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Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring

Podgorica, Montenegro, 2-3 April 2019

Report of the Meeting of the Ecosystems Approach Correspondence Group on Pollution Monitoring

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UNEP/MAP
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Introduction

1. In accordance with the UNEP/MAP Programme of Work 2018-2019 adopted by the 20th Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (Tirana, Albania, 17-21 December 2017), the Secretariat organized a Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (CorMon on Pollution Monitoring).
2. The main objectives of the Meeting were to:
 - a) Review and exchange information on the status of implementation of the Integrated Monitoring and Assessment Programme (IMAP) with regards to EO5 and EO9, including cross-cutting issues at the regional and national levels, along with the state of play of the MEDPOL marine pollution monitoring programme and regional database;
 - b) Discuss and provide guidance on data standards and data dictionaries for IMAP Common Indicators related to pollution and to Quality Assurance and Quality Control issues;
 - c) Discuss and provide guidance on several cross-cutting issues of regional importance to the Pollution Cluster of the IMAP implementation, as well as monitoring protocols and other monitoring tools/elements; and
 - d) Exchange best practices on the national implementation of IMAP and address the identified challenges.

Agenda item 1: Opening of the Meeting

1. The Meeting was opened by H.E. Mr. Pavle Radulovic, Minister of Environment and Sustainable Development, and Ms. Tatjana Hema, Deputy Coordinator of UN Environment MAP-Barcelona Convention.
2. Minister Radulovic welcomed the organization of the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (CorMon on Pollution Monitoring) in Podgorica, back-to-back with the organization of the Meeting of the Ecosystem Approach Correspondence Group on Marine Litter Monitoring and the ENI SEIS II Assessment of Horizon 2020 National Action Plans on Waste Indicators. The Minister pointed out that these meetings are serving to further strengthen the prominent and irreplaceable role of UN Environment in changing our habits and choices in the management of natural, human and social resources, as well as in producing goods and services. Fostering holistic, integrated monitoring and assessment of the marine environment, hand-in-hand with the implementation of pollution-reduction measures to achieve or maintain a good environmental status should strengthen our ability to use data analysis in supporting evidence-based development and application of innovative policies and solutions.
3. The Deputy Coordinator in her opening remarks thanked Minister Radulovic for hosting in Podgorica two important meetings MAP regional meetings highlighting the importance of CORMON meetings for the implementation of IMAP. She also emphasized that the meetings of the CorMons on Pollution and Marine Litter and ENI SEIS Waste Cluster of H2020 Indicators were expected to provide crucially important inputs to the decision-making process within MAP on matters related to IMAP implementation, which will culminate in the preparation for COP 21, to be held in December in Naples, Italy, as well as to the Joint Report that EEA and MAP are preparing on implementation of the H2020 Initiative.
4. The Meeting was attended by representatives from the following Contracting Parties: Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, the European Union, Greece, Israel, Italy, Lebanon, Malta, Montenegro, Morocco, Slovenia, Spain, Tunisia and Turkey.
5. The following United Nations bodies, specialized agencies, convention secretariats and intergovernmental organizations were represented as observers: the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS); the

European Environment Agency, the European Marine Observation and Data Network (EMODNET) as well as the International Atomic Energy Agency (IAEA); were also present.

6. The following non-governmental organizations and other institutions were represented as observers: Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE).

7. The United Nations Environment Programme (UNEP), including the Secretariat of the Mediterranean Action Plan and the Barcelona Convention represented by the MAP Coordinating Unit and the Programme for the Assessment and Control of Marine Pollution in the Mediterranean (MED POL), the Regional Activity Centre for Information and Communication (INFO/RAC); the Priority Actions Programme Regional Activity Centre (PAP/RAC) as well as the Regional Activity Centre for Specially Protected Areas (SPA/RAC). The full list of participants is attached to the present report as Annex I.

Agenda items 2: Organizational Matters

a) Rules of Procedure for the Meeting on IMAP Implementation: Best Practices, Gaps and Common Challenges

8. The rules of procedure for meetings and conferences of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols applied mutatis mutandis to the present Meeting (UNEP/IG.43/6, Annex XI).

b) Election of officers

9. In accordance with the Rules of procedures for meetings and conferences of the Contracting Parties, the Meeting elected one (1) President, three (3) Vice-Presidents and one (1) Rapporteur from among the participants, as follows:

Chair: Ms Ivana Stojanovic, Montenegro
Vice-Chair: Mrs. Erika Magaletti, Italy
Vice-Chair: Mr. Mohammad Elbouch, Morocco
Vice Chair: Mr. Samir kaabi, Tunisia
Rapporteur : Mr. Konstantinos Antoniadis, Cyprus

c) Adoption of the Provisional Agenda

10. The proposed Provisional agenda appearing in document UNEP/MED WG.463/1, was adopted without changes.

d) Organization of Work

11. Discussions were held in plenary sessions in line with the provisional agenda. Simultaneous interpretation into English and French was provided during the Meeting.

Agenda item 3: State of Play of Integrated Monitoring and Assessment Programme (IMAP) Implementation with Regards to EO5 and EO9, MEDPOL Monitoring Programme and Way Forward

12. The Secretariat provided an overview of the Pollution Cluster of the IMAP implementation, including the status of the MEDPOL Marine Monitoring Programme (Phase IV) and the challenges related to its alignment with the requirements of the IMAP (UNEP/MED WG.463/3), highlighting the progress, challenges and next steps related to the following issues: (i) IMAP implementation along

with capacity building at the national level; (ii) actions aimed at addressing the needs and gaps identified in 2017 MED QSR towards a better integrated and DPSIR-based GES assessment of the 2023 MED QSR; (iii) progress on the development of monitoring protocols and schemes for quality assurance and control of data related to pollution; (iv) update of the list of priority contaminants and thematic assessments of the data on eutrophication and contaminants; (v) the status of provision of the MED POL monitoring database and development of a fully operative IMAP (Pilot) Information System, and the realization of proficiency testing for heavy metals and organic compounds and related training courses.

13. The Secretariat also presented the work undertaken by MEDPOL in line with the recommendations of the Regional Best Practices Meeting on IMAP Implementation, held in Rome, Italy on 10-12 July 2018, with regards to several cross-cutting issues related to the Pollution Cluster of IMAP (UNEP/MED WG.463/5) and UNEP/MED WG.463/8). It also presented an update of the Guidance Factsheets related to IMAP Common Indicators 13, 14, 17, 18, 20 and 21, as well as the proposal of the Guidance Fact Sheets for IMAP Candidate Indicators 26 and 27 for the first time (UNEP/MED WG.463/4).

14. Several participants took the floor addressing the priority actions to be undertaken for IMAP implementation and the way forward to consider the scales of monitoring along with the scales of assessment as a condition to define the adequate nested approach of the monitoring units into assessment scale; the proposed cross-cutting issues along with the methodological approaches for integrated marine assessments, as well as discussions on the revised and newly proposed Guidance Fact Sheets.

15. The Meeting indicated differences between coastal and open-sea monitoring, as well as a need for defining the coastal area versus offshore area; although an absolute definition could not be provided (e.g. one mile from the coast and beyond one mile could be considered as an initial definition for the coastal and offshore areas, respectively). The differences between the habitats of the two areas were highlighted, pointing out that they are more tailored to the type of habitats than to the spatial scales of monitoring. The use of pelagic specimen rather than those of benthic species was recommended.

16. The Meeting noted that anthropogenic pressures, a risk-based approach and cost-efficiency should be observed in order to select monitoring stations and scales of monitoring. Furthermore, the Meeting indicated that there is a need to consider differences within the offshore areas regarding definition of the finer monitoring and assessment scales (e.g. sub-areas and sub-divisions) and that temporal scales of monitoring need to be applied, whilst keeping in mind the long-term nature of the IMAP. As a priority next step, the Meeting indicated that it is necessary to elaborate in further detail the use of the right assessment tools to overcome the challenges related to monitoring scales definitions. Seafloor integrity was mentioned as a parameter to be particularly observed with regards to impacts in offshore areas.

17. Appreciating the work undertaken to advance the cross-cutting issues following the IMAP Regional Best Practices Meeting, July 2018, in particular with regards to the methodologies proposed for GES-integrated assessment based on the DPSIR approach. Specific attention was attached to clarification on the activities and related impacts within the Matrix Scores (e.g. Scoreboards), as well how expert opinions were applied in order to showcase the interrelations of pressures, impacts and state of the marine environment. The Meeting noted the need to complement the methodologies for integrated marine assessment with the modelling of monitoring data in order to ensure more reliable quantification of the magnitude of impacts (i.e. scientifically based scoring). Interest was expressed to test this approach at the national level.

18. The Meeting indicated the need for coordinated efforts at different levels to fill in the gaps related to knowledge about priority contaminants with a view to their potential consideration in the framework of IMAP.

19. While expressing appreciation to the proposed draft guidance on application of the water typology, the Meeting recommended MED POL to consider the possible use of relevant existing national exercises related to integrated GES assessment with regards to eutrophication.

20. Furthermore, the Meeting highlighted the importance of applying both trends and new/updated thresholds, as well as the testing of the assessment criteria for contaminants, including possible revision of the current assessment values (BAC, EAC and ERL) for metals and organic contaminants in coastal sediments and in bivalves and fish, in particular for HgT, taking into account the sub-regional differences.

21. The Meeting welcomed the proposed revision of the Guidance Factsheets for Common Indicators 13, 14, 17, 18, 20 and 21 related to Ecological Objectives 5 and 9 acknowledging that they are in line with the IMAP COP Decision and consistent with the Data Standards (DSs) and Data Dictionaries (DDs) of the IMAP (Pilot) Info System currently in development. A proposal was made to consider certain adjustments to the GES definitions of some Common Indicators in order to ensure their full compatibility with the findings of the ongoing IMAP implementation.

22. Following the presentation of the proposed Guidance Factsheets for Candidate Indicators 26 and 27 related to Ecological Objective 11 by ACCOBAMS representative the discussion highlighted several important issues (e.g. that monitoring based on Common Indicators 26 and 27 needs to be established, primarily considering the offshore areas; monitoring on continuous noise could be started by using models and data assimilation; there is a need to continue building on the results of ongoing project QUIETMED II ending December 2020, whilst work of the Technical Group on noise under MSDF should complement the IMAP implementation).

23. The Meeting's final conclusions related to this agenda item(s) are presented in Annex III of this report.

Agenda item 4: IMAP Implementation at National Level
UNEP/MED WG.463/4

24. The Chair invited the representatives of the Contracting Parties to present the status of preparation of their national IMAP-based monitoring programmes, focusing on the Pollution Cluster update and/or implementation efforts and providing information on the status of national monitoring data reporting.

25. The representatives of Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Israel, Italy, Lebanon, Malta, Montenegro, Morocco, Slovenia, Spain, Tunisia and Turkey shared their IMAP national implementation in the areas of pollution and marine litter.

26. The Meeting welcomed the ongoing implementation efforts of all countries. It highlighted the emerging need for capacity-building to strengthen the national implementation of IMAP, considering country specifics, and to ensure that more complete and synchronized datasets for assessments are generated in a timely manner.

27. Several Contracting Parties indicated that effective implementation of IMAP would require more time; provision of adequate equipment for data sampling and processing; and organization of joint field survey campaigns at the regional and sub-regional levels as a crucial step towards ensuring good quality of data and data comparability.

28. The Meeting's final conclusions related to this agenda item are presented in Annex III.

Agenda item 5: Marine Pollution Monitoring Regional Data Base and Related Quality Assurance Issues; Data Standards and Data Dictionaries

29. The Secretariat presented the work undertaken by MEDPOL with regards to the results of the 2017 and 2018 Proficiency Tests (PTs) on the determination of trace elements and organic contaminants and related Training Courses (TCs) organized for trace elements and organic compounds (UNEP/MED WG.463/7); the revised Data Standards and Data Dictionaries for IMAP Common Indicators 13, 14 and 17 (UNEP/MED WG.463/9); and the proposal of the Schemes for Quality Assurance and Control of Data related to Pollution (UNEP/MED WG.463/10).

30. The representative of MESL/IAEA presented the results of the Proficiency Tests (PTs) and related Training Courses (TCs), along with the key problems, challenges and way forward towards improvement of the present situation.

31. The Meeting indicated the need for the Focal Points of MED POL to follow up more closely on the results of the PTs and TCs with national laboratories participating in the MEDPOL IV/IMAP monitoring programme and experts participating in the PTs and TCs respectively, to be properly informed about communication of the national designated laboratories with MESL.

32. The Meeting noted the need to re-examine the output of PTs with regards to the accuracy of testing methods applied in the Countries, whilst an effort should be made to report on the level of certainty of data without z-scores, keeping in mind that the quality of data affects decision making. Accordingly, the Meeting recommended that the Secretariat takes appropriate actions to ensure that the results of the PTs and TCs guide further actions within the quality assurance programme of UN Environment/MAP–MEDPOL, including identification of specific knowledge and technical needs of individual laboratories to apply good laboratory practices.

33. The Meeting agreed on the need to waive the results of PTs by requesting that the designated national laboratories provide detailed results on their performance to MAP and MED POL Focal Points, as well as ensure that the participants in TCs are from laboratories designated to participate in PTs.

34. The Meeting stressed the importance of assessing the participation of the designated national laboratories in PTs by MED POL Focal Points and MESL. The national laboratories need to provide their feedback to MESL on exercised interlaboratory testing and recorded difficulties. Consistently with interlaboratory testing, training courses need to be open to all MED POL laboratories designated for participation in PTs.

35. The Meeting indicated the need to strengthen the national capacities for sampling and assessment, including more sophisticated training for the use and maintenance of analytical equipment, and provision of the laboratories with methodology to prepare reference materials.

36. The Meeting noted that MESL should inform in a timely manner when the reference materials and standards are “*en route*” to the national laboratories, so as to ensure coordination between the national laboratories and the responsible government authorities.

37. The Meeting highlighted the need for the submission of all pending monitoring data collected up to 2018, whilst ensuring that a good quality of data is reported to the Secretariat. The representative of one Contracting Party expressed readiness to immediately report all monitoring data into the IMAP (Pilot) Info System once it is operational.

38. INFO/RAC introduced document UNEP/MED WG.463/9 consisting of the revised Data Standards and Data Dictionaries for IMAP Common Indicators 13, 14 and 17 following the outcome of the Regional IMAP Best Practices Meeting and the bilateral consultations between INFO RAC and MED POL.

39. Along with the introduction of UNEP/MED WG.463/9, INFO/RAC informed the Meeting about the elements of the draft document “MAP Data Management Policy,” including a roadmap for its implementation and the initial elements of the specific IMAP Data Policy (i.e. users, data categories and accessibility of data). INFO/RAC indicated that the document will be further revised following the outcome of the Meeting of INFO/RAC Focal Points to be held on 16-17 April 2019 and submitted for information to the Meeting of MED POL Focal Points.

40. The Meeting provided its feedback with regards to: (i) the format, structure and contents of the DSs and DDs and the need to ensure that the IMAP (Pilot) Info-System is enabled to receive in 2020 new datasets related to the IMAP Common Indicators 13, 14 and 17; (ii) initial steps towards preparation of MAP Data Management Policy; and (iii) preparation of DSs and DDs for other IMAP Common Indicators by the end of next biennium (2020-2021) and the appointment of national experts to closely support realization of this task.

41. The Meeting noted that there is a need to ensure that errors in the data submitted to the MED POL Database are corrected as a necessary step to improve the quality of monitoring data, before their assimilation into the new IMAP (Pilot) Info System.

42. Several representatives namely Croatia, Italy, Montenegro, Morocco and Slovenia volunteered for testing of the IMAP Pilot Info system. The need to ensure coordination with Focal Points of INFO/RAC was indicated.

43. The Meeting approved the proposed Data Standards and Data Dictionaries (DSs and DDs) for IMAP Common Indicators 13, 14 and 17 and recommended their submission to the Meeting of the MED POL Focal Points.

44. The presentation of the Schemes for Quality Assurance and Control of Data related to Pollution provided by the Secretariat, was followed by discussions on a number of issues related to the ‘data quality’ attributes and schemes (categories proposed for data validation (i.e. QA flagging); timing of reporting that needs to be related to the quality of data, and not only to the quality of assessment; national experts need to be involved in the assessment in order to help with different aspects of the assessment, whilst distinguishing between the quality of data and quality of system to produce good data for the assessment).

45. Following a question by the floor, the Secretariat explained that the attribute “timeless” refers to the timely submission of the datasets by the Contracting Parties to decrease the current time window of the regional assessment in the Mediterranean observed in QSR 2017 and updated for SoED 2019.

46. The Meeting recommended that the Secretariat implement the new Quality Assurance Scheme, taking into account the existing mechanisms (e.g. quality templates and QA flagging categories) requesting that the Secretariat ensures that the schemes of data quality assurance and quality assurance of data assessment are provided separately.

47. The Meeting’s final conclusions related to this agenda item are presented in Annex III of this report.

Agenda item 6: Monitoring Protocols for IMAP Common Indicators Related to Pollution

48. The Secretariat presented the proposal of the Monitoring Protocols related to IMAP Common Indicators 13, 14, 17, 20 and 21 (UNEP/MED WG.463/6) providing a summary of known practices employed in the marine monitoring networks for EO5 and EO9 structured around the following monitoring steps: sample collection, sample processing, measurement and reporting and QA (analytical methods; offshore and coastal sampling methods, sample preparation and processing; data analysis, determination and quantification; and data processing and reporting). The Secretariat also

highlighted the scope of the differences between the traditional ongoing MED POL monitoring programme and IMAP implementations.

49. Several priority issues to be considered with regards to the further development of Monitoring Protocols were highlighted by the meeting (i) the need for further development of BACs, including assessment criteria for integrated chemical and biological assessment methods and testing of new research-proven tools for monitoring toxic effects; (ii) prioritization of development of offshore monitoring according to a risk-based approach and the specifics of offshore areas (e.g. the sediment sampling differs in offshore areas compared to coastal waters; the assessment of impacts is mostly related to the water column and less to benthic habitats, etc.); (iii) the need to support the application of offshore harmonized methods; (iv) the need to include some new methods in monitoring in offshore areas, especially those related to eutrophication, whilst taking into account the specifics of the Mediterranean region (i.e. it is not rich in nutrients, there are deserts nearby, etc.); (v) the need to set the reference conditions not only for chlorophyll *a*, but also for nutrients, transparency and oxygen, as minimum requirements; (vi) the need to regularly revise the methodologies for monitoring (e.g. instrumental analysis), including Quality Assurance; (vii) ensuring that monitoring data and assessment findings serve to define the policy measures; (viii) ensuring that assessments, in particular at the regional level, should guide the monitoring strategies; and (ix) further focusing on related good laboratory practices and assessment methods, taking into account permanent changes in literature, reference methods and sampling and assessment techniques; while noting the need to ensure that monitoring provides data that enable assessments.

50. The Meeting requested the Secretariat prepare a more comprehensive Monitoring Manual 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. The Meeting also requested the Secretariat to amend document UNEP/MED WG.463/6 by adding one more column with threshold values in the tabular forms of all Monitoring Protocols for IMAP Common Indicators related to Pollution to help their ongoing implementation at the national level.

51. The final conclusions and recommendations of the Meeting related to this agenda item are presented in Annex III.

Agenda item 7: Any Other Business

52. Under this agenda item, two presentations were made: a) the representative of the UNEP World Conservation Monitoring Centre (which leased the component of the ODYSSEA project about engagement with potential users of the Platform) presented an update on pollution monitoring under the ODYSSEA project; and b) the representative of the National Institute of Oceanography and Experimental Geophysics, Trieste who presented the datasets available within EDMODnet Chemistry and HarmonIA marine data initiatives.

Agenda item 8: Conclusions and Recommendations

53. The Meeting reviewed, commented on and approved the draft Conclusions and Recommendations as amended and attached to the present report as Annex III. This includes final refinements to ensure full consistency between the English and French versions.

Agenda item 9: Closure of the Meeting

54. After expressing the usual courtesies, the Chair declared the Meeting closed at 17:00 on Wednesday, 3 April 2019.

Annex I
List of Participants

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**SECRETARIAT TO THE BARCELONA CONVENTION AND COMPONENTS OF
THE MEDITERRANEAN ACTION PLAN
SECRETARIAT DE LA CONVENTION DE BARCELONE ET COMPOSANTES DU
PLAN D'ACTION POUR LA MEDITERRANEE**

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Annex II
Agenda of the Meeting

Provisional Agenda

- Agenda Item 1:** Opening of the Meeting
- Agenda Item 2:** Organizational Matters
- Agenda Item 3:** State of Play of Integrated Monitoring and Assessment Programme (IMAP) Implementation with regards to EO5 and EO9, MEDPOL Monitoring Programme and Way Forward
- Agenda Item 4:** IMAP Implementation at National Level
- Agenda Item 5:** Marine Pollution Monitoring Regional Data Base and Related Quality Assurance Issues; Data Standards and Data Dictionaries
- Agenda Item 6:** Monitoring Protocols for IMAP Common Indicators Related to Pollution
- Agenda Item 7:** Any Other Business
- Agenda Item 8:** Conclusions and Recommendations
- Agenda Item 9:** Closure of the Meeting

Annex III
Conclusions and Recommendations

Conclusions and Recommendations

On 2 and 3 April 2019, the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring was held at Hotel Hilton in Podgorica, Montenegro at the kind invitation of the Ministry for Sustainable Development and Tourism.

The Meeting highly appreciated the welcoming speech delivered by his Excellency, Mr. Pavle Radulovic, Minister of Sustainable Development and Tourism.

Following the review and discussions of all agenda items, the Meeting agreed on the following conclusions and recommendations:

Agenda item 3: State of Play of Integrated Monitoring and Assessment Programme (IMAP) Implementation with regards to EO5 and EO9, MED POL Monitoring Programme and Way Forward

1. Taking into account evolving needs to fill the gaps, in particular those related to assessment component of the Guidance Factsheets, the Meeting welcomed proposed revision of the Guidance Factsheets for Common Indicators 13, 14, 17, 18, 20 and 21 related to the Ecological Objectives 5 (Eutrophication) and 9 (Contaminants) and the Guidance Factsheets for Candidate Indicators 26 and 27 related to Ecological Objective 11 (Energy including underwater noise) and requested the Secretariat to submit to the Meeting of MED POL Focal Points in May 2019 the revised versions of the Guidance Fact Sheets for their approval.

2. With regards to the cross-cutting issues, and after discussion of the document UNEP/MED WG. 463/5, the Meeting:

- a) Appreciated the work undertaken by the Secretariat to advance the cross-cutting issues which were presented at the Regional Best Practices Meeting (Rome, Italy, 10-12 July 2018);
- b) Acknowledged the methodologies proposed for GES-integrated assessment based on DPSIR approach and approved them in principle;
- c) Recommended their testing by the Contracting Parties with the view to present related main findings to the next meeting of CorMon on Pollution Monitoring;
- d) Recommended to complement these methodologies with the modelling of monitoring data in order to ensure a more reliable quantification of the magnitude of impacts (i.e. scientifically-based scoring);
- e) Requested the Secretariat to present these methodologies to the forthcoming Meeting of the MED POL Focal Points in May 2019.
- f) 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; and
- g) Recommended to further implement COP20 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. This may include 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.

3. The Meeting took note of the 2023 MED QSR Roadmap and Needs Assessment presented in document UNEP/MED WG.463/3 and recommended to the Secretariat to ensure its streamlining in the UNEP/MAP Programme of Work 2020-2021 as stipulated by COP Decision IG.23/6.

4. The Meeting appreciated the work undertaken by the Secretariat to follow up on the list of

priority contaminants and further highlighted 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.

5. The Meeting took note of the guidance on application of the water typology UNEP/MED WG.463/Inf.5 and requested the Secretariat to use this document for training and capacity building purposes. Following presentation of the experience of Israel related to integrated GES assessment with regards to eutrophication, the Meeting recommended to the Secretariat to consider possible use of this national exercise. The Meeting finally recommended to the Secretariat to finalize the guidance on water typology with the view of submitting it to the next Meeting of the CorMon on Pollution Monitoring.

Agenda item 4: IMAP Implementation at National Level

6. The Meeting acknowledged the high level of commitment of, and the progress made by the Contracting Parties in implementation of the initial phase of IMAP (2016-2019) with regards to EO5 and EO9. The Meeting pointed out the need for further work to successfully implement the IMAP-based national monitoring programmes to deliver the required data needed to assess GES and contribute to 2023 MED QSR preparation.

7. Aware of the complexities and challenges faced, the Meeting highlighted the emerging need for further strengthened and coordinated national IMAP implementation, including specific support for monitoring in off shore areas, as well as capacity-building to fill the gaps clearly identified during IMAP implementation (e.g. standardization of the analytical methods in terms of QA/QC for organic pollutants (PAH, organochlorine pesticides and PCB), as well as bioaccumulation of contaminants in large predator fish; determination of the level of contaminants in the deep sea environment; building knowledge on emerging contaminants (e.g. pharmaceuticals products) in the marine biota and sediments; etc.).

8. The Meeting pointed out the importance of further efforts by the Contracting Parties to timely generate more complete and synchronized datasets for assessments.

Agenda item 5: Marine Pollution Monitoring Regional Data Base and Related Quality Assurance Issues; Data Standards and Data Dictionaries

9. Taking into account the status of existing and submission of new datasets related to marine pollution monitoring presented in documents UNEP/MED WG.463/3 and UNEP/MED WG.463/Inf.7, the Meeting pointed out the need for the Contracting Parties to undertake the following steps to depict the way forward:

- a) Report on all pending monitoring data collected up to 2018; and
- b) Correct errors of submitted data to the MED POL Database as a necessary step to improve the quality of monitoring data, as well as their assimilation into new IMAP (Pilot) Info System;

10. The Meeting recommended the Secretariat to implement the new Quality Assurance Scheme taking into account the existing mechanisms (e.g. quality templates and QA flagging categories) achieved partially in the past, and ensuring related information are accessible to the MED POL Focal Points.

11. The Meeting reviewed and agreed on the proposed Schemes for Quality Assurance and Control of Data related to Pollution as presented in document UNEP/MED WG. 463/10, by ensuring schemes of data quality assurance and quality assurance of data assessment are provided separately, and consequently recommended its submission to the forthcoming Meeting of the MED POL Focal Points to be held in May 2019.

12. The Meeting approved the proposed IMAP Common Indicators Data Standards and Data Dictionaries (DSs and DDs) and recommended their submission to the Meeting of the MED POL Focal Points.

13. In order to ensure finalization of the IMAP (Pilot) Info-System, the Meeting recommended to the Secretariat and INFO/RAC the realization of the following steps:

- a) Upload finalized DSs and DDs to IMAP (Pilot) Info System whilst providing the consequent changes to the data base structure;
- b) Ensure IMAP (Pilot) Info-System is enabled to receive in 2020 new datasets related to IMAP Common Indicators 13, 14, 17 and 21;
- c) Inform the Meeting of the MED POL Focal Points on the document related to MAP “Data Management Policy” developed by INFO/RAC and submitted for consideration of INFO RAC Focal Points;
- d) Prepare by the end of next biennium (2020-2021) DSs and DDs for other IMAP Common Indicators related to Pollution cluster; and
- e) Request the Secretariat in consultations with MED POL Focal Points to designate national experts that would actively contribute to the finalization of DSs and DDs for other IMAP Common Indicators related to Pollution cluster.

14. The Meeting pointed out the need for reporting data into MEDPOL database by laboratories which demonstrate their proficiency either through the MED POL organized PTs or through global PTs or internationally recognized inter laboratory comparisons (ILCs).

15. In order to further support capacity building of national laboratories to perform QA/QC measures, the Meeting recommended the Secretariat takes appropriate actions to ensure that the results of the PTs and TCs would guide further actions within quality assurance programme of UN Environment/MAP–MEDPOL, including identification of specific knowledge and technical needs of individual laboratories to apply good laboratory practices for analysis of organic contaminants and provision of appropriate standards and CRM.

16. The Meeting highlighted a necessity for MEDPOL Focal Points to follow up more closely with national laboratories participating in implementation of MEDPOL IV/IMAP monitoring programme and experts participating respectively in the PTs and TCs organized for trace elements and organic compounds, with a view of further supporting national efforts to implement the QA/QC measures.

17. Noting challenges on the confidentiality of PT results, the Meeting indicated a need for national laboratories to agree on a waiver of this confidentiality towards MED POL Focal Points. Meanwhile, MED POL will continue to communicate the results of PTs to MED POL Focal Points based on the findings presented in regional and national reports for which codes are assigned to respective participating laboratories.

Agenda item 6: Monitoring Protocols for IMAP Common Indicators Related to Pollution

18. The Meeting recommended the Secretariat to address the following issues during the biennium 2020-2021:

- a) Further focus on related good laboratory practices and assessment methods taking into account the permanent changes in literature, reference methods and sampling and assessment techniques, noting the need to ensure that monitoring provides data that enable assessments.
- b) Further work on assessment methodologies is needed as to guide monitoring strategies.;
- c) Set the reference conditions not only for chlorophyll-a, but also for nutrients, transparency and oxygen as minimum requirements;

- d) Work on assessment criteria for integrated chemical and biological assessment methods and test new research-proven tools for monitoring toxic effects;
- e) Update monitoring protocols to reflect the continuous technological advances in monitoring of marine environment, including monitoring strategy for offshore waters, and noting that published standardized methods and guidelines for sample collection and sample processing remain valid in general terms; and
- f) Regularly revise the methodologies for monitoring (e.g. instrumental analysis), including Quality Assurance, as well as ensure common methodologies to be agreed when necessary.

19. The Meeting requested the Secretariat 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.

20. The Meeting highlighted the importance of the nested approach to be further applied on existing four assessment subregions of the Mediterranean and their subdivisions at sea approach, as well as existence of a number of regular, irregular, national, MSFD/WFD-based and/or fit-for-purpose IMAP Common Indicators scales examples applied around the Mediterranean. To that end, the Meeting encouraged the identification and application of the nested assessment areas, including the finer assessment scales, using bottom-up approach (with the involvement of the Contracting Parties) with the view of confirming existing/extending the list of Mediterranean Seas for the purpose of preparing aggregated assessment products.

21. The Meeting indicated the need for building on the substantial knowledge acquired from marine environment monitoring in order to define the spatial and temporal scales for IMAP Common Indicator 13 (key nutrients), as well as to ensure their further elaboration for IMAP Common Indicator 14 and Common Indicators related to EO9.

22. Finally, the Meeting welcomed the re-establishment of an Online Working Groups (OWG) for Eutrophication (EO5) and Contaminants (EO9) encompassing scientists from around the Mediterranean working in collaboration with the Secretariat to further contribute to addressing the priorities for the spatial and temporal coverage of the Mediterranean.