*, 715, 136884. doi: [10.1016/j.scitotenv.2020.136884](https://doi.org/10.1016/j.scitotenv.2020.136884)

13. Table 1. Below summarizes the evaluation of the status of implementation of each EcAp step with a color coding.

Green colour	Completed fully
Orange colour	Completed over 50%
Pink colour	Completed at less than 50%.

EcAp steps	Achievements	Implementation	Elements for discussion, gaps and recommendations
Step 1	<p>During COP 15 the Decision IG.17/6 (COP 15) endorsed by the CPs in 2008, the vision is defined as “A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse for the benefit of present and future generations”.</p> <p>The definition of the ecological vision is recalled in the Decision IG. 20/4 (COP 17, 2012)</p> <p>Following the Decision IG.17/6, the COP decisions relative to action plans, regional plans, frameworks, strategies, programmes, protocols, guidelines as well as projects in relation with conservation and management of the Mediterranean Sea involving UNEP/MAP or one of its components, are in line with this vision.</p> <p>The MAP Medium Term Strategies adopted in 2016 (MTS 2016-2021) and 2021 (MTS 2022-2027) include visions that are aligned with the EcAp vision.</p>	Regional	Several points could be discussed such as integrating in the “vision” ecosystem resilience to climate change, the fact that this is the definition of GES at regional level, the concept of sustainability and eventually integrate a horizon in terms of time/date.

<p style="text-align: center;">Step 2</p>	<p>The strategic goals have been defined and endorsed by the CPs with Decision IG.17/6 (COP 15, 2008) and are the following:</p> <p>a. 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.</p> <p>b. 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.</p> <p>c. To prevent, reduce and manage the vulnerability of the sea and the coasts to risks induced by human activities and natural events.</p> <p>EcAp strategic goals have been taken in consideration in new or updated protocols, action plans and frameworks adopted during COPs 15 to 22. Some of the most prominent are:</p> <ul style="list-style-type: none"> - The Integrated Coastal Zone Management (ICZM) Protocol (Decision IG.18/04) - The associated ICZM Action Plan (2012-2019) (Decision IG.20/2), - The Conceptual Framework for Marine Spatial Planning (Decision IG.23/7), - The Common Regional Framework (CRF) for Integrated Coastal Zone Management (Decision IG.24/5) - The Regional Plan on Marine Litter Management in the Mediterranean in the framework of Article 15 of the LBS Protocol, - The Regional plans on Urban Wastewater Treatment and Sewage Sludge Management and on Marine Litter Management in the Mediterranean (Decision IG.25/8 and Decision IG.25/9) The Strategic Action Programme Post-2020 SAPBIO (Decision IG.25/11) - Core themes and programmes included in the MTS (2016-2021) 	<p style="text-align: center;">Regional</p>	<p><u>Some elements for discussion:</u></p> <ul style="list-style-type: none"> ✓ The goals could be more clearly formulated in particular goal (a). ✓ What is understood by “good ecological status” under goal (a)? Ecological status refers to the Water Framework Directive (WFD) for Contracting Parties which are European Union (EU) Member States and could be therefore unclear. This should be replaced in future strategic goals development by the term Good Environmental Status that has been used in EcAP and IMAP. ✓ Ecosystem recovery needs actions, therefore “allow recovery” in goal (a) could be replaced by “favour recovery” ✓ Climate change mitigation could be specifically mentioned in goal (c).
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EcAp steps	Achievements	Implementation	Elements for discussion, gaps and recommendations
	<p>(Decision IG.22/1) and MTS (2022-2027) (Decision IG.25/1) contribute to approach EcAp strategic goals.</p>		
<p style="text-align: center;">Step 3</p>	<p>In Decision IG. 20/4, this step was further defined as “undertaking an initial assessment to determine priority issues, information availability as well as gaps that need to be filled”.</p> <p>At regional and sub-regional level this step has been achieved and regularly updated by documents prepared by the Secretariat and UNEP/MAPs components with the support of EcAp Coordination Group, CORMONs and thematic Focal Points and the contribution of the Contracting Parties and other contributors. A number of documents have contributed to the completion of this step including among others the following:</p> <ul style="list-style-type: none"> • The Mediterranean Sea Biodiversity: state of the ecosystems, pressures, impacts and future priorities (2010) • Fisheries conservation and vulnerable ecosystems in the Mediterranean open seas, including the deep seas (2010) • The Initial Integrated Assessment of the Mediterranean Sea and Coastal Areas (2011). <p>In these first documents, a certain number of gaps had been identified and UNEP/MAP worked to fill-in key knowledge gaps that had been identified concerning the lack of knowledge on marine and coastal biodiversity in the following documents.</p> <ul style="list-style-type: none"> • The State of the Mediterranean Marine and Coastal Environment 2012 (SoER MED 2012). • Scoping study for the assessment of the costs of degradation of the Mediterranean 	<p>Regional</p>	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> ✓ Knowledge gaps still exist in terms of spatial distribution, biodiversity, ecosystems functioning. ✓ Mapping of species and even habitats is patchy and not centralized. ✓ There is a lack of taxonomic skills for some groups in some countries as well as interdisciplinary approaches. ✓ Datasets and information are dispersed and need to be centralised. ✓ Data homogeneity and accessibility needs to be improved. ✓ Mapping spatial distribution of pressures would help the assessment and understanding of cumulative impacts effects on ecosystems. <p><u>Recommendations:</u></p> <ul style="list-style-type: none"> ✓ Mapping efforts should be made to obtain a vision at the Mediterranean scale of essential/vulnerable Mediterranean habitats/species/ecosystems and anthropogenic pressures.
		<p>Sub-regional</p>	
		<p>National</p>	

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	<p>marine ecosystems.</p> <ul style="list-style-type: none"> • Economic and social analysis of the coastal and marine waters in the Mediterranean, characterization and impacts of the Fisheries, Aquaculture, Tourism and recreational activities, Maritime transport and Offshore extraction of oil and gas sectors. • The UNEP/MAP document Marine Litter assessment in the Mediterranean (2015). • The first Quality status Report for the Mediterranean in 2017, the 2017 Med QSR was endorsed by Decision IG .23/6 (COP 20). The report is based on the Ecological Objectives that have been defined and the IMAP Common Indicators building on existing data and contributions from CPs, organized in three clusters (i) Pollution and Litter, (ii) Biodiversity and Fisheries, (iii) Coast and Hydrography. Cross-cutting issues constitute the last part of the report and national case studies are presented in the Annex I. Decision IG. 23/6 pointed out several gaps and recommendations to successfully deliver the following 2023 MED QSR. • The 2020 the State of the Environment and Development in the Mediterranean, SoED 2020. Two documents supplement the report The Summary for Decision Makers and The Key Messages. The Key Messages and Summery for Decision Makers were endorsed by the CPs during COP 21 in 2019 (Decision IG.24/4). • The Study on trends and outlook of marine pollution from ships and activities and of maritime traffic and offshore activities in the Mediterranean (2021) • The Mediterranean 2023 Quality Status Report is in preparation by UNEP/MAP Secretariat and components in collaboration with the Contracting Parties, building on 		

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	<p>the 2023 MED QSR Roadmap and Needs Assessment (Decision IG. 24/4, COP 21, 2019).</p> <p>Specific collaborative projects have contributed to better identify important ecosystem properties, status and identify pressures at regional, sub-regional and national scales to fill in thematic or geographic.</p> <p>An inventory of all the spatial information available and accessible at Mediterranean level on Posidonia meadows, coralligenous and cave habitats at national level was undertaken by SPA/RAC. The collection of available data and its aggregation following established criteria (scale, habitat types following the updated Reference List of Marine Habitat Types for the Selection of Sites to be Included in the National Inventories of Natural Sites of Conservation Interest in the Mediterranean) was finalised. A national consultation will be organized soon to get feedback from the Contracting Parties to the Barcelona Convention and to validate the data. The Production of the distribution maps of Posidonia meadows, coralligenous and cave habitats will be ready and available on the Mediterranean biodiversity platform by the end of 2023. A paper on the elaboration and available maps and the distribution of the marine key habitats is being prepared to be submitted to peer journal.</p> <p><u>At sub-regional level</u> Four reports on the “Identification of important ecosystem properties and assessment of ecological status and pressures to the Mediterranean marine and coastal biodiversity” for each sub-region, namely, the Adriatic Sea, the Ionian Sea and Central Mediterranean, the Aegean Sea-Levant Sea and Western Mediterranean were presented at the 10th meeting of the Focal</p>		

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	<p>Points for SPAs in Marseille, France, in 2011 (UNEP(DEPI)/MED WG 359/Inf.10; Inf.11; Inf.12; Inf.13). These reports summarize the knowledge transmitted by the national focal points and experts concerning their country.</p>		
<p style="text-align: center;">Step 4</p>	<p>COP 17 adopted a set of 11 Ecological Objectives based on Article 18 of the Barcelona Convention and in line with the agreed ecological vision and strategic goals for the Mediterranean under the ecosystem approach (Decision IG. 20/4).</p> <p>The development of these ecological objectives were based on the initial assessment report (UNEP(DEPI)/MED WG.363/Inf.21) and were aligned as appropriate with the 11 descriptors of EU MSFD.</p> <p>The following 11 Ecological Objectives with operational objectives and proposed indicators were defined in Decision IG. 20/4: EO 1. Biodiversity, EO 2. Non-indigenous species, EO 3. Harvest of commercially exploited fish and shellfish, EO 4. Marine food webs, EO 5. Eutrophication, EO 6. Sea-floor integrity, EO 7. Hydrography, EO 8. Coastal ecosystems and landscapes. EO 9. Pollution, EO 10. Marine litter, EO 11. Energy including underwater noise</p>	<p style="text-align: center;">Regional</p>	<p><u>Recommendations:</u></p> <ul style="list-style-type: none"> ✓ It is recommended to carry on and strengthen as appropriate coordination and cooperation with main regional and global instruments and processes in relation to the Ecological Objectives, including EU MSFD, GFCM and others. ✓ Interrelations between EOs could be developed (e.g., EO 1 and EO 6, EO 1 and EO 3) ✓ It is worth perhaps considering the creation of a transversal Ecological Objective on resilience capacity of marine ecosystems to climate change. It could be based on parameters and indicators (perhaps refined) already monitored or planned to be monitored in IMAP for other EOs. ✓ Studying the impact of climate change and ocean acidification on GES and threshold values already defined could help understand marine and coastal biodiversity resilience in front of climate change impacts.

<p style="text-align: center;">Step 5</p>	<p>UNEP/MAP in synergy with the EcAp governance bodies have further defined Ecological Objectives (EOs) by determining operational objectives, indicators, GES definitions and targets for 9 EOs, the 3 remaining EOs are at various stages of development.</p> <p>COP 17 endorsed Decision IG. 20/4, adopting 11 Ecological Objectives (EOs) each with a set of Operational Objectives (OO) and indicators. Therefore, operational objectives have been defined for all 11 EOs.</p> <p>COP18, adopted through Decision IG. 21/3, an integrated list of indicators, GES definitions and related targets for Operational Objectives corresponding to 7 of the 11 Ecological Objectives: EO 1, EO 2, EO 5, EO 7, EO 8, EO 9, EO 10. Indeed, although COP 17 (Decision IG.20/4) adopted indicators for all the Operational Objectives, it was decided to focus, during the initial phase of Ecosystem Approach Roadmap implementation, on those ecological objectives for which data availability and methodological advancements would allow their effective monitoring. Therefore, it was considered that the definitions of GES, indicators and related targets for EO 3, EO 4, EO 6 and EO 11, were then not yet ready for effective monitoring.</p> <p>Cooperation with other regional bodies was developed to ensure common monitoring and assessment procedures in relation with EO 1, EO 3 and EO 11. For EO 1, cooperation was developed with GFCM for commercial species and ACCOBAMS for cetaceans. The development of EO 2 on NIS was done in collaboration with the Joint Research Centre (European Commission's science and knowledge service). Cooperation is developing for EO 1 with GFCM for commercial species and ACCOBAMS for cetaceans.</p>	<p>Regional</p>	<p><u>Gaps:</u></p> <ul style="list-style-type: none"> ✓ Operational Objectives, GES definitions, Common Indicators and related targets have not yet been adopted for EO 4 and EO 6. ✓ EO 11 “energy including underwater noise”, and its two candidate indicators, is still at an initial phase of development. ✓ EO 1 does not cover certain habitats that would need to be assessed such as pelagic and deep-sea habitats. ✓ CI 3 to CI 5 concerns seabirds, mammals and reptiles. Selected fish and cephalopods could be integrated. ✓ Definitions of Operational Objectives, Common Indicators, assessment criteria, related targets, fact sheets etc. for the IMAE Ecological Objectives are dispersed. No synthetic updated document or internet platform regrouping these elements was found. ✓ Threshold values are still needed for several indicators. <p><u>Recommendations</u></p> <ul style="list-style-type: none"> ✓ EO 6 “seafloor integrity”, its indicators and targets etc. would need to be effective and measurable rapidly. Seafloor is continuously impacted by anthropogenic activities which need to be assessed especially with the perspective of the development of offshore installations (e.g., wind farms). ✓ It is recommended to consider developing common indicators between EO 1 and 6 for benthic habitats. ✓ EO 4 “foodwebs” is a complex matter and scientific knowledge on ecosystem functioning and foodwebs is limited. Therefore the development of this EO 4 should take the time needed. It is an integrative subject that needs further knowledge to be efficiently developed. It is recommended not to consider the development of EO 4 as a priority in the actual state of knowledge and first allocate efforts to other main concerns. ✓ The development of marine traffic in the Mediterranean Sea calls for the effective assessment of anthropogenic underwater energy and noise. With the acquisition of knowledge on the subject through the EU funded QUIETMED 2 project, EO 11 CCIs should be rapidly developed towards common indicator and implemented.
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<p>The EO 3, common indicators, GES and targets have been developed by GFCM and the assessment results are to be provided to UNEP/MAP for the integrated assessment. The development of EO 11 with support also from the EU funded QUIETMED 2 project is followed by UNEP/MAP, SPA/RAC and ACCOBAMS and pilot monitoring activities have taken place to validate the two Candidate Common Indicators (CCI).</p> <p>A list of IMAP Common and Candidate Indicators (23 Common Indicators and 4 additional Candidate Common Indicators to be tested) has been adopted by COP 19 through the Decision IG. 22/7, covering most of the Ecological Objectives (with the exception of EO 4 and EO 6 for which conditions were not mature enough to ensure monitoring feasibility), with the aim to serve as the basis for the integrated monitoring and assessment at regional and national levels.</p> <p>Regarding Ecological Objective 4 on marine food webs, an ongoing desk review is being conducted to assess available data sources, best practices, and methodologies in the Mediterranean region. The purpose of this review is to inform the development of EO4 and provide insights into monitoring and assessment of marine food webs. The review is expected to be completed by the end of 2023.</p> <p>Currently GES definitions, related targets and common indicators are being developed by SPA/RAC for EO 6. Within SPA/RAC Programme of work (2022-2023) and with the support of the ABIOMMED EU-funded project and the MASE funds, the first draft of the EO6 proposal was delivered in September 2022 and was reviewed by the experts of the biodiversity OWG on benthic habitats and discussed</p>		<ul style="list-style-type: none"> ✓ The habitats assessed and monitored in EO 1 are limited and should be developed in particular for deep-sea and pelagic habitats. ✓ Within EO 1 (Biodiversity), CI 3 to CI 5 are related to seabirds, mammals and reptiles. These CIs could be applied to selected species of fish and cephalopods as for the MSFD. Further cooperation with GFCM could help identify the most pertinent species. This would also lead to a further integration of EO 1 with EO 3. ✓ Threshold values should be defined for CIs missing TV in particular EO 1 benthic habitats, EO 3, EO 7, EO 8 (at national level), EO 9 and upcoming EO 6. ✓ It is recommended to centralise all the informative documents related to EOs and Indicators - Operational Objectives, Common Indicators, assessment criteria, related targets, threshold values, fact sheets etc. - for the IMAP Ecological Objectives and keep the documents updated so that policy makers, stakeholders and scientists may easily access this basic information. ✓ How can climate change concerns be assessed and monitored? This question needs to be developed with climate change specialists.
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EcAp steps	Achievements	Implementation	Elements for discussion, gaps and recommendations
	<p>during an online meeting (9 December 2022) and the CORMON meeting on biodiversity and fisheries (Athens, Greece, 9-10 March 2023).</p> <p>More detailed information on specifications of Eos and Indicators, including on guidance factsheets, threshold and baseline values etc. are provided in the full evaluation presented in the Information Document UNEP/MED WG.567/Inf.4.</p>		

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Step 6	<p>The MAP Integrated Monitoring and Assessment Programme (IMAP) adopted by COP 19 (Athens, Greece, 2016) with Decision IG.22/7 is being implemented at regional, subregional and national levels as appropriate, in collaboration with GFCM and ACCOBAMS for specific EOs. The IMAP implementation covers the period from 2016 to 2021. IMAP is a key achievement for the Mediterranean region, as it enables integrated analysis of the state of the marine and coastal environment, covering pollution, marine litter, biodiversity, non-indigenous species, coast, and hydrography, based on common regional indicators, targets and Good Environmental Status (GES) descriptions throughout all the Contracting Parties.</p> <p>The development of such an ambitious monitoring programme was progressive to ensure feasible and validated indicators and define appropriate target levels. In addition, UNEP/MAP components in collaboration with GFCM and ACCOBAMS and EU Joint Research Centre (JRC) as well as EcAp governance, have defined and pursue definitions of: Data Dictionaries and Data Standards, monitoring and assessment scales, assessment criteria, threshold and baseline values as well as guidance factsheets and guidelines and monitoring protocols for many Common Indicators.</p>	Regional	<p><u>Gaps</u></p> <ul style="list-style-type: none"> ✓ Implementation of IMAP at national level is not yet complete. Efforts are still needed to revise or implement monitoring programmes in accordance with IMAP indicators. ✓ IMAP implementation at national level needs to be strengthened with more resource mobilization, capacity building, guidance and technical assistance. ✓ CP reporting on IMAP implementation needs to be strengthened. <p><u>Recommendations</u></p> <ul style="list-style-type: none"> ✓ Assessment of the difficulties encountered by the CPs in IMAP implementation and reporting could help being even more efficient in supporting the CPs. ✓ Cooperation and sharing best practices to address specific gaps could be developed. ✓ Efforts should be continued to integrate IMAP in ICZMs, MSP and LBS. ✓ Submission and management of data stemming from CIs needs to be facilitated and spatialized. IMAP Info System should continue being maintained and upgraded also with the integration of assessment tools. Sufficient means should be allocated to this work, and permanent funds are needed to ensure maintenance and development once the system is functional. ✓ SPI could be more integrated and strengthened in programmes to enrich decision-making, and communication towards the society. ✓ Sharing experience from demonstration projects and approaches that have been successful or of interest (e.g., the grid/table and scoreboard methods, work on MSP in the North Adriatic region) could help implement

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	<p>Work is ongoing to refine, adapt and update these standards and develop new ones for other CIs and test Candidate Common Indicators. In line with Decision IG. 21/3, IMAP was first to be implemented in an initial phase between 2016-2019, during which the existing national monitoring and assessment programmes were to be integrated, in line with the IMAP structure and principles and based on the agreed common indicators. This implied in practice that the existing national monitoring and assessment programmes be reviewed and revised as appropriate so that national implementation of IMAP could be fulfilled in a sufficient manner (see Decision IG. 22/7).</p> <p>Considerable efforts (technical, capacity building and financial support) have been developed by the UNEP/MAP Coordinating Unit and Components to</p>	<p>Sub-regional</p>	<p>harmonised monitoring and assessment programmes at national scale.</p>

EcAp steps	Achievements	Implementation	Elements for discussion, gaps and recommendations
	<p>implement (update or develop) IMAP at national level through the support of the EU-funded EcAp MED II, EcAp MED III, GEF Adriatic, Marine Litter MED II, IMAP MPA projects and GEF MedProgramme child project 1.1 and MASE funds (Ministry of Environment and Energy Security of Italy).</p> <p>Accessible through the IMAP Info System, Data Standards and Data Dictionaries are available for the 11 Common Indicators from the three clusters, for which data may be uploaded by the CPs. These have been agreed on by the CORMONs, the MED POL Focal Points and the SPA/BD Thematic Focal Points and updated in 2020-2021 taking in account the remarks from the CPs.</p> <p>New Data Standards (DS) and Data Dictionaries (DD) for an additional 7 Common Indicators have been/ are going to be integrated into the IMAP Info system, extending the initial reporting of 11 selected CIs to a total of 18 CIs. (CIs 3, 4, 5, 18, 19, 20 and 24).</p> <p>The final implementation of the new data flows for CIs 3, 4, 5, 18, 19, 20 and 24 into the IMAP Info System took place during the first semester of 2023.</p>	<p>National</p>	

EcAp steps	Achievements	Implementation	Elements for discussion, gaps and recommendations
Step 7	<p>Streamlining of the Ecosystem Approach principles, IMAP and GES targets into relevant instruments, strategies, action plans and guidelines at a regional level has been undertaken with success. Contracting Parties have been also supported in mainstreaming EcAp principles and GES into national strategies and action Plans, e.g. the updated NAPs in the framework of the LBS Protocol.</p> <p>The following Protocols and associated action plans and frameworks have been updated and include EcAp, IMAP, indicators and GES targets.</p> <ul style="list-style-type: none"> The amended Annex to the Protocol for the prevention and elimination of pollution of the Mediterranean Sea by dumping from ships and aircraft or incineration at sea (Dumping Protocol), taking in consideration the ecosystem approach for achieving good environmental status (GES) of the Mediterranean Sea and coast and integrates Ecological Objectives (e.g., levels of underwater noise for the characteristics of dumping). 	Regional	<p><u>Recommendations</u></p> <ul style="list-style-type: none"> ✓ Development and updating of National Action Plans (i.e. on pollution from land-based-sources, on species and habitat conservation, etc.) should continue and be reinforced with support from the Secretariat and relevant Components. Some RAPs seem little transposed to national scale and should be enhanced. Work at sub-regional scale should be further considered, as for example has been the case for subregional oil contingency plans. ✓ It is recommended to develop/strengthen exchanges and increase cooperation between UNEP/MAP and other partners, especially GFCM. Although cooperation between SAPBIO and GFCM is strong concerning bycatch of vulnerable species, more attention could be given to developing cooperative projects concerning e.g., fisheries and NIS. ✓ Interrelations could be reinforced between the Regional Action Plans to increase an ecosystem and integrated approach.
	<ul style="list-style-type: none"> The amended Annexes I, II and IV to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol) integrate key elements of the EcAp Roadmap and GES. Annexes II (List of endangered species) and II (List of species whose exploitation is regulated) to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA BD Protocol) were amended four times since the EcAp roadmap was adopted enriching the list of species. The Protocol on Integrated coastal zone 		

<p>management in the Mediterranean (ICZM Protocol) was adopted in 2008 and refers to the ecosystem approach. The Ecosystem Approach is especially pertinent and necessary in the management of coastal zones where multiple human activities and pressures on ecosystems cumulate. As such, EcAp appears as the guiding principal to the ICZM Protocol and the related planning of land and sea based marine activities, therefore including MSP implementation.</p> <ul style="list-style-type: none"> • A number of new/updated Regional Plans have been adopted since the adoption of the EcAp Roadmap, integrating as appropriate EcAp, IMAP and GES aspects, i.e. the Regional Plan on Marine Litter Management in the Mediterranean in the Framework of Article 15 of the Land Based Sources Protocol (Decision IG. 21/7) and amendments (see Decision IG. 25/9); the Regional Plans on Urban Wastewater Treatment and Sewage Sludge Management in the Framework of Article 15 of the Land Based Sources Protocol (Decision IG.25/8); the Action Plan for the conservation of coralligenous and other calcareous bioconstructions (updates in Decision IG. 22/12); the Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea (Annex III, Decision IG.22/12), the updated Action Plan for the Conservation of Marine and Coastal Bird Species listed in annex II to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (Decision IG. 21/4 updated by Decision IG. 23/8 and currently updated again in view of submission to MAP Focal Points meeting in September 2023 and COP 23 in December 2023; the Regional Strategy for the conservation of monk seal in the Mediterranean (updated in Decision IG. 24/7, Annex II), the 	<p>National</p>	
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<p>Action Plan for the conservation of marine turtles in the Mediterranean (updated in Decision IG. 24/7, Annex III); the Action Plan for the Conservation of Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea (updated in Decision IG.24/7 Annex IV); the Action Plan for the conservation of marine vegetation in the Mediterranean Sea (updated in Decision IG. 24/7, Annex V); the Action Plan for the conservation of cetaceans in the Mediterranean Sea (updated in Decision IG. 22/12 and Decision IG. 25/13, Annex I); the Action Plan for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea (Dark Habitats Action Plan) (Decision IG. 25/13, Annex II); the Regional Action Plan on Sustainable Consumption and Production in the Mediterranean (2016-2021) (Decision IG. 22/5); the Mediterranean Offshore Action Plan (Decision IG. 22/3) etc.</p> <ul style="list-style-type: none"> • The Mediterranean Strategy for Sustainable Development 2016-2025 (Decision IG. 22/2), specifically covered in its action 1.1.2 the implementation of the EcAp Roadmap to achieve healthy marine ecosystems and conserve marine biodiversity. • The Post-2020 Strategic Action Programme for the Conservation of Biodiversity and Sustainable Management of Natural Resources in the Mediterranean Region (Post-2020 SAPBIO) (Decision IG. 25/11) was elaborated taking into account the conclusions and recommendations of the evaluation of SAPBIO on the period 2004-2018 and the guidance elements developed by SPA/RAC. Post-2020 SAPBIO integrates the EcAp and IMAP requirements especially relative to EO 1 (see outcome 2, 3 and 4) 		
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<p>and EO 2, 4 to 11 (see outcomes 1 and 5). The planned actions cover many needs for a better implementation of IMAP at national level including inventories and cartography of key marine habitats and assessing their status in coastal and offshore waters, update national monitoring programmes and achieve regular reporting.</p> <ul style="list-style-type: none"> • The Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021) (Decision IG. 22/4) updated with the Mediterranean Strategy for the Prevention of, Preparedness, and Response to Marine Pollution from Ships (2022-2031) (Decision IG. 25/16) relates with EO 2, EO 9 and EO 10 and streamlines ecosystem approach implementation at all levels. • The ICZM Action Plan and a Common Regional Framework were adopted respectively in 2012 and 2019, as well as a Conceptual Framework for MSP in 2017 which are totally integrating the ecosystem approach, IMAP ecological objectives, indicators and GES targets. ICZM is an essential tool for EcAp implementation in coastal areas. • National Action Plans on NIS, biodiversity and marine habitats are prepared considering the IMAP priorities in some CPs. In 2018-2019 and 2020-2021, SPA/RAC supported the elaboration of the NAPs concerning species introduction and invasive species in Libya, Türkiye, Lebanon, Cyprus, Malta and the preparation of the NAPs for the conservation of Marine Turtles in Algeria, Morocco, Libya, Lebanon, Spain and Tunisia. A National strategy to reduce illegal trade of marine turtles in Tunisia has been elaborated and adopted since 2019. With the assistance of SPA/RAC, Montenegro elaborated a NAP on coralligenous species, Morocco, Tunisia and Türkiye elaborated 		
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EcAp steps	Achievements	Implementation	Elements for discussion, gaps and recommendations
	<p>NAPs on marine vegetation and coralligenous. The NAP for the conservation of the coralligenous species in Lebanon was prepared and nationally adopted with the SPA/RAC assistance.</p> <ul style="list-style-type: none"> Contracting Parties have been also supported by UNEP/MAP – MED POL to prepare and adopt updated National Action Plans/Programmes of Measures on Pollution and Marine Litter, which streamline as appropriate elements derived from EcAp Roadmap and GES targets. National Action Plan for the implementation of the Regional Strategy for Prevention of and Response to Marine Pollution from Ships (2016-2021) was completed by Egypt; similar plans had been developed by Albania, Montenegro, Morocco, Tunisia, and Türkiye. The implementation of the Barcelona Convention and its Protocols is facilitated by technical Guidelines, prepared in close coordination with the Contracting Parties. These guidelines clarify and provide guidance on technical aspects of the implementation of the Protocols and Regional Plans and streamline the ecological objectives and GES targets. Guidelines for NAPs are also pertinent to implement national IMAPs. These guidelines are regularly updated. 		