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Agenda item 4: Progress Achieved regarding the Implementation of the Programme of Work 2018- 2019 related to Land Based Pollution and Governance Themes

Progress of the Implementation of the MAP Programme of Work 2018- 2019 related to Land Based Pollution and Governance Themes executed by MED POL

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List of Abbreviations/Acronyms

BACs	Background Assessment Concentrations
BCRS	Barcelona Convection Reporting System
BCs	Background Concentrations
COP	Conference of the Parties
CORMON	Correspondence Group on Monitoring
DPSIR	Driver, pressure, state, impact, response
EACs	Environmental Assessment Concentrations
EcAp	Ecosystem Approach
ECP	Executive Coordination Panel
EEA	European Environment Agency
ENI	European Neighbourhood Instrument
EU	European Union
GEF	Global Environment Facility
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
GPA	Global Programme of Action
H2020	Horizon 2020
HW	Hazardous Wastes
IMAP	Integrated Monitoring and Assessment Programme
IMELS	Italian Ministry for the Environment, Land and Sea
Info-RAC	Regional Activity Centre for Information and Communication
JRC	Joint Research Centre of the European Commission
LBS Protocol	Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
MOOC	Massive Open Online Course
MoU	Memorandum of Understanding
MPA	Marine Protected Areas
MSFD	Marine Strategy Framework Directive
MSP	Maritime Spatial Planning
MSSD	Mediterranean Strategy for Sustainable Development
MTS	Mid-Term Strategy
NAPs	National Action Plans
NBB	National Baseline Budget
PCB	Polychlorinated biphenyls
PoM	Programme of Measures
POP	Persistent Organic Pollutants
PoW	Programme of Work
PRTR	Pollutant Release and Transfer Register
QSR	Quality Status Report
RACs	Regional Activity Centres
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
SCP/RAC	Regional Activity Centre for Cleaner Production
SDG	Sustainable Development Goals
SEIS	Shared Environmental Information System
SPA/RAC	Regional Activity Center for Specially Protected Areas
TG DATA	Technical Group on Marine Data in relation to MSFD
TG ML	Technical Group on Marine Litter in relation to MSFD
TG NOISE	Technical Group on Noise in relation to MSFD
UfM	Union for the Mediterranean
UNEP	United Nations Environment Programme
WG GES	Working Group on Good Environmental Status in relation to MSFD

I. INTRODUCTION

- A. This report covers the activities and outputs carried out in the period between January 2018 and May 2019. The progress report is composed of a narrative part and three Annexes.
- B. The narrative part highlights the results and progress achieved under the two themes of the Programme of Work 2018-2019 (Governance and Land and Sea-Based Sources of Pollution) executed by MED POL in cooperation with relevant RACs. It also addresses the technical implementation of the LBS, Dumping and Hazardous Wastes (HW) Protocols with particular focus on reporting and marine pollution monitoring
- C. Annex I presents a summary of the status of the information provided in the Reports on Measures taken by the Contracting Parties for the implementation of the technical aspects of Pollution related Protocols and respective Regional Plans in line with Article 26 of the Barcelona Convention and Article 13 of the LBS Protocol, for the period 2016-2017. Annex II includes the 2023 MED QSR Roadmap and Needs Assessment. Annex III presents the status of data submission on marine pollution monitoring by the Contracting Parties in line with Article 12 of the Barcelona Convention, and Articles 8 and 13 of the LBS Protocol and IMAP Decision (IG.22/7).

II. KEY HIGHLIGHTS

Main deliverables for this biennium show an overall achievement of 100% of planned targets for the biennium 2018-2019. Details are hereunder presented:

- a) Main elements for the six new Regional Plans developed including timetable for preparation.
- b) Two new guidelines on marine litter management and control of industrial emissions developed/updated.
- c) Evaluation reports on the status of implementation of ten existing Regional Plans prepared.
- d) Twenty Adopt-a-Beach and Fishing-for-Litter pilot projects implemented in nine non-EU Countries.
- e) Eight waste and twelve industrial emission H2020/NAP indicators, including sub-indicators, developed along with their specifications in the framework of the ENI SEIS II South Support Mechanism Project.
- f) Eight meetings organized, namely the Regional Meeting on Reporting of Releases to Marine and Coastal Environment from Land Based Sources and Activities and Related Indicators; Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (CorMon Pollution); 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 (CorMon Marine Litter); First and Second Regional Meetings of Experts on the Six Pollution Reduction Regional Plans; two Regional Meetings on Marine Litter Best Practices (Izmir, Turkey and Seville Spain); and Regional Cooperation Platform on Marine Litter in the Mediterranean. All meetings reviewed important documents and delivered satisfying results. Some of them were coupled with training and capacity building sessions.
- g) Three projects addressing land-based pollution (ENI SEIS II), marine litter (Marine Litter MED) and monitoring and assessment (EcAp-Med II) successfully implemented.

Main Activities/Outputs

II.1 Overarching Theme: GOVERNANCE

Strategic Outcome 1.1: Contracting Parties supported in the implementation of the Barcelona Convention, its Protocols, Regional Strategies and Action Plans

Governance meetings

1. MEDPOL was represented in all ECP Meetings. The 35th Meeting of the Executive Coordination Panel (ECP) took place in Paris, France (6 June 2018), back-to-back with the celebration of the World Environment Day and the 40th Anniversary of Plan Bleu. The 36th Meeting of the ECP, took place in Split, Croatia (27-28 September 2018) back-to-back with the celebration of the Mediterranean Coast Day and the 40th Anniversary of PAP/RAC. The 37th meeting of the Executive Coordination Panel (ECP) took place in Geneva, Switzerland (9-10 January 2019) and the 38th Meeting of the ECP, in Marseille, France (7-8 March 2019).

2. MEDPOL attended the 14th Meeting of the Compliance Committee that was held in Athens, Greece, on 27-29 June 2018. The Committee discussed, inter alia, the Status of Reporting and the Examination of Reports Received under Article 26 of the Barcelona Convention. It also provided the opportunity for exchanges with compliance mechanisms of other Multilateral Environmental Agreements (MEAs). The Committee also addressed the legal binding nature of Regional Plans adopted under Article 15 of the LBS Protocol and other Regional Actions Plans. MEDPOL is reviewing the reports submitted by the Contracting Parties on measures taken to implement the LBS, Dumping and Hazardous Waste Protocols during the biennium 2016-2017 with a focus on technical aspects of implementation. Annex I to this document present a summary of this analysis. A detailed presentation will be made at MED POL FP meeting end of May 2019.

Resource mobilisation and project implementation

3. MED POL contributed to the development of the GEF funded “Mediterranean Sea Programme (MedProgramme) Enhancing Environmental Security.” MED POL will focus will on:

- a) Land-based sources of hazardous chemicals pollution, namely Persistent Organic Pollutants (POPs) banned under the Stockholm Convention, and mercury banned under the Minamata Convention (Child Project 1.1). Under this component, the project will engage with participating country governments on the provision of disposal options (for POPs) and long-term containment (for mercury); and raising awareness on new POPs in products and mercury in the healthcare sector, through targeted pilot activities to introduce alternatives. It is envisaged these activities will lead to the safe containment of mercury and mercury waste; the environmentally sound management and disposal of PCB containing waste; and decreases in use of new POPs and mercury via a transition to environmentally sound alternatives in the region. Outcome of Child Project 1.1 should lead to a tangible reduction of land-based pollutants in Mediterranean countries, through the disposal of over 2,000 tons of POPs and over 50 tons of Mercury waste. The total budget allocated for Child Project 1.1 is USD 14.25 million. Project expected to start end of 2019/ beginning of 2020.
- b) Updating the Transboundary Diagnostics Analysis (TDA) envisaged as a part of the MedProgramme Component 1: Reduction of land-based pollution in priority coastal hotspots, and measuring progress to impacts, representing the key element of International Waters (IW) component of Child 1.1 Project, with a budget of USD 3 million. Realization of IW component will result in: i) updated TDA including gender assessment; ii) report on progress to impacts; iii) offshore monitoring strategy and identification of 20 locations for the offshore monitoring stations, including piloting IMAP implementation for selected indicators at up to 5 offshore stations; and iv) data sharing policy for the Mediterranean

4. MED POL is also contributing to the development of a project document “Towards achieving the Good Environmental Status of the Mediterranean Sea and Coast through an Ecologically Representative and Efficiently Managed and Monitored Network of Marine Protected Areas” to be jointly implemented with SPA/RAC. The project will contribute to the assessment of MPA effectiveness through IMAP implementation of biodiversity and non-indigenous species, pollution and marine litter and hydrography clusters in an integrated manner. This will be showcased by presenting and highlighting environmental status differences between MPAs and areas which are under high-pressure because of human activity. In so doing, the project will also contribute to the overall status assessment of the Mediterranean Sea and coast and provide support to the beneficiary countries in enhancing their relevant capacities, e.g., through targeted trainings, exchange of specific best practices, and undertaking of pilots in new areas of monitoring of IMAP, in MPAs and outside with a focus on the sub-regional level. Project budget is USD 4 million.

5. MED POL is implementing three EU/EEA funded regional projects related to land-based pollution and SEIS implementation (ENI SEIS II); marine litter management (Marine Litter MED); and monitoring and assessment of pollutants (EcAp-Med II). All these projects will be completed in 2019. The three projects entail components that strengthen participation, engagement, synergies and complementarities among regional institutions. Details of projects outputs and achievements are included in Document UNEP/MED WG.473/Inf.17.

6. In the framework of the Bilateral Agreement signed in 2016 between UN Environment/MAP and the Italian Ministry of Environment Land and Sea Protection (IMELS) and under the leadership of the Coordinating Unit, MED POL is executing several activities addressing marine litter management that represent one of the pillars supported under this Agreement with IMELS through PoW 2018-2019. As per the provisions of the Agreement with IMELS, MED POL is involved in the following activities:

- a) MED POL is contributing to a workshop on the G7 Action Plan to Combat Marine Litter in synergy with the Regional Seas Conventions which will be organized by the French G7 Presidency and the UN Environment/Mediterranean Action Plan - Barcelona Convention Secretariat, in Metz, France, on 5 and 6 May 2019. MED POL also contributed to the first G7 Workshop on Marine Litter held in Rome in April 2017. With substantive support of Plan Bleu, a socioeconomic analysis on marine litter key best practices to prevent/reduce single use of plastic bags and bottles is under preparation. The outline elements and the preliminary version of the report was presented during the Regional Meetings on Marine Litter Best Practices in Izmir, Turkey (9-10 Oct. 2018) and in Seville Spain (8-10 Oct. 2019).
- b) Work is ongoing by MED POL to update the marine litter baseline values as agreed in 2016 by COP19 as well as to prepare a comparative analysis between IMAP and the New GES decision on IMAP Common Indicators related to marine litter, and consequently propose the recommendations to be considered.

Strategic Outcome 1.3: Strengthened participation, engagement, synergies and complementarities among global and regional institutions

7. UN Environment/MAP Secretariat and its MED POL Programme participated in joint meetings with the Secretariat of the Basel/Stockholm Conventions; the Minamata Convention; and UN Environment Chemicals and Health Branch to Geneva in January 2019. The primary objectives of the meetings were to agree on joint activities between MAP and Basel/Stockholm Conventions in view of the signing in November 2018, of an updated MoU between BRS and MAP Secretariats; to discuss potential areas for collaboration between MAP and Minamata Convention for reduction of inputs of Mercury into the Mediterranean; and to exchange information on potential joint activities to be undertaken by MAP and UN Environment/ Chemicals for eliminating/ phasing out of POPs. BRS and MAP agreed on possibility for implementing pilot projects on different aspects of the work of the BRS in the Mediterranean. Projects may include implementation of guidelines, capacity building, and

monitoring and assessment. With regards to the Minamata Convention, MAP indicated that Mercury assessments undertaken by UN Chemicals provide a solid basis for assessing implementation of the Regional Plan for reducing inputs of Mercury into the Mediterranean; and as such joint assessments can be an area for future collaboration with both the Minamata Convention and UN Chemicals.

8. MED POL participated in the 3rd Global round table meeting on PRTRs and the 6th meeting of the working group to the Parties of the Protocol. Both meetings were organized by UNECE in Geneva on 7 to 9 November 2018. MED POL presented MED POL's contribution to implementation of PRTR by the Contracting Parties to the Barcelona Convention including assessment of existing status, obstacles and challenges and future plans to address identified gaps. Future cooperation activities that can be carried out between UNECE Secretariat and the Secretariat of the Barcelona Convention were discussed including joint measures to promote PRTR in the Mediterranean countries in synergy with ongoing efforts to implement the 4th cycle of NBB reporting.

9. In close collaboration with the EU-Funded Project ENI SEIS II - South Support Mechanism, and in coordination with EEA, MED POL developed the H2020/NAP indicators for industrial emissions and waste cluster including marine litter indicators, along with a framework for assessment of these indicators. The output of this project links the Horizon 2020 Initiative to the ongoing evaluation of the updated National Action Plans and Regional Plans Implementation under the LBS Protocol with regards to industrial emissions and marine litter clusters. Assessment findings will be available by end of 2019.

10. UN Environment/MAP and its MED POL Programme co-organized together with OceanCare, in the framework of the GFCM 2018 Fish Forum (Rome, Italy, 10-14 December 2018), the workshop under the title "*Prevention and reduction of marine litter from fisheries and aquaculture and related impacts on marine ecosystems*" (10 December 2018). The workshop considered the issue of marine litter in the Mediterranean but also in the context of the Black Sea. The workshop highlighted the initiatives already underway in the region, building on the best practices of the UN Environment/MAP Regional Plan on Marine Litter Management in the Mediterranean, as well as NGOs initiatives. Case studies and scientific findings, which included experiences from other relevant regions were also presented. Discussions focused on potential ways to strengthen and complement these frameworks/ongoing work from a fisheries perspective in support of the development of the GFCM Marine Litter Adaptation Strategy as foreseen in the GFCM Mid-term Strategy 2017-2020 Output 4.2: "Healthier marine ecosystems and more productive fisheries."

11. MED POL organized the 3rd Meeting of the Regional Cooperation Platform on Marine Litter in the Mediterranean in Izmir, Turkey (October 2018). The meeting was held back-to-back with the Regional Meeting on Marine Litter Best Practices and for first time provided the opportunity to a number of Contracting Parties to interact with the members of the Platform and to exchange views on how to strengthen cooperation and synergies, as well as to further enhance marine litter management in the Mediterranean region.

12. MED POL organized two Regional Meetings on Marine Litter Best Practices in Izmir, Turkey (9-10 Oct. 2018) and in Seville Spain (8-10 Oct. 2019) to promote sharing of marine litter best practices among the Contracting Parties.

13. MED POL actively participated at the meetings of technical bodies (i.e. WG GES, TG DATA, TG NOISE, etc.) established under EU-MSFD to support implementation of the Marine Strategy Framework Directive with the overall objective to ensure further alignment between IMAP and related assessment criteria with the new GES Decision 2017/848/EU. This Decision provides for revised EU wide criteria and methodological standards on GES, as well as specifications and standardized methods for monitoring and assessment. In that respect, MED POL continues to provide substantive contribution to implementation of the ecosystem approach (EcAp) building on the achievements of MSFD implementation, as well as to filling the gaps raised by the 2017 MED QSR.

14. MED POL also participated at the meetings of the EU MSFD Technical Group on Marine Litter (TGML) with the aim of streamlining efforts for marine litter management across the Mediterranean. MED POL participated in the 12th meeting of the MSFD Technical Group on Marine Litter (MSFD TG Litter) held on 26-27 June 2018 in Larnaca, Cyprus). MED POL will attend the upcoming EU MSFD TGML Meeting on Monitoring and Thresholds for MSFD Marine Litter Impact Criteria (Berlin, Germany, 21-22 May 2019).

15. MED POL contributed to the implementation of the Memorandum of Understanding between UN Environment/MAP and the Commission on the Protection of the Black Sea Against Pollution (BSC). Two bilateral meetings were held in Athens, Greece in July 2017 and in Istanbul, Turkey in December 2018. Subsequently, joint work plans were drafted and agreed for 2018 and 2019. The joint work plans address several activities related to different aspects of MED POL scope of work with a special focus on IMAP implementation and on marine litter. Furthermore, MED POL provided technical assistance to BSC during the adoption process of the Regional Action Plan on Marine Litter for the Black Sea Region, as well as for the preparation of the draft version of the Black Sea IMAP.

16. MED POL also contributed to the coordination mechanism established among European Regional Seas for the implementation of the Regional/Action Plan on Marine Litter. To this aim, two meetings were held in November 2017 in Brussels, and in July 2018 in Vrachati, Greece. The latter was hosted by the MAP Secretariat. Both meetings reviewed the status of implementation of the Marine Litter Regional/Action Plans on Marine Litter and related activities and agreed on jointly implemented activities.

Strategic Outcome 1.4: Knowledge and understanding of the state of the Mediterranean Sea and coast enhanced through mandated assessments for informed policy-making

17. MED POL has undertaken the update of the thematic assessments for EO5 and EO9 aiming to update the findings on the status of marine environment in the Mediterranean Sea and contributing to address the main information gaps identified during the QSR 2017 for all IMAP Common Indicators. The updated thematic assessments for pollution are also serving in the preparation of the State of Environment and Development Report 2019 (SoED) in line with the UNEP/MAP Programme of Work for 2018-2019.

18. MED POL is also providing inputs to the preparation of the 2019 SOED. MED POL is a member to the Steering Committee of the 2019 SOED and is assigned the task to elaborate the outline of relevant sections of the report addressing land-based sources of pollution and to review completed chapters related to environmental health aspects. MED POL contributed to the development of the terms of reference for an expert to undertake assessment of land-based pollution for preparation of this chapter. As part of the review process, MED POL is regularly participating in review of completed chapters and participating in video conferences to present MAP's point of view in the final 2019 SOED document.

19. In line with the findings of the 2017 MED QSR and Decision IG.23/6, as well the recommendations of the IMAP Best Practices Meeting laid out in UNEP/MED WG.450/3, MED POL contributed to the 2023 MED QSR Roadmap and Needs Assessment report included in Annex II of the present document. The roadmap provides a vision of a better integrated and DPSIR-based GES assessment for the 2023 MED QSR along with a short list of key priority needs, main processes, and milestones and related outputs.

Strategic Outcome 1.5: MAP knowledge and MAP information system enhanced and accessible for policy-making, increased awareness and understanding

20. MED POL contributed to a regional workshop on Infrastructure and Data Management organized by UN Environment/MAP-INFO/RAC on 4-5 October 2018 in Rome, Italy. The regional workshop provided technical solutions to the countries developing the Regional Infrastructure and

training activities to national experts to collect and share data through the Spatial Data Infrastructure for H2020/NAP indicators and NBB/PRTR Information System.

21. With the support of the EcAp-MEDII Project, MED POL is coordinating with INFO-RAC in developing a fully operative IMAP (Pilot) Info System for the implementation of IMAP, connected to MAP Components' information systems and other relevant regional knowledge platforms, laying down the basis for building a fully operational IMAP Info System by the end of the initial phase of IMAP, as provided for by Decision IG.22/7. This would allow the Contracting Parties to upload their monitoring data according to the proposed Data Standards and Data Dictionaries (DSs and DDs) as provided in document UNEP/MED WG.473/8. For that purpose, MED POL prepared document UNEP/MED WG.473/8 related to data Standards and Data Dictionaries for Common Indicators related to Pollution and Marine Litter with Data Sharing Policy for consideration. The document was presented to the Meeting of CorMon on Pollution Monitoring and CorMon on Marine Litter Monitoring for their review and approval.

22. MED POL data going back to the year 2000 are in the process of being re-uploaded by INFO-RAC with the aim to ensure availability of MED POL online database for inclusion into IMAP (Pilot) Info System. Concurrently, the MED POL online database is undergoing some revisions to allow for ease of accessibility and uploading of some of existing and new data that are expected to be reported by the Contracting Parties in the near future before the IMAP (Pilot) Info System is operational. To that effect, the testing phase of the present MED POL online database has been launched over last quarter of 2018 with the participation of Croatia and Montenegro. However, several problems have been recorded indicating that MED POL's online database may still not be ready for uploading online of monitoring data. In fact, INFO/RAC is presently assessing error reports in order to improve the quality of monitoring data as well as their assimilation into new IMAP (Pilot) Info System with the aim of addressing these issues by mid-2019.

23. In the meantime, the Secretariat/MED POL is in close dialogue with INFO/RAC to ensure that the MED POL online database, which was developed in 2012, is accessible to all the Contracting Parties to report their monitoring data and view their past reports. The Microsoft Access database with data received till second half of 2016 has been uploaded in the MED POL online database, whilst current reporting through the MED POL Metadata Templates as revised by the Meeting of the MED POL Focal Points, Rome, Italy, 29-31 May 2017, will remain operative until the reporting process within IMAP (Pilot) Info System will be launched by INFO/RAC.

Strategic Outcome 1.6: Raised awareness and outreach

24. Under the leadership of the Coordinating Unit, MED POL is facilitating the organization of the Regional Cooperation Platform on Marine Litter in the Mediterranean. The Platform has received increased attention and additional members were introduced during the 2018-2019 biennium, including its successful third Meeting that took place in Izmir, Turkey in October 2018.

25. MED POL contributed during UNEA-4 (Nairobi, Kenya, 15 March 2019) to organizing several side events on marine litter management with inputs received from the implementation of the Regional Plan on Marine Litter Management in the Mediterranean. Most notable was a side event organized by GRID-Arendal and Norway in which the example of the Regional Plan on Marine Litter Management in the Mediterranean was used to showcase how a legally binding instrument can contribute to mobilizing financing for marine litter priorities.

26. The call for the second edition of the Massive Open Online Course (MOOC) on Marine Litter was shared among the Contracting Parties to the Barcelona Convention in 2017. MED POL will be involved in another call for the recently launched MOOC in May 2019.

27. UN Environment/GPA in the framework of the Global Partnership on Marine Litter (GPML) is establishing Regional Nodes on Marine Litter to coordinate, assist, and facilitate the establishment of

cooperation mechanisms at regional level. In that respect, GPA/GPML is financially supporting UN Environment/MAP to establish a Regional/Mediterranean Node on Marine Litter which aims to support the implementation of the Regional Plan on Marine Litter Management in the Mediterranean by enhancing awareness of marine litter prevention and reduction measures and strengthening the exchange of information and knowledge. The Node is expected to be finalized in by end of 2019. MED POL is coordinating this initiative on behalf of MAP.

II.2 Core Theme II: LAND AND SEA-BASED POLLUTION

Strategic Outcome 2.1: Strengthening regional implementation of the obligations under the Barcelona Convention and four pollution-related Protocols, and of programmes of measures in existing relevant Regional Strategies and Action Plans

28. MED POL undertook the evaluation of the implementation of the existing Regional Plans for BOD, POPs, Mercury and Marine Litter. One consolidated draft report will be disseminated to the Countries, highlighting achievements in meeting the legally binding provisions of the Regional Plans and their timetable for implementation. The evaluation report document (UNEP/MED WG.473/14) will be presented to the MED POL Focal Points Meeting (Istanbul, Turkey, May 2019).

Strategic Outcome 2.2: Development or update of new/existing action plans, programmes and measures, common standards and criteria, guidelines

29. COP 20 (Tirana, Albania, December 2017) gave a new mandate to the Secretariat for the development of the main elements of six new/updated Pollution Reduction Regional Plans. In accordance with this mandate, MED POL organized the First Regional Meeting of Experts on the Six Pollution Regional Plans which was held on 20 and 21 November 2018, in Athens, Greece. This Meeting was preceded by preliminary discussions held by an Expert Group Meeting in September 2018 wherein a “Background Document” (UNEP/MED WG.454/Inf.3) was reviewed. The background document served as the starting point of discussions for potential new elements of the Regional Plans. Building on these discussions, a “Preliminary Report” (UNEP/MED WG.454/3) on new elements of the Regional Plans was produced. The First Regional Meeting approved the main elements/outline of the Regional Plans as well as the approach for their identification, including a timetable for their preparation until 2025. The Meeting agreed that the proposed elements of the Regional Plans should be further elaborated and submitted to a Second Regional Meeting of Experts which is expected to review the additional provisions with the view of submitting the main elements to the MED POL Focal Points Meeting for their review and approval. The final proposal of the main elements is presented in document UNEP/MED WG.473/4.

30. The MAP Programme of Work for the biennium 2018-2019 (Decision IG.23/14) requested from the Secretariat to prepare a proposal to update the annexes of the Pollution-Related Protocols to better consider GES and to enhance synergies with the relevant regional and global developments. In line with this mandate and based on the work undertaken during the previous biennium 2016-2017, MED POL undertook the analysis and identified the sections of the annexes of the LBS, Dumping and Hazardous Waste Protocols that maybe amended. This document UNEP/MED WG.473/5 is presented to the MED POL Focal Point Meeting for its review.

31. Work on the development of the Pollutant Release and Transfer Register (PRTR) was undertaken in the framework of the ENI SEIS II Project. With the support of a Regional Expert, MED POL developed updated PRTR Guidelines; prepared draft PRTR Regulation and proposed a methodology for developing and applying national emission factors.

32. MED POL is coordinating the implementation of “Fishing-for-litter” pilots in Lebanon, Egypt, Libya, Tunisia, and Morocco, and “Adopt-a-beach” pilots in Albania, Algeria, Bosnia and

Herzegovina, Egypt, Israel, Lebanon, Libya, Morocco and Tunisia. A number of legal agreements are under finalization with Algeria for the implementation of the AaB and FfL pilots. The implementation of AaB pilots are expected to be streamlined also in Lebanon.

33. MED POL developed regional guidelines addressing marine litter prevention and reduction measures as stipulated for in the Regional Plan on Marine Litter Management in the Mediterranean. The Guideline “Adopt-a-Beach” was reviewed in two Regional Meetings on Marine Litter Best Practices organized in Izmir, Turkey (9-10 October 2018) and in Seville, Spain (9-10 April 2019). The Guidelines will be used for capacity building purposes of personnel from governments, NGOs and civil society to be involved in the implementation of the AaB measures. The proposed Guidelines document (UNEP/MAP WG.473/10) will be presented to the MED POL Focal Points Meeting for their review and approval.

34. MED POL also contributed to the preparation of three more guidelines prepared by SCP/RAC and REMPEC Regional Activity Centers. These include Guidelines to Phase out Single-Use Plastic Bags in the Mediterranean; Operational Guidelines on the Provisions of Reception Facilities in Ports and the Delivery of Ship-Generated Wastes in the Mediterranean; and Guidance Document to Determine the Application of Charges at Reasonable Costs for the Use of Port Reception Facilities or, when Applicable, Application of No-Special-Fee System in the Mediterranean. These guidelines will further promote MED POL’s mandate for implementation of the Regional Plan on Marine Litter Management in the Mediterranean. The three above mentioned guidelines have been prepared in the framework of EU-funded Marine Litter MED Project.

Strategic Outcome 2.3: Strengthening and implementation of marine pollution prevention and control legislation and policies at national level, including through enforcement and integration into sectorial processes

35. At their 20th Ordinary Meeting in Tirana, Albania, on 17-20 December 2017, the Contracting Parties launched the 4th Cycle of the NBB reporting in line with the Guidelines endorsed by the MED POL Focal Points in 2015. MEDPOL initiated the NBB Update data call on 28 August 2018 and provided financial and technical assistance to several Contracting Parties in relation to the implementation of the 4th Cycle of the NBB reporting. Countries to which financial support was provided include Albania, Algeria, Bosnia and Herzegovina, Egypt, Israel, Lebanon, Montenegro, Morocco, Syria, Tunisia and Turkey.

36. In parallel with the 4th National Baseline Budget (NBB) update process, PRTR pilots are under implementation in five partner countries (Egypt, Israel, Morocco, Palestine and Tunisia) to be followed by regional training. Streamlining these training activities with the NBB reporting process is aimed to expedite the work of the Contracting Parties to comply with their legal obligation for reporting under Art.13 of the Land Based Sources Protocol and will enhance their capabilities to finalize the 4th NBB reporting cycle before end of the 2018-2019 biennium.

37. As follow-up for H2020/NAP Indicators, the 2nd ENI SEIS II South Support Mechanism Regional Meeting on Indicators was held on 17-18 April 2018 in Athens, Greece. MED POL coordinated the organization of this Meeting with Plan Bleu Regional Activity Center in collaboration with the European Environment Agency (EEA). The Regional meeting reviewed the proposed indicators’ methodological specifications and reporting processes, including regional infrastructures, and agreed on the final list of H2020/NAP indicators and their specifications. The agreed list of H2020/NAP indicators will enhance MED POL’s ability to follow up on the implementation of the legally binding Regional Plans; hence strengthening its capabilities to follow-up on measures implemented on the national level.

38. MED POL drafted a Small-Scale Funding Agreement (SSFA) between UN Environment/ MAP and the Basel Convention Regional Centre for Training and Technology Transfer for Central Europe in Slovakia (BCRC-Slovakia). The aim of this agreement is to strengthen the effective implementation

of the Basel Convention with regards to fulfilment of joint reporting obligation in selected countries of Mediterranean region (Albania, Montenegro, and Bosnia & Herzegovina). The outcome will provide for enhancing the implementation of NAP measures in the national regulatory systems and in the Countries including "Permitting and Inspection" based on the most recent MAP technical guidelines, with special reference to "lead batteries and e-waste" Guideline.

Strategic Outcome 2.4: Marine Pollution Monitoring and Assessment

1. Progress in IMAP implementation at national level

39. MED POL is coordinating with SPA/RAC and PAP/RAC to support the Contracting Parties to the Barcelona Convention to progress on national implementation of IMAP, building on the existing MAP monitoring programmes and on lessons learnt from other regional and/ or global processes. The initial phase of IMAP implementation from 2016 to date showcases a high level of progress by all Contracting Parties. Specifically, and in accordance with IMAP, Article 12 of the Barcelona Convention which stipulates that all Contracting Parties shall establish pollution monitoring programmes and designate the competent authorities responsible for pollution monitoring, and Article 8 of the LBS Protocol regarding monitoring programmes and activities, MED POL continues to support the Contracting Parties in implementing their respective national marine pollution monitoring programmes. Small-Scale Funding Agreements (SSFAs) were concluded with Egypt, Israel, Libya and Morocco, and most recently with Tunisia. Provided support will enhance the ongoing work in the framework of the MED POL IV Monitoring Programme, avoiding any discontinuity in submitting and assessment data related to marine pollution; ensuring gradual transition to new IMAP-based monitoring programmes of marine environment; as well as supporting implementation of some pilot projects which include marine litter monitoring. To date, national integrated monitoring and assessment programmes (national IMAPs) with regards to EO5, EO9 and EO10 have progressed in Albania, Bosnia and Herzegovina, Egypt, Israel, Montenegro, Libya, Morocco and Turkey.

40. MED POL is providing support to the Contracting Parties towards the finalization of the national monitoring programmes on marine litter. MED POL is also coordinating efforts to ensure that most monitoring programmes on marine litter in the Mediterranean are aligned with the IMAP requirements, as well as a coherent and coordinated approach is ensured between UN Environment/MAP IMAP and EU MSFD on marine litter monitoring. In that regard, MED POL prepared an update/revised IMAP list for beach marine litter items in an attempt to further highlight the importance of coordinated efforts at different levels, to ensure consistency among the different lists of marine litter items applied in the region, as well as in other regions.

2. CORMON Meetings

41. With the aim to review and exchange information on the status of implementation of the Integrated Monitoring and Assessment Programme (IMAP) with regards to Ecological Objectives EO5, EO9 and EO 10, and to exchange best practices on national implementation of IMAP and challenges, MED POL organized recently two CorMon meetings: (i) Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring held in Podgorica, Montenegro from 2 to 3 April 2019; and 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 also held in Podgorica, Montenegro from 4 to 5 April 2019. These meetings were preceded by an IMAP Best Practices Regional Meeting which was held 10 to 12 July 2018 in Rome, Italy. Both CorMon Pollution and Marine Litter Meetings reviewed progress achieved on IMAP implementation at national and regional levels and provided guidance to MED POL on the way forward.

3. IMAP cross cutting issues related to EO5 and EO9

42. For both CorMon Meeting on Pollution, MED POL prepared a document (UNEP/MED WG.463/5) on several cross-cutting issues related to GES integrated assessment; assessment criteria; and scale of assessments, and reopened discussions with the aim to capture the recommendations of

the IMAP Best Practices Regional Meeting (July 2017) addressing interaction of pressures, impacts and state elements in assessing GES and the interrelation among different relevant Ecological Objectives of the coastal and marine environment in the Mediterranean Sea, within methodological approaches for integrated marine assessments.

43. The definition of the scales of monitoring and assessment are both key and essential steps within the initial phase of IMAP implementation (2016-2019). The geographical and temporal scales for monitoring and assessment have been considered since the adoption of IMAP. They remain a cross-cutting issue since the holistic and integrated assessments between Ecological Objectives and Common Indicators, which requires properly defined fit-for-purpose scales with the possibility of aggregation from national to regional level (i.e. nested approach).

44. An initial proposal was prepared by MED POL for assignment of appropriate scales of elements' to be assessed, as well as assessment scales for IMAP Common Indicators. This proposal was discussed by the IMAP Best Practices Regional Meeting. Accordingly, MED POL developed a document on approaches of scales of monitoring (UNEP/MED WG.463/8) that was considered by the Meeting of the CorMon on Pollution Monitoring. This document aims to present concrete guidance and propose the steps forward in the selection of the scales of monitoring and assessment under IMAP in relation to current practices.

4. *Application/validation of updated/new assessment criteria; Updated Thematic Assessments of the eutrophication and contaminants status in the Mediterranean marine environment*

45. During the 2018-2019 biennium, MED POL prepared 24 new/updated pollution assessment criteria related to 2017 MED QSR. These criteria were approved in Decision IG.23/6 as adopted at COP 20 (Tirana, Albania, December 2017) with the aim of encouraging the Contracting Parties and the Secretariat to test them for indicative purposes in different contexts and settings that are found around the Mediterranean. The updated assessments which are related to EO5 and EO9 are based on further estimated sub-regional Mediterranean background assessment concentrations (Med BACs) calculated from the background concentrations (BCs) recommended at sub-regional scale for heavy metals in biota, whilst the sub-regional Med BACs in sediments have been estimated but not applied.

46. MED POL database related to Common Indicators 13, 14 and 17 has been updated, during the period 2016-2018, with new datasets submitted by several Contracting Parties. Accordingly, MED POL prepared an update of the spatial regional assessments performed during the elaboration of the Med QSR 2017, as the first holistic assessment of the marine environment based on IMAP Common Indicators EO5 and EO9. The updated assessments confirm that GES is maintained in part of the Mediterranean where assessment was possible (France, Slovenia, Croatia, Montenegro and Cyprus) as already stated in the 2017 MED QSR for Eutrophication and Contaminants, despite the fact that known hotspot coastal areas continue to exist.

47. With regards to application/validation of updated/new assessment criteria, the Meeting of CorMon on Pollution Monitoring recommended to continue the application of both trends and new/updated thresholds as appropriate tools for GES assessment, whilst both options should complement each other. It also recommended to further implement COP 20 Decision IG.23/6 by encouraging the Contracting Parties to further test the Background Assessment Criteria (BACs) and Environmental Assessment Criteria (EACs) and thresholds application on a trial basis at regional and sub-regional levels. In view of these recommendations, MED POL will address these aspects for the consideration of the next CorMon Meeting looking into possible revision of the current assessment values (BAC, EAC and ERL) for metals and organic contaminants in coastal sediments and bivalves and fish, in particular for HgT, taking into account sub-regional differences.

48. The main gap in the assessment of eutrophication, as identified in the MED QSR 2017 (Decision IG. 23/6), is related to the nutrient concentrations (Common Indicator 13) for which commonly agreed thresholds have not been determined, negotiated or agreed at the sub-regional or

regional level, whilst there is a need to further support use of the reference and threshold values for chlorophyll a (Decision IG. 22/7). Therefore, MED POL prepared the Guidance on Application of the Water Typology and related Monitoring and Assessment Aspects for concentration of chlorophyll a (CI 14) in the water column.

5. *IMAP Guidance Factsheets: Update for Common Indicators 13, 14, 17, 18, 20 and 21; New proposal for Candidate Indicators 26 and 27*

49. Taking into account the evolving needs to fill the gaps related to the assessment component of the Guidance Factsheets, UN Environment/MAP Programme of Work (PoW) adopted at COP 20, national pollution and litter monitoring programmes, provides for MED POL to undertake important monitoring activities supported by data quality assurance and control, including further development of the IMAP Guidance Factsheets. In response to this mandate, MED POL prepared Document UNEP/MED 473/7 which provides updated Guidance Factsheets for Common Indicators 13, 14, 17, 18, 20 and 21 related to the Ecological Objective 5 (Eutrophication) and Ecological Objective 9 (Contaminants). In this document, MED POL proposes for the first time Guidance Factsheets for the Candidate Indicators 26 and 27 related to Ecological Objective 11 (Energy including underwater noise) that reflects all comments of CorMon meetings.

6. *Status of provision of MED POL monitoring database*

50. The preparation of the 2017 MED QSR had an instrumental role in reporting of new data series related to marine pollution by several Contracting Parties. Accordingly, during the period 2016-2018, MED POL database has been updated with new datasets related to eutrophication [Egypt (2012, 2015), France (2013-2016), Israel (2013, 2015, 2017), Montenegro (2016-2017), Morocco (2013-2015), Tunisia (2015), Turkey (2014-2015)] and contaminants [France (2015-2016), Israel (2015, 2017), Montenegro (2016-2017), Morocco (2016-2018), Slovenia (2016) and Turkey (2014 -2015)]. These datasets will be uploaded into MED POL's online database further to quality checking; and hence the data will be ready for transfer along with present MED POL online database to IMAP (Pilot) Info System once operational (Annex III). Hence, a new call will be launched to the Contracting Parties over the second half of 2019 for an offline reporting of all pending and 2018 monitoring data sets in present Metadata Templates, as approved by the Meeting of the MED POL Focal Points, Rome, Italy, 29-31 May 2017.

7. *Data quality assurance*

51. The MED POL Monitoring Database (i.e. Microsoft Access SQL database software) structured around several components and modules, such as plotting and mapping, trend analysis, a remote access module, in an all-in-one approach, has been the reference within MED POL monitoring programme. The existing mechanisms (e.g. quality templates and QA flagging categories) have been only achieved partially over these years and a full new Quality Assurance Scheme should be implemented by the Contracting Parties.

52. Given the fact that information and communication technologies have changed very rapidly, and a number of data flaws have been also observed after almost 20 years, MED POL has initiated the development of a new data management system for an improved data management system fit-for-purpose to the requirements of the IMAP, as explained in the previous section on "Status of provision of MED POL monitoring database."

8. *Monitoring protocols for Common Indicators related to pollution and update of the List of Priority Contaminants*

53. The harmonization and wider knowledge of the current practices in use in terms of monitoring protocols are key to allow standardized and comparable reporting datasets through the Mediterranean region, as well as to optimize and deliver cost-effective monitoring programmes. Furthermore, the update of monitoring methodologies will support the alignment of the existing national marine

monitoring programmes with requirements of IMAP. To this regard, MED POL prepared a document (UNEP/MED WG 463/6) which presents a summary of the main monitoring methodologies in use by the Contracting Parties in the marine environment, along with the traditional methods which are still valid; overall, to offer wider information and guidance on current monitoring practices which could be implemented. To that effect, the Meeting of CorMon on Pollution Monitoring requested the MED POL to develop an IMAP Monitoring Manual for EO5 and EO9 in the biennium 2020-2021 to collate and agree on the selected methodologies in use in the Mediterranean, including technical details and recommendations for use of monitoring protocols.

54. With regards to emerging issues in marine litter, MED POL prepared a preliminary document (WG.464/Inf.4) presenting the “Methodological Elements for Monitoring Floating Microplastics.” The CorMon Meeting on Marine Litter requested from MED POL to further elaborate the presented document.

55. MED POL prepared an updated List of Priority Contaminants under MAP/Barcelona Convention within the MED POL Monitoring Programme. Additional chemicals were proposed by the Meeting of CorMon on Pollution Monitoring (Podgorica, 2-3 April 2019) for inclusion into the monitoring programmes of IMAP Common Indicators 17 and 20 with the aim to provide further environmental information of the potential threats posed in the marine environment and measures to be taken. MED POL was further requested by the Meeting to take into consideration the importance of coordinated efforts at different levels to fill in the gaps related to knowledge on priority contaminants with the view to their potential consideration in the framework of IMAP.

56. MED POL is working together with EEA to deliver a report on the implementation of H2020 Initiative in the Mediterranean. To this aim, MED POL elaborated on the thematic assessment chapters as defined in the H2020 Assessment Outlook. The thematic assessments are based on the agreed H2020/NAP indicators taking into account the links to the evaluation on National Actions Plans and the legally binding Regional Plans. MED POL is responsible for drafting the chapter on Industrial Emissions H2020 Indicators.

Strategic Outcome 2.5: Enhanced capacity at regional, sub-regional and national levels including technical assistance and capacity building

57. MED POL organized capacity building workshops to support national implementation of IMAP and related criteria for pollution and marine litter in Egypt (Alexandria, 26 – 28 February 2018), Morocco (Rabat, 19-20 February 2018 and 14-15 March 2019) and Libya (Tunis, Tunisia, 12-15 March 2018). The workshops addressed the methodological and practical aspects related to monitoring and assessment of marine environment with regards to pollution and marine litter clusters of IMAP Common Indicators: 13, 14, 22 and 23. The IMAP monitoring protocols and assessment methods, sample processing, metadata reporting templates, as well as the examples of existing national monitoring schemes and capacities compared to IMAP requirements and the guidance factsheets have been presented and extensively discussed. Another set of capacity building programmes to support completion of respective national IMAP-based monitoring programmes preparation has been initiated in March 2019 and is expected to continue till May 2019.

58. Under the ENI SEIS II Project, MED POL organized national meetings/workshops for Algeria, Israel, Egypt, Lebanon, Libya, Morocco, Jordan, Palestine and Tunisia. National consultants assisted in running these workshops with the aim of helping countries collect data and populate the H2020/NAP indicators on industrial emissions, waste and marine litter. The national consultants are supported by a regional consultant, responsible also for supporting PRTR implementation in these countries.

59. Under the Marine Litter MED Project, MED POL organized national training workshops were held in Egypt, Morocco, Libya and Tunisia to enhance their capacities on the implementation of FfL and AaB pilots and on IMAP marine litter Monitoring.

60. MED POL contributed to the organization of IMAP Best Practices Regional Meeting held 10 to 12 July 2018 in Rome, Italy. The Meeting considered several cross-cutting issues related to GES integrated assessment; assessment criteria; and scale of assessments, addressing interaction of pressures, impacts and state elements in assessing GES and the interrelation among different relevant Ecological Objectives of the coastal and marine environment in the Mediterranean Sea.

61. MED POL organized two Regional Meetings on Marine Litter Best Practices in Izmir, Turkey (9-10 October 2018) and in Seville, Spain (8-10 April 2019). The two Regional Meetings reviewed the progress on the implementation of the Regional Plan on Marine Litter Management in the Mediterranean; shared preliminary results, findings and lessons learnt from the implementation of several pilots on selected measures (Adopt-a-Beach, Fishing-for-Litter, development/implementation of the regulatory framework for the reduction of single-use plastic bags and promote Extended Producer Responsibility (EPR), better management of sea-based litter in ports and marinas) at country level.

62. In the framework of Marine Litter MED Project, MED POL created in 2018 the necessary enabling conditions to undertake the concrete actions envisaged by the project with regards to both key results related to marine litter reduction in 17 pilot areas in 5 different countries and enhancing capacities of stakeholders to address marine litter through the delivery of project outputs. Work is ongoing for implementing measures/pilots in 2 countries (i.e. Tunisia and Algeria).

63. Under the infrastructure and data management component of the ENI SEIS II project, capacity building activities are carried out in eligible countries under the SEIS Project for building their infrastructure and data flow capabilities in order to fulfill their reporting obligations to the Barcelona Convention on pollution-related protocols and indicators. In this context, MED POL is coordinating with Info/RAC to ensure that the training activities to national experts will support countries to collect and share data through the Spatial Data Infrastructure for H2020/NAP indicators and NBB/PRTR Information System.

64. The Regional Meeting on Reporting of Releases to Marine and Coastal Environment from Land Based Sources and Activities and Related Indicators in Tirana, Albania (19-20 March 2019) had a strong capacity Building dimension. In coordination with EEA, meeting participants were provided with comprehensive information on development principles and main elements of the H2020 Assessment Outline focusing on the details and characteristics of integrated environmental assessment including assessment across thematic chapters; issues across geographical scales; and stakeholder inclusion at all stages of assessment. Work is ongoing whereby eligible countries under the SEIS Project are being provided with technical and financial support to populate the H2020 indicators and prepare national assessments. This work is very crucial for building national capacities to undertake indicator-based assessments for evaluating NAP Implementation in the future.

Annex I

Status of level of information provided in the Reports for the biennium 2016-2017 on measures taken by the Contracting Parties for the implementation of the technical aspects of Pollution related Protocols in line with Article 26 of the Barcelona Convention and Article 13 of the LBS Protocol

Status of level of the information provided in the Reports on measures taken by the Contracting Parties for the implementation of the technical aspects of Pollution related Protocols in line with Article 26 of the Barcelona Convention and Article 13 of the LBS Protocol (+) information provided; (-) information not provided, (+-) information not complete, (NA) data not available/Report not submitted or in draft stage

Countries	Dumping Protocol							LBS Protocol						Hazardous Waste Protocol					
	Table 1	Table 2a	Table 2b	Table 3	Table 4	Table 5	Table 6	Table I	Table II	Table III	Table IV	Table V	Table VI	Table I	Table II	Table III	Table V	Table VII	Table VI
Bosnia and Herzegovina	+	-	-	-	-	-	-	+	-	+	+	+/-		+	-	-	-	+	+
EU	+	-	-	+	-	+	-	+	-	-	-	+	-	+	-	-	-	-	+
France	+	-	+	+	+	+	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Greece	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Italy	+	-	-	+	+	+	+	+	+	+	+	+	-	+	-	+	+	+/-	+
Lebanon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Montenegro	N/A	N/A	N/A	N/A	N/A	N/A	N/A	+	-	+	+/-	+	-	+	-	-	+	-	+

Dumping Protocol	LBS Protocol	Hazardous Waste Protocol
Table I: Legal and regulatory measures	Table I: Legal and Regulatory Measures	Table I: Legal and regulatory measures
Table 2a. Biennial Summary of Dumping at Sea Permits and Quantities	Table II: Inventory: LBS Protocol (Article 13(c))	Table II: Wastes other than those listed in Annex I to the Protocol considered or defined as hazardous wastes under domestic legislation (Article 4 1)
Table 2b: Quantities in Dry Weight of Dredged Material as specified in Table 2a Conversion factors: Dredged material in volumes (m3) conversion to dry weight, (tons)= ((Wet volume x(100-%moisture)/100) * density of material	Table III: Implementation of Regional Actions Plans (RAPs) and their effectiveness	Table III - Total amount of generation of hazardous wastes and other wastes (Article 8.2)
Table 3. Biennial Summary of Quantities of Wastes or Other Matter at Sea for Each Dump Site	Table IV: Implementation of NAPs and their effectiveness	Table IV - Generation of hazardous wastes and other wastes by Y-categories
Table 4. Coordinates for Dump Sites	Table V: Monitoring	Table V - Export of hazardous wastes and other wastes
Table 5: Monitoring	Table VI: Enforcements measures	Table VI – Enforcement measures
Table 6: Biennial Summary of Information on Placement for Artificial Reefs		Table VII - Disposals which did not proceed as intended

Annex II
Roadmap and Needs Assessment for the 2023 Mediterranean Quality Status Report

Roadmap and Needs Assessment for the 2023 Mediterranean Quality Status Report

I From the 2017 MED QSR to the 2023 MED QSR

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 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.

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”.

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”.

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 and represents the first draft of the Roadmap. As such, it is detailing the main processes and milestones and related outputs and timelines, the implementation of which would allow the MAP system to fill the identified knowledge gaps and deliver, to the extent possible, a fully-fledged, quality-assured, region-wide and data-based 2023 MED QSR (First Draft).

The First Draft 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.

This draft of the 2023 MED QSR Roadmap will be further elaborated and discussed, in line with Decision IG.23/6, in close cooperation with the Contracting Parties through the Ecosystem Approach Governance Structure.

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

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.

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 need 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.

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.

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.

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.

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.

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

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.

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.

Table 1 below details each of the above main processes and milestones of the roadmap, with main outputs and delivery timelines.

Once reviewed by the Bureau at its 87th Meeting in November 2018, this First Draft will be further elaborated in close coordination with the Contracting Parties through the Ecosystem Approach Governance Structure. In particular, the Ecosystem Approach Coordination Group Members will be requested to comment on the First Draft, including the reflections of the Bureau. 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.

¹ Noting 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

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. 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				
<p>Analysis for each IMAP cluster on knowledge gaps, with focus on scales of monitoring prepared (mid 2019 - end 2020);</p> <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>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);</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</p>	<p>State of the national implementation of IMAP reported by the Contracting Parties (2018/2019, 2020/2021, 2021/2022);</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</p>	<p>IMAP information and data sharing policy developed (2019);</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>Timeline for data-sharing with regional partners defined (2019-2021);</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</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>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>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 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>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.

Annex III

Status of data submission related to marine pollution monitoring by the Contracting Parties in line with Article 12 of the Barcelona Convention, Articles 8 and 13 of the LBS Protocol and IMAP Decision IG 22/7

To consider the status of the existing and new datasets submission related to marine pollution monitoring by the Contracting Parties that is presented in Table 1, the following explanations should be noted:

- **xxxx** Data years highlighted in green have been included in the MED POL Database, as well as on-line version of MED POL Database.
- **xxxx** Data years highlighted in yellow in bold have not been uploaded to the MED POL Database due to format issues (data fails in some important parameters, coordinates, units, etc.), despite have been used, as possible and appropriate.
- **xxxx** Data years highlighted in blue in cursive and bold reflects datasets that have not been yet included in on-line MED POL Database (without or with minimal issues) and have been used as appropriate.

Table 1. Status of data submission related to marine pollution monitoring by the Contracting Parties in line with Article 12 of the Barcelona Convention, Articles 8 and 13 of the LBS Protocol and IMAP Decision IG 22/7.

Country	Nutrients	Chl-a	Biota - TM	Biota - OC	Sediment TM	Sediments OC	Rivers - Nutrients	Oceanographic parameters (Temp., etc.)
Albania	2005 2006		2001 2002 2003 2004 2005 2006 2007	2003 2004				
Algeria	2012	2012	2012	2012	2012	2012		
Bosnia and Herzegovina	2006 2007 2008	2006 2007 2008					2006 2007 2008 2009 2010	
Croatia				1999 2000	2002		2000 2001 2002	

Country	Nutrients	Chl-a	Biota - TM	Biota - OC	Sediment TM	Sediments OC	Rivers - Nutrients	Oceanographic parameters (Temp., etc.)
				2003 2004 2005 2006	2003 2004 2005		2003 2004 2005	
	2009 2011 2012 2013 2014	2009 2011 2012 2013 2014	2009 2011 2012 2013 2014	2009 2011 2012 2013 2014	2009 2011 2013	2009	2009	
Cyprus			1999					
	2001		2001	2000 2001 2002 2003				2001 2002 2003
	2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	2004 2005 2006 2007 2008 2009 2011 2012 2013 2014 2015 2016				2004 2005 2006 2007
Egypt			2006 2009	2006 2009	2006 2009	2006 2009		

Country	Nutrients	Chl-a	Biota - TM	Biota - OC	Sediment TM	Sediments OC	Rivers - Nutrients	Oceanographic parameters (Temp., etc.)
	2010 2012 2014 2015	2010 2012 2014 2015	2010 2012	2010 2012	2010	2010		
France	2009 2012	2009 2012 2013 2014 2015	1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2009 2012 2015	1997 1999 2000 2001 2002 2003 2004 2005 2006 2009 2012 2015	2006 2009 2010 2011	2006 2009 2010 2011		
Greece	1999 2000 (few) 2004 2005	1999 2000 (few) 2004 2005	1999 2004 2005	1999 2004 2005	1999 2000 (few) 2004 2005			
Israel			1999 2000		1999 2000			

Country	Nutrients	Chl-a	Biota - TM	Biota - OC	Sediment TM	Sediments OC	Rivers - Nutrients	Oceanographic parameters (Temp., etc.)
	2011 2012 2014 2015 2016 2017	2011 2012 2014 2015 2016 2017	2011	2011	2011 2014 2016 2017	2011 2016 2017		
Morocco	2006 2006 2007 2008 2013 2014 2015	2013 2014 2015	1998 2000 2001 2002 2003 2004 2005 2006 2006 2006 2007 2008 2009 2011 2012 2013 2014 2015 2016 2017 2018	2006 2006 2007 2009 2011 2012 2013 2014 2015 2016 2017 2018	2006 2006 2007 2012 2013 2014 2015 2016 2017 2018		2006 2006 2007 2009	

Slovenia	1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	1999 2000 2001 2002 2003 2004 2005 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016		1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	2003 2004 2005 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016	2012
Syria	2007		2007		2007	2007		
Tunisia	2002 2003 2004 2005 2006 2007 2008 2009 2010	2002 2003 2004 2005 2006 2007 2008 2009 2010	2001 2002 2003 2004 2005 2006 2007 2008 2009 2010	2007	2001 2003 2004 2005 2006 2007 2008 2009 2010	2001 2002 2004 2005 2006 2007 2008 2009 2010		2005 2006 2007 2008 2009 2010

