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Agenda Item 4: 2023 MED QSR Roadmap and Needs Assessment

2023 MED QSR Roadmap and Needs Assessment

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Note by the Secretariat

At their 19th Ordinary Meeting (COP 19, Athens, Greece, 9-12 February 2016), the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) adopted a novel and ambitious Integrated Monitoring and Assessment Programme and related Assessment Criteria (IMAP) (Decision IG. 22/7) based on region-wide Ecological Objectives and Common Indicators.

In line with the above-mentioned decision and in the context of implementing the Ecosystem Approach Roadmap adopted by the Contracting Parties to the Barcelona Convention and its Protocols in 2008 (Decision IG.17/6), the UNEP/MAP system delivered during the biennium 2016-2017, the first ever Quality Status Report for the Mediterranean (2017 MED QSR).

Decision IG. 23/6 on the 2017 MED QSR (COP 20, Tirana, Albania, 17-20 December 2017) has underlined the gaps of the pioneering 2017 MED QSR and requested the Secretariat to make all possible efforts to overcome them and recommended general directions towards a successful 2023 Mediterranean Quality Status Report (2023 MED QSR) and prepare in the first year of the biennium 2018-2019, a Roadmap accompanied with a Needs Assessment on how to improve data collection to address knowledge gaps and strengthen the capacities of the system (2023 MED QSR Roadmap).

The 87th Meeting of the Bureau considered and welcomed the 2023 MED QSR Roadmap and Needs Assessment that was thereafter presented to the members of the EcAp Coordination Group for written consultation and consequently concluded by the end of 2018, as requested by COP 20.

In this regard, the Contracting Parties were asked for their feedback and Malta and Montenegro have provided the Secretariat with their suggestions. Malta suggested that including the minimal number of datasets required in the table of the Roadmap is premature, given that the Common Indicator Guidance Factsheets are still being discussed and are subject to regular updates, and the Contracting Parties are still in the process of implementing their monitoring programmes according to the IMAP requirements. It added that ideally the number of datasets required for each Ecological Objective are decided under the CORMON process in cooperation with Contracting Parties, such that the optimal level of monitoring required reflects the Contracting Parties' practical experience in carrying out their monitoring programmes. Montenegro would like to emphasize a further need for optimal integration of the 2023 MED QSR Roadmap within the PoW 2020-2021 in order to be able to successfully deliver the 2023 Mediterranean Quality Status Report. It added that the needs of the Contracting Parties related to implementation of the IMAP and 2023 MED QSR Roadmap milestones have to be supported by planning appropriate technical and financial means.

The present paper was presented in the Joint Meeting of the Ecosystem Approach Correspondence Group on Marine Litter Monitoring and ENI SEIS II Assessment of Horizon 2020/National Action Plans of Waste Indicators (Podgorica, Montenegro, 4-5 April 2019). It represents the Secretariat's approach for the development of the 2023 MED QSR Roadmap in line with the above-mentioned COP 20 mandate, which is being integrated into the proposal of the UN Environment/MAP Programme of Work for 2020-2021 currently under development. As such it details the main processes and milestones and the related outputs and timelines.

List of Abbreviations / Acronyms

BACs	Background Assessment Criteria
COP	Conference of the Parties
CORMON	Correspondence Group on Monitoring
DPSIR	Driving Forces-Pressures-State-Impacts-Responses
EACs	Environmental Assessment Criteria
EcAp	Ecosystem Approach
EO	Ecological Objective
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
GIS	Geographic Information System
IMAP	Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
MED QSR	Mediterranean Quality Status Report
MoU	Memorandum of Understanding
NIS	Non-Indigenous Species
SEIS	Shared Environmental Information System
UNEP/MAP	United Nations Environment Programme/Mediterranean Action Plan

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I. From the 2017 MED QSR to the 2023 MED QSR

1. In the context of implementing the Ecosystem Approach Roadmap adopted by the Contracting Parties to the Barcelona Convention and its Protocols in 2008 (Decision IG.17/6), the UN Environment/MAP system delivered during the last biennium 2016-2017, the first ever Quality Status Report for the Mediterranean (hereinafter referred to as 2017 MED QSR, <https://www.medqsr.org/>). This is an assessment product based on region-wide Ecological Objectives and Common Indicators that is built upon existing data and complemented with inputs from numerous diverse sources.

2. Underlining the importance of this major and innovative MAP achievement, Decision IG. 23/6 on the 2017 MED QSR (COP 20, Tirana, Albania, 17-20 December 2017) pointed out several gaps (as laid out in Chapter II of this document) and requested the Secretariat “to prepare in cooperation with the Contracting Parties through the Ecosystem Approach governance structure, in the first year of the biennium 2018-2019, a Roadmap accompanied with a Needs Assessment on how to improve data collection to address knowledge gaps and strengthen the capacities of the system (the QSR 2023 Roadmap). To this aim, priority activities needed to successfully deliver the 2023 Mediterranean Quality Status Report shall be identified for inclusion in the Programme of Work”.

3. Following up on Decision IG.23/6, the Bureau at its 85th meeting (Athens, Greece, 18-19 April 2018) requested “that the Roadmap and Needs Assessment for the 2023 MED QSR, prepared in close collaboration with the EcAp Coordination Group, is presented at its 86th meeting”.

4. The 87th Meeting of the Bureau considered and welcomed the 2023 MED QSR Roadmap and Needs Assessment that was thereafter presented to members of the EcAp Coordination Group for written consultation, and consequently concluded by the end of 2018, as requested by COP 20.

5. The present paper describes the Secretariat’s approach for the development of the 2023 MED QSR Roadmap in line with the above-mentioned COP 20 mandate. As such, it contains a narrative section describing findings of the initial assessment of key needs and the proposed milestones and steps needed to address such identified needs. Details are then contained in tabular form of the initial 2023 MED QSR Roadmap with Vision, Main Processes and Milestones and related Outputs (with proposed timelines), including the necessary involvement of the Ecosystem Approach governance mechanism.

6. The current document presenting the 2023 MED QSR Roadmap, which is being integrated into the proposal of the UN Environment/MAP Programme of Work for 2020-2021 currently under development, will be shared with the EcAp Coordination Group members in the CORMON meetings of all four clusters, Biodiversity, Pollution Monitoring, Marine Litter Monitoring and Coast and Hydrography for their information.

II. Assessment of key needs to address knowledge gaps and strengthen the capacities of the system

7. Decision IG. 23/6 on the 2017 MED QSR pointed out several gaps and recommended the following general directions in order of successfully deliver the 2023 MED QSR:

- i. Harmonization and standardization of monitoring and assessment methods;
- ii. Improvement of availability and ensuring of long time series of quality assured data to monitor the trends in the status of the marine environment;
- iii. Improvement of availability of the synchronized datasets for marine environment state assessment, including use of data stored in other databases where some of the Mediterranean countries regularly contribute;

- iv. Improvement of data accessibility with the view to improving knowledge on the Mediterranean marine environment and ensuring that Info-MAP System is operational and continuously upgraded, to accommodate data submissions for all the Integrated Monitoring and Assessment Programme (IMAP) Common Indicators.

8. To specifically address the above-mentioned main directions in the development of the 2023 MED QSR, the Secretariat and MAP Components have reviewed the state of play of national implementation of IMAP, focusing on best practices and challenges faced with regards to different aspects of its implementation at national level, and initiated a discussion on a number of cross-cutting issues and region-wide challenges, that are crucial for ensuring the effective integrated GES assessment. An initial needs assessment on how to improve data collection to address knowledge gaps and strengthen the capacities of the system was developed in the “Progress Report on the implementation of Decision IG.22/7 on the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria” (UNEP/MED WG.450/3). This document was presented at the Regional Meeting on IMAP Implementation: Best Practices, Gaps and Common Challenges (10-12 July, Rome, the Rome Meeting) which resulted in valuable lessons learned, conclusions and recommendations. They are guiding the work of the Secretariat towards the more detailed needs assessment to be provided cluster by cluster and discussed in the upcoming CORMON meetings and within respective Ecosystem Approach Governance Structure.

9. The following issues will be presented for review and in-depth discussion in the upcoming CORMON meetings:

- a) Better interlinkages between Activities/Pressure/Impacts and clarification of definition of impacts noting that such a definition should primarily focus on biodiversity;
- b) Clarifications of definitions of integration and aggregation rules. In this respect the Rome Meeting requested the Secretariat to make the necessary changes in document UNEP/MED WG. 450/3 opting for giving the priority at this stage of IMAP implementation to the work on geographical aggregation and assessment scaling rather than integration.

10. Consistent with the outcome of the Rome meeting, and acknowledging the achievements, lessons learned, and challenges faced during the current initial phase of IMAP implementation at national level, the following elements will be submitted for discussion at the upcoming CORMON meetings:

- a) Efforts for coordinated national IMAP implementation should be enhanced, notably through technical proposals;
- b) Tailored capacity-building activities should be established to fill the gaps clearly identified during IMAP national trainings, including on technical capacities, software, monitoring protocols, human resources needed, etc.;
- c) Further efforts are necessary by the Contracting Parties to generate more synchronized datasets for assessments (collection of quality assured data in a coherent manner and format and availability of long-time data series to monitor trends);
- d) IMAP compatible Pilot Info-system needs to be finalized to accommodate reporting of IMAP compatible data by the Contracting Parties, with clear distinction between mandatory and optional data;
- e) Monitoring protocols and assessment methods have to be harmonized and standardized, including region-wide harmonized criteria for reference conditions and threshold/ boundary values per assessment area, as appropriate and feasible;
- f) Further development of the risk-based approaches, analytical testing and assessment methodologies, assessment criteria for integrated chemical and biological assessment methods and testing of new

research-proved tools for monitoring the toxic effects, as well as improvement of knowledge on emerging chemicals, are needed;

- g) Testing of the Background Assessment Criteria (BACs) and Environmental Assessment Criteria (EACs) and thresholds application should be undertaken on a trial basis and at regional and sub-regional levels;
- h) Identification and evaluation of marine litter accumulation (stranding fluxes, loads and linkage with specific sources) and hotspots using GIS and mapping systems and modelling tools should be enhanced, including better understanding of transport dynamics and accumulation zones;
- i) Science-Policy Interface should be strengthened, structured and sustained, by supporting the national monitoring programmes, to ensure that ongoing scientific projects can address IMAP national implementation needs;
- j) Cooperation at sub-regional level for Common Indicators, as appropriate, to share best practices and addressing specific gaps within national monitoring programmes should be strengthened;
- k) A continual exchange of best practices should be encouraged and established among thematic experts possibly through on-line communication tools for all three IMAP clusters.

11. Based on the findings of the 2017 MED QSR and related Decision IG.23/6, as well the recommendations of the Rome Meeting, the Secretariat has concluded a coordinated analysis with the involvement of all relevant components on major achievements and gaps of the 2017 MED QSR, priority needs and specific issues to address for each IMAP cluster. Specific recommendations were also coordinated on procedural (including meetings and coordination) needs, based on lessons learnt from the 2017 QSR process, in order to find realistic ways and means for addressing and filling the 2017 MED QSR identified gaps.

12. The outcome of this specific mapping resulted in:

- a) A vision of a better integrated and DPSIR-based Good Environmental Status (GES) assessment of the 2023 MED QSR; and
- b) A short list of key priority needs which need to be addressed in order to achieve this vision, accompanied with the necessary main processes and milestones and related outputs.

13. Based on the outcomes of above steps undertaken by the Secretariat, key priority needs to be addressed towards a DPSIR-based GES assessment of the 2023 MED QSR are as follows:

1. Scale(s) of monitoring, assessment and reporting to be agreed on, to enable comparable data sets assessment;
2. Necessary methodological tools and assessment criteria to be agreed on to allow and promote integrated assessment of GES;
3. Full implementation of IMAP to be achieved, with data generation throughout the Mediterranean;
4. Fully operational SEIS-based IMAP Info System to be put in place to enable timely reporting of the Contracting Parties;
5. Monitoring Protocols and Data Quality Assurance and Quality Control for IMAP Common Indicators are to be made available to guide Contracting Parties;
6. National capacity and knowledge gaps are to be addressed to ensure region-wide coherence and data availability;
7. Regional partners, projects to be able to input process in a coordinate manner;
8. Regular, effective (and more frequent) regional coordination with the Contracting Parties to be put in place.

III. Vision and Milestones to be achieved for a successful delivery of the 2023 MED QSR

14. **Vision: An integrated DPSIR-based GES assessment, developed on consolidated and quality-assured monitoring data sets, reported and processed through an effective IMAP Info System that is interoperable with national and other regional monitoring and reporting networks.**

15. The 2023 MED QSR Roadmap is built around the following phases and processes:

1. Timely negotiation and agreement of Contracting Parties through the Ecosystem Approach Governance Structure at regional (and as appropriate at sub-regional) level on the scale(s) of monitoring, assessment and reporting;
2. Development and agreement of Contracting Parties through the Ecosystem Approach Governance Structure on necessary methodological tools and assessment criteria to allow and promote integrated assessment of GES at the level of Ecological Objectives and to the extent possible, across relevant Ecological Objectives;
3. Full implementation of IMAP-based national monitoring programmes throughout the Mediterranean to enable the region to generate quality assured and real time data during 2020-2022 (at least delivery of two sets of data for each IMAP cluster¹);
4. Delivery and operationalisation of a user-friendly and SEIS-based IMAP Info System to collect and process data produced by IMAP-based national monitoring programmes;
5. Development and implementation of Monitoring Protocols and Data Quality Assurance and Quality Control for IMAP Common Indicators (depending on the nature of Common Indicators, to be developed on regional/sub-regional or national level and discussed, agreed on by the Contracting Parties through the relevant level of the Ecosystem Approach Governance Structure);
6. Continuous support and technical assistance to the Contracting Parties in relation to all the above areas;
7. Outreach to regional partners to provide inputs to the 2023 MED QSR, establishment of solid partnerships and development of a communication and visibility strategy for the 2023 MED QSR;
8. Regular and effective regional cooperation and coordination with the Contracting Parties, through CORMONs, under the guidance of the Ecosystem Approach Coordination Group.

16. Table 1 below details each of the above main processes and milestones of the roadmap, with main outputs and delivery timelines in a table format.

17. The 87th Meeting of the Bureau considered and welcomed the 2023 MED QSR Roadmap and Needs Assessment that was thereafter presented to the EcAp Coordination Group members for written consultation, and consequently concluded by the end of 2018, as requested by COP 20. The CORMON Meetings will follow the recommendations of the Ecosystem Approach Coordination Group in order to further address specific needs and necessary priority actions to deliver the outputs presented in Table 1, specific to their clusters, as provided for by Decision IG.23/6 on the 2017 MED QSR.

¹Noting that in line with consultations throughout the UNEP/MAP system, it is most likely feasible to have at least two data sets in areas of pollution and marine litter and coast and hydrography, while only one data set can be assured for biodiversity and NIS throughout the Mediterranean

Table 1. 2023 MED QSR Vision, Main Processes, Milestones and Outputs

2023 MED QSR Vision:				
An integrated DSPIR-based GES assessment, developed on consolidated and quality-assured monitoring data sets, reported and processed through a fully operational IMAP Info System that is interoperable with national and other regional monitoring and reporting networks				
2017 MED QSR features (starting point)				
<p>This first regional assessment product, based on 23 IMAP common indicators, includes clear findings, conclusions and key messages related to each indicator. Data sources of the assessment include Contracting Parties’ data sets as part of the MED POL data base, other relevant data provided by MAP components and MAP implemented project, and GFCM and other regional sources of data, including projects.</p> <p>Data sets are provided to the extent possible for all common indicators but are incomplete and data availability is limited for the whole region. The assessment is limited in relation to integrated GES assessment (provided, if any, only across Common Indicators of specific Ecological Objectives). The assessment recognizes the need to address interlinkages between pressures/impacts and state of marine environment, but it cannot provide it in detail.</p>				
Decision IG. 23/6 of COP 20 on 2023 MED QSR preparation provides for:				
<ul style="list-style-type: none"> (i) harmonization and standardization of monitoring and assessment methods; (ii) improvement of availability and ensuring of long time series of quality assured data to monitor the trends in the status of the marine environment; (iii) improvement of availability of the synchronized datasets for marine environment state assessment, including use of data stored in other databases where some of the Mediterranean countries regularly contribute; (iv) improvement of data accessibility with the view to improving knowledge on the Mediterranean marine environment and ensuring that IMAP Info System is operational and continuously upgraded, to accommodate data submissions for all the IMAP Common Indicators. 				
MAIN PROCESSES AND MILESTONES				
1. Scales of Monitoring, Assessment and Reporting	2. Integrated assessment of GES	3. Implementation of national IMAPs throughout the Mediterranean	4. IMAP Info System 5. Monitoring Protocols and Data Quality Assurance and Quality Control	7. Outreach and visibility
OUTPUTS				
Analysis for each IMAP cluster on knowledge gaps, with focus on scales of monitoring prepared (mid 2019 - end 2020);	Analysis of interrelations between sectors, activities, pressures, impacts and state of marine environment for each Common Indicators included in the IMAP Pilot Info System prepared (2018-2019);	State of the national implementation of IMAP reported by the Contracting Parties (2018/2019, 2020/2021, 2021/2022);	IMAP information and data sharing policy developed (2019);	Timeline for data-sharing with regional partners defined (2019-2021);

<p>Approaches on scales of monitoring for IMAP Common Indicators included in the IMAP Pilot Info System defined (2019);</p> <p>Scales of monitoring for all IMAP Common Indicators agreed (2021);</p> <p>Scales of assessment products for all IMAP Common Indicators clustered per Ecological Objectives proposed (2021-2022);</p> <p>Assessment criteria/thresholds/baseline values proposed/updated for IMAP Common Indicators included in the IMAP Pilot Info System (2020-2021);</p> <p>Assessment criteria/thresholds/baseline values initiated for all IMAP Common Indicators (2021-2022);</p> <p>Reporting formats adjusted to agreed scales of monitoring and scales of assessment products (2021-2022).</p>	<p>Approaches for mapping the pressures/impacts/status of marine environment for the above IMAP Common Indicators defined (Rome Meeting); (2019-2020);</p> <p>Methodological concept developed and proposed to assess the interrelation of pressures/impacts/status of marine environment (2020);</p> <p>Methodological concept to support better integration of thematic assessment products related to IMAP Common i.e. integration between Ecological Objectives (at national, sub-regional and regional scale) is agreed and tested (2020-2021);</p> <p>Thematic assessment products are prepared (2021-2022);</p> <p>2023 MED QSR delivered (2023);</p>	<p>Minimum 3 sets of data on IMAP Common Indicators (EO5, EO9, EO10) reported by the Contracting Parties (2019, 2020, 2021/2022);</p> <p>Minimum 1 set of data (EO1 and EO2) reported by Contracting Parties (2021/2022);</p> <p>Minimum 2 sets of data (EO7, EO8) reported by the Contracting Parties (2020, 2021/22);</p> <p>Country capacity building trainings organized in line with their needs (2019-2021);</p> <p>Sub-regional/regional workshops and trainings, in areas of common capacity needs and knowledge gaps, organized (minimum 2 per sub-region), (2019-2021);</p> <p>Joint monitoring pilots designed and implemented (minimum 2 in participating countries), (2019-2021).</p>	<p>IMAP Pilot Info system ready to upload monitoring data (end of 2019);</p> <p>Data dictionaries and data standards finalized for all IMAP Common Indicators (mid 2021);</p> <p>IMAP Pilot Info System updated to cover all IMAP Common Indicators (mid-2022);</p> <p>IMAP Info System fully operational enabling the Contracting Parties to report their monitoring data in 2020, 2021 and 2022.</p> <p>Monitoring Protocols drafted for IMAP Common Indicators included in the IMAP pilot Info System; (2018/2019);</p> <p>Quality Assurance and Quality Control schemes in place for IMAP Common Indicators included in the IMAP Pilot Info System (2019-2020);</p> <p>Quality Assurance and Quality Control schemes expanded to cover all IMAP Common Indicators (2021-2022);</p>	<p>Agreements reached with Regional Partners (2020);</p> <p>Communication and visibility strategy for the 2023 MED QSR developed and agreed (2021);</p> <p>Outreach to key partners is undertaken and relevant meetings held (2019-2020);</p> <p>Communication and visibility strategy for the 2023 MED QSR is implemented (2021-2023);</p> <p>2023 MED QSR published in 2 languages and on line available and presented at COP 23.</p>
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8. Effective Regional Collaboration

- CORMON meetings are held (minimum 1/year/cluster between 2019-2022);
- Integrated CORMON meetings are held (minimum 1/biennium 2020, 2022);
- Ecosystem Approach Coordination Group meetings are held (minimum 1/year between 2019-2023);
- Sub-regional expert groups to address monitoring and assessment sub-regional specifics, including scales of assessment products and their integration, are held (minimum 1/biennium for all 4 sub-regions in integrated manner, for all clusters);
- Online expert groups are held for each cluster, to ensure continuous work between CORMON meetings (to be re-established in CORMONs in 2019);
- Bilateral meetings on MoU implementation are held, new MoUs are considered and partnerships with key partners are further strengthened;
- Progress reports are submitted to the meetings of the Bureau of the Contracting Parties, the meetings of the MAP Focal Points and the COPs (2019-2023) for guidance and approval as appropriate.