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**Agenda item 4: Progress Achieved regarding the Implementation of the Programme of Work 2020- 2021 related to Land Based Pollution and Governance Themes**

**Progress achieved regarding implementation of the Programme of Work 2020-2021 related to Land-Based Pollution and Governance Themes**

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## **I. INTRODUCTION**

- A. This report covers the activities and outputs carried out in the period between January 2020 and May 2021. The progress report is composed of a narrative part and two Annexes.
- B. The narrative part highlights the results and progress achieved under the two themes of the Programme of Work 2020-2021 (Governance and Land and Sea-Based Sources of Pollution) executed by MED POL in cooperation with relevant Regional Activity Centres (RACs), where appropriate. 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 2018-2019. Annex II 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**

- a) Updating the annexes of the pollution-related LBS and Dumping Protocols, as well as preparing Dumping Protocol Guidelines implementation;
- b) Expanding and complementing NBB Guidelines to estimate, where there is no measurements, the pollutants releases deriving from diffuse sources, aquaculture and catchment runoffs in line with PRTR methodologies;
- c) Developing/updating the Regional Plans for Urban Wastewater Treatment, Sewage Sludge Management and Marine Litter Management;
- d) Conducting indicator-based mid-term evaluation of the updated National Action Plans
- e) Enhancing efforts for coordinated implementation of IMAP cluster on pollution and marine litter and continuing the support of national monitoring programmes on marine litter, contaminants and eutrophication in line with IMAP, the LBS Protocol and the Regional Plan on Marine Litter Management in the Mediterranean; including capacity building;
- f) Reinforcing the generation and reporting of new quality-assured national monitoring data to IMAP Info System;
- g) Updating thematic assessment products related to pollution and marine litter cluster of IMAP from land-based and sea-based sources of pollution.

## **III. OVERARCHING THEME: GOVERNANCE**

### **Governance meetings**

1. MEDPOL was represented in all ECP Meetings. Under the umbrella of ECP, MEDPOL contributed to the preparation of the UNEP/MAP Mid-term Strategy 2022-2027.
2. 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. Successful completion of ENI SEIS II Project was marked by official launching of two Joint Regional Reports on 21 September 2020, in joint media event.<sup>1</sup> The output of this project linked 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.

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

3. In line with the MAP Programme of Work adopted by COP21 for the biennium 2020-2021, and further to the activities stipulated in the Letter of Agreement (signed on 9 October 2019) with the International Maritime Organization (IMO), the Joint Regional Meeting on Best Practices on Implementation, Compliance and Enforcement related to Dumping Protocol was held on 02 March 2021. The meeting addressed (a) global and regional framework for dumping at sea activities; (b) Promoting Compliance and Enforcement on Dumping Protocol; (c) Best practices on technical aspects of Dumping protocol implementation.

4. In accordance with COP21 decision for a proposal for the possible designation of the Med SOX ECA, under the guidance of the SOX ECA(s) Technical Committee of Experts in line with the agreed road map, under the overall coordination of REPMEC, MEDPOL Programme was tasked by Coordinating Unit (CU) to lead the knowledge gathering on Land-based emissions control measures of SO<sub>x</sub> and PM in the Mediterranean coastal States (i.e., LOT2) which yielded to the final report on the completion of the knowledge gathering related to land-based emissions control measures of SOX and Particulate matter (PM) accepted in the Meeting of regional Experts held on 27-28 April 2021.

5. In concordance with PoW and budget endorsed by COP21, MED POL Programme developed three guiding documents namely on “Guideline on estimation techniques and applied methodologies for non-point sources release from agriculture” (UNEP/MED WG.505/3); “Guideline on estimation techniques and applied methodologies for point source releases from aquaculture” (UNEP/MED WG. 505/4) and “Guideline on estimation techniques and applied methodologies for non-point sources release from catchment runoffs” (UNEP/MED WG. 505/5) aiming to complement the NBB/PRTR Methodology for 5<sup>th</sup> Cycle of NBB. The documents were review and agreed by the Meeting on Evaluation of Implementation of National Action Plans and Assessments, and Tools to Estimate Pollutants Loads from Diffuse Sources held on 22-23 April 2021.

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

6. MED POL participated in the 8<sup>th</sup> Meeting of the Working Group of the Parties to the Protocol on PRTRs (16-18 December 2020, Geneva) where presented the needs and challenges for capacity building in relation to pollutant release and transfer registers (PRTRs) and experience gained during the 4<sup>th</sup> Cycle of NBB Update. MEDPOL also participated to 13<sup>th</sup> Meeting of the International PRTR Coordinating Group (ICG-13), on 27 January 2021 and shared on going efforts on updating the LBS annexes and development of estimation techniques and methodologies for NBB/PRTR for diffuse sources and aquaculture. 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 and share experience on estimation techniques for better data reporting.

7. MEDPOL joined the 4<sup>th</sup> Meeting of OECD WP-PRTR, held on 28-29 January 2020, under its ongoing collaboration with OECD on PRTR related issues. MEDPOL shared its experience stemmed from the 4<sup>th</sup> Cycle of NBB update and the ongoing work on LBS update annex and development of guidance documents pertinent to estimation techniques for releases from agriculture, aquaculture and catchment runoff.

8. Following the endorsement of the Roadmap and Needs Assessment for preparation of the 2023 Mediterranean Quality Status Report (2023 MED QSR Roadmap) by the Contracting Parties to the Barcelona Convention at the 7<sup>th</sup> Ecosystem Approach Coordination Group Meeting in Athens, Greece, 9 September 2019 and the 21<sup>st</sup> Ordinary Meeting (COP 21) in Naples, Italy, 2-5 December 2019 through Decision IG.24/4 - Assessment Studies, the work of the MEDPOL in 2020 -2021 has remained focused on planning and initiating the concrete operationalization of the Roadmap with regards to IMAP Pollution and Marine Litter Cluster.

9. UNEP/MAP and its MED POL Programme co-organized with the Italian Oceanographic Commission, the IOC-UNESCO, the European Commission and the Mediterranean Science Commission the Regional Workshop “The Mediterranean Sea We Need for the Future We Want” that was held from 21 to 23 January 2020, in Venice, Italy, in the framework of the preparations for the United Nations Decade of Ocean Science for Sustainable Development 2021-2030 (Decade). More than 150 participants representing a good balance among different stakeholders (government, scientific community, private sector, regional and international organizations) provided significant contribution to map the priority needs and responses of relevance for the Mediterranean region within preparation of the Implementation Plan of the UN Decade of Ocean Science for Sustainable Development 2021-2030. The Regional Workshop was structured along the six societal objectives of the UN Decade, which were addressed through six working groups. During this three-days gathering, the UNEP/MAP system contributed to all six working groups whereby the following most important messages and recommendations were provided in relation to UNEP/MAP’s commitment towards stronger science-policy relationship within implementation of the Barcelona Convention: i) the Mediterranean environment should be under permanent review; ii) a comprehensive ocean observing system; iii) a quantitative understanding of ocean ecosystems and their functioning; iv) IMAP as a basis for Mediterranean countries for harmonized and common assessment of marine and coastal environment and v) innovative knowledge and technologies to support reliable and cost-effective monitoring and assessment of the state of marine environment (promoting inter-disciplinary research; improvement of the assessment criteria to support integrated GES assessment; strengthening of optimal monitoring practices nationally and sub-regionally applicable; remote sensing and satellite techniques; holistic mapping of the ocean; applying ICZM and MSP tools; promoting citizen science and the innovative experiences of their involvement for ML monitoring). In order to contribute to implementation of the Implementation Plan of the UN Decade, the Secretariat - MEDPOL has furthermore identified the strategic directions and orientations to guide science science-policy interface within implementation of new Mid-term strategy, as well as participated in preparation of the Science We Need for the Mediterranean Sea We Want (SciNMeet) Proposal Programme that has been submitted within the 1<sup>st</sup> Ocean Decade Call for Action of UNESCO in the contexts of establishing implementation framework for the Implementation Plan of the UN Decade.

10. MED POL continues to provide substantive contribution to implementation of the ecosystem approach (EcAp) by building on the achievements of MSFD implementation, as well as to filling the gaps raised by the 2017 MED QSR. In period 2020-2021 the synergies of IMAP Pollution Cluster and MSFD implementation have been further maximized, including use of relevant recent development under MSFD in order to contribute to addressing the cross-cutting issues of IMAP, as well as updating the assessments criteria related to IMAP Pollution and Marine Litter Cluster. MED POL contributed to an update of present status of relevance for revision of GES Decision within the Drafting Group on GES. MED POL actively participated at the following meetings of the technical bodies established under EU-MSFD: EMODnet-CMEMS Thematic Workshop on Coastal Issues (June 2020); 14<sup>th</sup> Meeting of the Technical Group on Marine Litter (TGML), (June 2020); 15<sup>th</sup> Meeting of the MSFD Common Implementation Strategy Technical Group on Underwater Noise (TG-Noise), (June 2020); MSFD Expert Network on Contaminants annual (Webex) meeting (April 2020); Meeting related to deselection of Priority Substances (June 2020); Drafting Group on Good Environmental Status (DG GES) Workshop on Thresholds (September, 2020); MSFD Expert Network on Contaminants Core group: Significant oil spills (June 2020); 16<sup>th</sup> Meeting of the MSFD Common Implementation Strategy Technical Group on Underwater Noise (TG-Noise), (October 2020); 23<sup>rd</sup> and 24<sup>th</sup> Meetings of the Working Group on GES (October 2020 and April 2021); Workshop on GES related to Sea Turtles, (October 2020); Training for Contaminants organized in collaboration of JRC/DG on Contaminants and Swedish Env Agency (February - April 2021).

**Strategic Outcome 1.5: MAP knowledge and MAP information system enhanced and accessible for policymaking, increased awareness and understanding**

11. The update and upgrade of the IMAP Info System is proceeding. The IMAP Info System will be able to accommodate the submission of data for all Common Indicators by June 2022, in time for the Contracting Parties to submit new data sets for finalization of 2023 MED QSR.
12. During 2020 re-upload of historical MED POL data from MEDPOL Database into IMAP Info System has been finalized from INFO/RAC following revision undertaken by MEDPOL to allow for compatibility of these data with the new data reported in IMAP Info System in line with IMAP Data Standards and Dictionaries (DSs and DDs).
13. Upon finalization of the testing phase, in June 2020 a call was open for the countries regarding mandatory reporting of monitoring data into IMAP Info System. However, only a few new data sets have been received for IMAP Common Indicators 13,14 and 17, as presented in Section 2.2. and Annex II. It must also be noted that present level of data reporting is low and does not facilitate 2023 QSR preparation.
14. A lack of national capacities to report data into IMAP Info System has been noted. Accordingly, certain technical support was provided from INFO/RAC, with contribution of MEDPOL, in order to facilitated data reporting, whereas more substantial assistance to the countries is planned from INFO/RAC in upcoming biennium to strengthen national capacities for data control and reporting.
15. The proposals of DSs and DDs have been prepared for IMAP Common Indicators 18 and 20 from MEDPOL within elaborated Monitoring Guidelines/Protocols for Reporting Monitoring Data. The proposals have been considered by the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (26-28 April, 2021) which requested the INFO/RAC to take into account additional reporting parameters as they have been provided during the Meeting, as well as further inputs that could be suggested from the Online Working Group on Contaminants.

**Strategic Outcome 1.6: Raised awareness and outreach**

16. MEDPOL continued to contribute to the regional initiatives in line with the activities defined under of the UNEP/MAP Programme of Work (PoW). The most important activities undertaken in that context include the following: i) support provided to ACCOBAMS Permanent Secretariat regarding organization of the workshops within Quiet Med 2 Project; ii) contribution to the final conference of HARMONIA Project; iii) participation at the EEA meetings organized for Copernicus and EMODNet Projects; iv) identification of the areas of cooperation for closer cooperation with EMODNet; v) building the interrelations of International Ocean Governance process under EU actions with preparation of new MTS; vi) creating synergies between UNEP/MAP activities and UNEP Capacity Development & Innovation Branch, SDGs and Statistics Unit; vii) consultation on the World Environment Situation Room (WESR) in relation to further upgrade of Info MAP System; viii) establishing interrelation of Global Reporting and Assessment of the State of the Marine Environment with IMAP implementation.
17. MED POL is also implementing significant number of activities as part of externally funded projects with varying responsibilities. These include:
  - a. The GEF funded “Mediterranean Sea Programme (MedProgramme) Enhancing Environmental Security.” MED POL is involved under the first and second components of CP1.1 - Phase I (Chemicals/Waste and TDA).
  - b. EU-funded project “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” (IMAP-MPA Project).
  - c. EU-funded project “Support to Efficient Implementation of the Ecosystem Approach-based Integrated Monitoring and Assessment of the Mediterranean Sea and Coasts” and for delivery of data-based 2023 Quality Status Report in synergy with the EU MSFD (EcAp-MED III).”



- d. Marine Litter MED II project co-executed by MED POL and MAP Regional Activity Centers (SPA/RAC, SCP/RAC and REMPEC); as well as the Commission on the Protection of the Black Sea Against Pollution (BSC).

#### **IV. CORE THEME: LAND AND SEA-BASED POLLUTION**

##### **2.1 Update of Annexes of LBS and Dumping**

18. The 21<sup>st</sup> Ordinary Meeting of the Contracting Parties (COP-21) adopted Decision IG.24/10 which called for updating of the Annexes to the LBS and Dumping Protocols of the Barcelona Convention. In line with this mandate, the Secretariat developed proposals for updating the annexes of the both Protocols. These new proposals build on previous work stipulated by Decision IG.23/14 (adopted in the biennium 2018-2019), which requested the Secretariat to update the Annexes of the Pollution-Related Protocols to better take into account GES and to enhance synergies with the relevant regional and global developments

##### **Updating the Annexes of the LBS Protocol**

19. In line with this mandate of COP21, MEDPOL Programme developed proposals for updating the four Annexes of the LBS Protocol, further to an in-depth review of proposals made during the 2018-2019 biennium, while introducing additional amendments to better take into account the Ecosystem Approach with the aim to achieve and/or maintain Good Environmental Status (GES). These updates include the provisions of the Marine Strategy Framework Directive (MSFD); the Stockholm, Minamata and Rotterdam Conventions; the relevant provisions under other Regional Seas Conventions; the developments under the Global Programme of Action (GPA) aiming to enhance synergies and further aligning provisions of relevance to the Mediterranean with the annexes to the LBS Protocol. Moreover, the proposed updates take into consideration sectors of activities identified in other regional regulations in line with their agreed prevailing nomenclature with PRTR, UNSTAT and EUROSTAT. These proposals were reviewed and agreed in Meeting of the Working Group of Experts on Updating the Annexes to the LBS Protocol held remotely on 10 December 2020. The Working Group recommended submission of the agreed updated text of the Annexes to the MED POL Focal Points Meeting for its approval.

##### **Updating the Annex of the Dumping Protocol**

20. In line with this mandate to update the Annex of the Dumping Protocol, MEDPOL Programme updated the Annex of the Protocol and developed proposals for the consideration of the Working Group of experts. The proposed updates include a number of changes which strengthen the factors and considerations guiding the permitting process to ensure that impacts of dumping are minimized to the extent possible with the view to maintaining the good environmental status and that dumping is permitted as a last resort in case there are no other management options available. These proposals were reviewed and agreed on 9 February 2021 by the Working Group of Designated Experts which reviewed the proposed amendments and recommended submission of the agreed text of the Annex to the MED POL Focal Points Meeting for its approval.

##### **2.2 Preparation of three new/updated Regional Plans**

21. The 21<sup>st</sup> Ordinary Meeting of the Contracting Parties (COP-21) to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols (Naples, Italy, 2-5 December 2019) adopted Decision IG.24/10 which called for developing Regional Plans for Urban Wastewater Treatment, Sewage Sludge Management, and for updating the Regional Plan for Marine Litter Management.

22. Through this Decision, COP-21 endorsed the Main Elements which specify the structure and further details of the scope and objective of this Regional Plan, and requested the Secretariat to establish Working Groups of designated Experts in line with the Terms of References endorsed by the 89<sup>th</sup> Meeting of the Bureau to the Contracting Parties. The objective of the Working Groups is to deliver the new/updated Regional Plans for consideration of the MED POL Focal Points Meeting in

May 2021. Further to this mandate, MED POL prepared draft proposals of the Regional Plans for the consideration of the Working Groups of Experts and coordinated for holding the two Working Group Meetings for each Regional Plan.

Regional Plan on Urban Wastewater Treatment

23. The 1<sup>st</sup> Working Group Meeting was held on 9-10 December 2020. The Meeting reviewed and agreed on the draft Regional Plan and recommended a number of changes. The Meeting also agreed to allow the members of the Working Group to provide written inputs after the Meeting on the proposed deadlines for implementation of measures which were not concluded in the Regional Plan; technical details of the subject matter addressed in the Regional Plan including tabulated Emission Limit Values and related technical data and information; as well as scope and outline of contents of technical Appendices which were at the drafting stage. Comments were obtained from five Contracting Parties. An updated document was prepared for submission to the 2<sup>nd</sup> Working Group Meeting to be held on 25-26 May 2021. The Second Meeting of the Working Group is expected to review the above elements of the Regional Plan and recommend the final version to the MED POL Focal Points Meeting to be held back-to-back with this meeting (i.e. 27-28 May 2021).

Regional Plan on Sewage Sludge Management

24. The 1<sup>st</sup> Working Group Meeting was held on 9-10 December 2020. The Meeting reviewed and agreed on the draft Regional Plan on Sewage Sludge Management and recommended a number of changes. The Meeting agreed to allow members of the Working Group to provide written inputs after the Meeting on specific aspects of the Regional Plan including technical details of the subject matter; tabulated Emission Limit Values and related technical data and information; as well as scope and outline of contents of the Appendices which were at the drafting stage. Comments were obtained from four Contracting Parties. An updated document was prepared for submission to the 2<sup>nd</sup> Working Group Meeting to be held on 25-26 May 2021. The Second Meeting of the Working Group is expected to review the above elements of the Regional Plan and recommend the final version to the MED POL Focal Points Meeting to be held back-to-back with this meeting (i.e. 27-28 May 2021).

Updated Regional Plan on Marine Litter Management

25. The 1<sup>st</sup> Working Group Meeting was held on 31 March and 1 April 2021. The Meeting reviewed the proposed articles and related measures of the Regional Plan and incorporated several technical modifications and amendments. At the conclusion of the Meeting, it was agreed that the Members of the Working Group would continue on-line consultations after the meeting regarding amendments entailing deadlines and/or specific commitments under specific Articles pertaining to the measures of the Regional Plan. Inputs and comments were received from four Contracting Parties; and two MAP Partners. The Second Meeting of the Working Group is expected to review the above elements of the Regional Plan and recommend the final version to the MED POL Focal Points Meeting to be held back-to-back with this meeting (i.e. 27-28 May 2021).

Assessment of costs of implementation of the main measures proposed in the new/ upgraded Regional Plans and associated socioeconomic benefits

26. In parallel with the upgrade/ development of the new Regional Plans on urban wastewater treatment, sewage sludge and marine litter management, the Secretariat has undertaken a study to enable the Parties to assess the costs of implementation of the main regional and national measures proposed in the three Regional Plans and associated socioeconomic benefits.

27. The assessment is based on the data collected by the experts of the Working Group on Upgrading the Regional Plan on Urban Wastewater Treatment and developing a new Regional Plan on Sewage Sludge Management, and the Working Group on Upgrading the Regional Plan on Marine Litter Management, in line with the overall guidance/ questionnaires provided by the Secretariat.

28. This assessment will be presented to the Second Meeting of the Working Group which is expected to review the draft assessment document and its findings and to provide its comments and substantive inputs, with the aim of submission to the MED POL Focal Points Meeting (27-28 May



2021) as an information document to be used by the Contracting Parties in estimating the costs and socioeconomic benefits for the implementation of the three Regional Plans.

### **2.3 Preparation of state of play assessments for the development of new Regional Plans**

#### *Assessment of Agricultural practices and discharged pollutants reaching the Mediterranean marine environment*

29. The 21st Meeting of the Contracting Parties to the Barcelona Convention COP21 (Napoli, Italy, 2-5 December 2019) approved the submission of a new Regional Plan on Agriculture Management to COP 23 (December 2023). In preparation for the development of this Regional Plan, the Programme of Work (PoW) and Budget for the biennium 2020-2021, which was adopted in Decision IG.24/14, mandated MED POL in Activity 2.4.3.1(c) to undertake an “assessment of agricultural practices and discharged pollutants reaching the Mediterranean marine environment.”

30. The assessment was delivered to the “Meeting on Evaluation of Implementation of National Action Plans and Assessments, and Tools to Estimate Pollutants Loads from Diffuse Sources” (22-23 April 2021). The assessment provides an overview of the agriculture sector in the Mediterranean; impacts of the sector on the marine environment; commonly applied agricultural practices in the Mediterranean; and Best Available Techniques and Best Environmental Practices for the Agriculture Sector. The assessment includes an evaluation of current and potential level of implementation (or non-implementation) of proposed measures included in the main elements for the Regional Plan on Agriculture Management. It also provides recommendations for additional complementary measures and proposals to improve BAT and BEP for agricultural practices in the Mediterranean.

31. The Meeting reviewed the draft assessment document and provided its comments and inputs, recommending submission of the agreed draft to the MED POL Focal Points Meeting in May 2021 for their approval “to use as a background document” for preparation of the related Regional Plan.

#### *Assessment of aquaculture practices and discharged pollutants reaching the Mediterranean marine environment*

32. The 21st Meeting of the Contracting Parties to the Barcelona Convention COP21 (Napoli, Italy, 2-5 December 2019) approved the submission of a new Regional Plan on Aquaculture Management to COP 23 (December 2023). In preparation for the development of this Regional Plan, the Programme of Work (PoW) and Budget for the biennium 2020-2021, which was adopted in Decision IG.24/14, mandated MED POL in Activity 2.4.3.1(c) to undertake an “assessment of aquaculture Practices in the Mediterranean and their Impact on the Marine Environment.”

33. The assessment was delivered to the “Meeting on Evaluation of Implementation of National Action Plans and Assessments, and Tools to Estimate Pollutants Loads from Diffuse Sources” (22-23 April 2021). The assessment produced in coordination and support of Plan Bleu Regional Activity Centre, provides an overview of the aquaculture sector in the Mediterranean; state of play of aquaculture facilities and current practices in the Mediterranean; impacts of significant aspects of the aquaculture sector in relation to practices common to onshore and offshore aquaculture; culture practices in onshore and offshore aquaculture; legal and institutional measures in place for regulating the onshore and offshore aquaculture; and currently applied Best Available Techniques (BAT) and Best Environmental Practices (BEP) in Mediterranean aquaculture. The assessment includes an evaluation of current and potential level of implementation (or non-implementation) of proposed measures included in the main elements for the Regional Plan on Aquaculture Management including recommendations for additional complementary measures and proposals to improve BAT and BEP for onshore and offshore aquaculture.

34. The Meeting reviewed the draft assessment document and provided its comments and inputs, recommending submission of the agreed draft to the MED POL Focal Points Meeting in May 2021 for their approval “to use as a background document” for preparation of the related Regional Plan.

Assessment of the state of storm water management in the Mediterranean

35. The 21st Meeting of the Contracting Parties to the Barcelona Convention COP21 (Napoli, Italy, 2-5 December 2019) approved the submission of a new Regional Plan on Storm Water Management to COP 23 (December 2023). In preparation for the development of this Regional Plan, the Programme of Work (PoW) and Budget for the biennium 2020-2021, which was adopted in Decision IG.24/14, mandated MED POL in Activity 2.4.3.1(c) to undertake an “assessment of state of storm water management in the Mediterranean.”

36. The assessment was delivered to the “Meeting on Evaluation of Implementation of National Action Plans and Assessments, and Tools to Estimate Pollutants Loads from Diffuse Sources” (22-23 April 2021). The assessment provides an overview of the urban storm water sector in the Mediterranean; state of play of urban storm water networks and discharged pollutants reaching the Mediterranean; impacts of significant aspects of the urban storm water management with focus on storm water management plans; risk management; design, operation and maintenance aspects; run-off water, sustainable design elements; availability of technical standards, and regulatory measures governing design, operation and maintenance of urban storm water networks in the Mediterranean. The assessment includes also an evaluation of current and potential level of implementation (or non-implementation) of proposed measures foreseen for the Regional Plan on Urban Storm Water Management including recommendations for additional complementary measures and proposals to improve BAT and BEP for urban storm water management. The assessment was based in part on individual countries’ surveys undertaken with the kind support of the EU-funded Water and Environment Support in the ENI Southern Neighborhood Region (WES).

37. The Meeting reviewed the draft assessment document and provided its comments and substantive inputs, recommending update of provided data and information for some countries prior to submission of the agreed draft to the MED POL Focal Points Meeting in May 2021 for their approval “to use as a background document” for preparation of the related Regional Plan.

## **2.4 Implementation of IMAP Pollution Cluster**

Progress in IMAP implementation at national level

38. The most important findings on present status of IMAP implementation at national level are presented in the Meeting document UNEP/MED WG.509/10, while details are elaborated in UNEP/MED 509/Inf 14. In that context, an analysis was undertaken for the national IMAP Pollution and Marine Litter monitoring programmes of Algeria, Bosnia and Herzegovina, Egypt, Israel, Lebanon, Libya, Montenegro, Morocco and Tunisia, as well as for the monitoring programmes prepared by the Contracting Parties that are EU Member States within 1<sup>st</sup> cycle of MSFD implementation.

39. The following key findings were found regarding the status of the National IMAP Pollution and Marine Litter monitoring programmes of the Contracting Parties: i) the eutrophication parameters, as well as the parameters related to the concentration of heavy metals and organic compounds in surface sediments are currently monitored by the Contracting Parties at relatively acceptable level, whereas marine litter can be considered as a recently introduced set of monitoring parameters for IMAP; ii) in most cases there is a very good compatibility between the monitoring areas established for Ecological Objectives 5 and 9, while they are less compatible with the monitoring areas for Ecological Objective 10; however these areas are established close to areas of pollution monitoring; iii) regarding time scales, most monitoring programmes considered appropriately the time frame and the risk-based approach, and the high-pressure areas and sensitive areas are identified for monitoring as prioritized areas; however, the integration of risks is not fully ensured within all national monitoring programmes; v) the National IMAP Pollution and Marine Litter monitoring programmes do not specify how the integration and aggregation of the monitoring efforts and assessment products should be carried out for GES assessment.

40. Within ongoing planning of the new monitoring programmes, the Contracting Parties that are Member States of the EU made efforts to adapt their pollution monitoring programmes related to

Descriptors D5, D8, D9 and D10 to the existing non-MSFD policy requirements, including the emerging needs related to building the synergies between implementation of MSFD and IMAP. The analysis was mainly undertaken for the monitoring programmes that were established during the 1<sup>st</sup> cycle of MSFD implementation, considering also other relevant sources (i.e. EU or national projects (e.g. ACTIONMED, MEDCIS, MEDREGRION). A comparison of the national MSFD monitoring programmes with IMAP requirements contributes to further synchronization of the policies, good practices and the innovative monitoring standards related to MSFD and IMAP implementation.

41. Furthermore, actions were undertaken to identify specific knowledge and technical needs of individual laboratories of the Contracting Parties to apply good laboratory practices for analysis of trace elements and organic contaminants as requested by the Meeting of CorMon on Pollution Monitoring (2 -3 April 2018, Podgorica, Montenegro). Along with the missions to two IMAP Pollution Cluster competent laboratories that were realized in 2020, the capacities of national laboratories in relation to monitoring of IMAP Common Indicators 13, 14, 17, 18 and 20 were assessed as provided in UNEP/MED WG.492/10 and UNEP/MED WG.492/Inf.10 that were submitted for consideration of the Meeting of CorMon on Pollution Monitoring (26-28 April, 2021). The assessment findings related to 36 national IMAP Pollution Cluster competent laboratories refer to their capacities to apply the analytical methodologies, as recommended in relevant IMAP Monitoring Guidelines/Protocols. This assessment was based on the questionnaires that were distributed through respective MED POL Focal Points to designated national IMAP Pollution Cluster competent laboratories.

42. Although only laboratories from 7 countries replied, this exercise gave a good insight into their capability to comply with IMAP Guidance Factsheets and new Monitoring Guidelines/Protocols and problems laboratories face. The specific knowledge and technical needs of individual laboratories were recognized regarding implementation of IMAP Common Indicators 13, 14, 17, 18 and 20.

#### CORMON Meetings

43. With the aim to review and exchange information on the status of IMAP implementation of with regards to Ecological Objectives 5, 9 and 10, and to exchange the best practices on national implementation of IMAP and related challenges, MED POL organized recently three CorMon meetings: (i) Pollution and Marine Litter sessions within the Integrated Meetings of the Ecosystem Approach Correspondence Groups on Monitoring (1-3 December 2020); (ii) the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (26 - 28 April 2021) and (iii) the Meeting of the Ecosystem Approach Correspondence Group on Marine Litter (30 March 2021). The Meetings of CorMons Pollution Monitoring and Marine Litter reviewed progress achieved on IMAP implementation at national and regional levels and provided guidance to MED POL on the way forward towards standardization and harmonization of monitoring practices and preparation of the assessment inputs for 2023 MED QSR.

#### Cross cutting issues related to IMAP Pollution Cluster

44. In line with the Programme of Work 2020, the MED POL Programme prepared the Proposal of Integration and Aggregation Rules for Monitoring and Assessment for IMAP Pollution and Marine Litter Cluster, as provided in the Meeting documents UNEP/MED 509/10 and UNEP/MED 509/Inf 14. The preparation and possible agreement on integration and aggregation rules for monitoring and assessment represents an important milestone of the 2023 MED QSR Roadmap implementation (Decision IG.24/4 of COP21).

45. Following on the discussion and related conclusions of the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (26-28 April 2021), the following proposals elaborated in above documents are submitted for consideration of MED POL Focal Points: i) the proposal of the methodology for proposing the spatial scales of assessment from the scales of monitoring as defined in national IMAP Pollution and Marine Litter Cluster – based monitoring programmes, considering also the areas of assessment as defined in national MSFD monitoring strategies by the Contracting Parties which are EU Member States; ii) the rules for integration of monitoring and assessment areas within the IMAP Pollution and Marine Litter Cluster (EO5, EO9,

EO10); and iii) the rules for aggregation - integration of the assessments for specific IMAP Common Indicators/Ecological Objectives towards integrated GES assessment for IMAP Pollution and Marine Litter Cluster along with application of the assessment criteria and DPSIR approach within the nested scheme. Although meeting document UNEP/MED 509/10 was recommended for consideration of the Meeting of CorMon Pollution, work on its further elaboration will continue, including through the Online working Group on Contaminants in an attempt to propose an integrated GES assessment based on actual monitoring data for EO5, EO9 and EO10.

46. The initial proposal for assignment to the most appropriate scales of assessment of elements to be assessed for IMAP Pollution and Marine Litter Cluster, as agreed by the Meeting of CorMon on Pollution Monitoring organized in 2019 and the 7<sup>th</sup> Meeting of EcAp Coordination Group, was furthermore elaborated by proposing upgraded aggregation scheme for the areas of assessment for EO5, EO9 and EO10 within the nested approach. In that context the rules for integration of assessments within the nested approach have been proposed for all IMAP Pollution and Marine Litter Cluster Common Indicators.

47. In order to define the finer scales of assessment for the national part of the sub-divisions, the geographical information in the form of GIS based layers were proposed for provision from the countries, along with application of the criteria for coupling the geographical information.

48. The proposal of interrelations of IMAP Common indicators of EO5, EO9 and EO10, as well as their interrelations with EO1, EO7 and EO8 were elaborated in order to ensure cost-effective and holistic monitoring programmes in line with the i) most important findings on analysis of national IMAPs; ii) the interrelations of EOs with predominant pressures and iii) relevant best practices related to implementation of the EU MSFD and IMAP monitoring practices. Furthermore, such defined interrelations were applied on national IMAP Pollution-based monitoring programmes/MSFD monitoring programmes.

#### Upgrading the assessment criteria

49. The Meeting of CorMon Marine Litter (30 March 2021) agreed on the updated Baseline Values (BV) and proposed Threshold Values (TV) for IMAP Common Indicator 22 (beach marine litter), as provided in the Meeting document UNEP/MED WG.509/11, and recommended their submission for consideration of the Meeting of MED POL Focal Points. This document elaborates the conceptual and methodological approaches for defining Baseline Values (BV) and Threshold Values (TV) that are then applied for updating/proposing BVs and TVs in order to ensure a progress towards integrated GES assessment of EO10.

50. In line with Decision IG.23/6 related to 2017 Mediterranean Quality Status Report (MED QSR) adopted at COP 20 (Tirana, Albania, December 2017), the Contracting Parties and the Secretariat are encouraged to test the following updated assessment criteria for indicative purposes in the different contexts that exist in the Mediterranean: i) BAC and EAC for trace metals (Cd, Hg, Pb) in sediments and in biota (mussel and fish); ii) BAC for PAHs in biota (mussel); iii) EAC for organochlorinated compounds in sediment and iv) BAC and EAC for biomarkers in mussel. In addition, the Decision IG. 23/6 maintained the following assessment criteria as endorsed by the Decisions IG.22/7 (Athens, Greece, February 2016): i) EAC for sediments and mussel; ii) EAC for a group of organochlorinated compounds in sediment and biota (mussel and fish) complementing updated values and iii) BACs and EACs for biomarkers in mussel, complementing updated values

51. Further to the 2019 update of the sub-regional Mediterranean BAC values for heavy metals in biota and sediment, in 2021 MED POL has undertaken further actions to upgrade the assessment criteria in line with the Programme of Work 2020-2021 adopted by COP21 (Naples, Italy, December 2019).

52. The proposals for upgrading the BC and BAC values for IMAP Common Indicator 17 and possible approaches for upgrade of EAC for IMAP Common Indicators 17, 18 and 20 were prepared for consideration of the Meeting of CorMon Pollution Monitoring (26-28 April 2021), as provided in the Meeting document UNEP/MED WG. 509/12, along with details elaborated in UNEP/MED



WG.509/Inf.15. Their calculation is based on new national monitoring data that have not been previously used for calculation of the assessment criteria in the 2017 and 2019 assessments.

53. The proposed upgraded assessment criteria were submitted for consideration of the Meeting of CorMon Pollution (26-28 April 2021). Considering the evolving nature of this process, the Meeting of CorMon Pollution agreed to recommend use of the Meeting document UNEP/MED WG. 509/12 as a basis towards development and testing of the methodologies for GES assessment related to Ecological Objectives 9 and 10, and recommended its submission to the Meeting of the MED POL Focal Points for its consideration, while work on its further elaboration will continue, including within the Online Working Group (OWG) on Contaminants (EO9).

54. To that aim the Contracting Parties were requested to support present work including in the framework of the OWG for EO9 by: i) undertaking analysis of proposed values of the assessment criteria against the new monitoring data to be reported into IMAP Pilot Info System, as well as to be made available through another relevant sources; ii) supporting improvements of existing methodology for calculation of the assessment criteria; and iii) supporting preparation of agreed and integrated GES assessment methodology for IMAP EO9, as provided in the Meeting documents UNEP/MED WG. 509/13 and UNEP/MED WG.509/Inf.16.

55. The proposals for upgrading the BC and BAC values for IMAP Common Indicator 17 and possible approaches for upgrade of EAC for IMAP Common Indicators 17, 18 and 20 were prepared for consideration of the Meeting of CorMon Pollution Monitoring (26-28 April 2021). The proposed upgraded assessment criteria were submitted for consideration of the Meeting of CorMon Pollution (26-28 April 2021).

56. As to further progress with development of region-wide harmonized criteria for reference conditions and threshold/boundaries values for key nutrients in water column, as it was requested by Decision IG.23/6 related to 2017 Mediterranean Quality Status Report (MED QSR), the proposals for i) setting the reference conditions and boundary values for Dissolved Inorganic Nitrogen (DIN) and Total Phosphorous (TP); and ii) testing practical application of the methodological approaches for their calculation in relevant sub-areas were prepared for consideration of the Meeting of CorMon Pollution (26-28 April 2021).

57. Due to nitrogen/phosphorus limitations present in the Mediterranean (i.e. restricted measurements of Dissolved Inorganic Phosphorous - DIP), as well as due to limited data availability and related demanding statistics, these documents sets the basis for further elaboration of the following methodologies in relevant sub-areas: i) methodological approach developed for Adriatic Sea; ii) Best Practice Guide for nutrients toolkit (JRC) and iii) FAN/FLU index (Spain). In addition, the practical application of the methodological approach is showcased for Adriatic Sea, in order to set the reference conditions and boundary values for Dissolved Inorganic Nitrogen (DIN) and Total Phosphorous (TP).

58. Considering the evolving nature of the document UNEP/MED WG.509/13, the Meeting of CorMon Pollution agreed to recommend its use as a basis for progressing towards setting the assessment criteria for DIN and TP, and recommended its submission to present Meeting of the MED POL Focal Points for its consideration. To that aim, the Contracting Parties were invited to support this work in the framework of the On-line working group on Eutrophication (EO5).

59. To that aim, the Contracting Parties were invited to support this work in the framework of the On-line working group on Eutrophication (EO5) through: i) analysis of available/ new monitoring data; and ii) elaboration and testing of proposed methodological approaches for setting boundary values, including relevant statistical approaches, as suitable for specific areas in Mediterranean sub-regions/sub-areas.

Status of data availability for upgrade/setting of the assessment criteria

60. New data not used previously neither for the 2017 MED QSR nor for update of the assessments for EO9 within preparation of the 2019 SoED were collected for upgrading the assessment criteria for contaminants from the following four data sources: i) new data from IMAP Pilot Info System that include national monitoring data uploaded in the system during its testing phase,

and in particular after launching formal call for reporting of data in June 2020; ii) new data from the MED POL Database not used previously for calculation of assessment criteria; iii) the EU data center (European Marine Observation and Data Network - EMODnet); and iv) published papers collected from the scientific literature.

61. For calculation of the assessment criteria for DIN and TP data were available from the following three data sources: i) new data from IMAP Pilot Info System that include national monitoring data reported during its testing phase, and in particular after launching formal call for data reporting in June 2020; ii) all monitoring data from MED POL Database (i.e. data reported before 2012 that were uploaded into MED POL Database along with data reported to MED POL outside MED POL Database in the format of old metadata templates in period 2013-2019) that are migrated into IMAP Pilot Info System and iii) the EU Data Center (European Marine Observation and Data Network - EMODnet).

62. Annex I provides an overview of new datasets that are available in IMAP Pilot Info System and MEDPOL Database for calculation of the assessment criteria for contaminants and DIN and TP. Details on data availability in IMAP Info System, as well as in relevant external sources, are elaborated in the Meeting documents (UNEP/MED WG. 509/12 and UNEP/MED WG. 509/13, as well as UNEP/MED WG.509/Inf.15 and UNEP/MED WG.509/Inf.16) submitted for consideration of present Meeting.

*Interlaboratory comparison and assessment of the capacities of national laboratories responsible for monitoring of IMAP Common Indicators 13, 14, 17, 18 and 20*

63. The Marine Environmental Studies Laboratory (MESL) of the International Atomic Energy Agency organized in collaboration with MED POL the 2019 and 2020 Proficiency Tests (PTs), along with related Training Courses on the analysis of trace elements and organic pollutants in marine samples. As a result, actions were taken to identify specific knowledge and technical needs of individual laboratories aiming to apply good laboratory practices for analysis of trace elements and organic contaminants as requested by the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (2-3 April 2018, Podgorica, Montenegro). The results achieved in 2019 and 2020 Proficiency Tests were considered by the Meeting of CorMon Pollution Monitoring (26-28 April 201) for making recommendations on the way forward. The full 2019 PT reports, along with detailed National Reports, have already been shared with respective MED POL Focal Points in period May-June 2020.

64. The results achieved in 2019 and 2020 Proficiency Tests are presented in the Meeting documents UNEP/MED WG. 509/Inf. 9 and UNEP/MED WG. 509/Inf.10 that were considered by the Meeting of CorMon Pollution Monitoring (26-28 April 201) for making recommendations on the way forward. This documents provide an overview of the outcomes of the following activities undertaken in 2019 and 2020 to implement comprehensive and interactive strategy for the quality assurance and quality control related to IMAP Common Indicator 17: i) organization of the trace elements and organic Proficiency tests (PTs); ii) Preparation of the good laboratory practice (GLP) training courses; and iii) organization of the expert missions to laboratories in special need to support strengthening of their capacities.

65. The full 2019 PT reports, along with detailed National Reports, have already been shared with respective MEDPOL Focal Points in period May-June 2020. The National Report provides an overview of the key results of the PTs. They have been prepared to provide details of the performance of the laboratories regarding their participation in proficiency testing in line with the conclusions of the Meeting of the CorMon on Pollution Monitoring (2-3 April 2019). The national reports included the codes assigned to each of the participating laboratories, whilst MEDPOL Focal Points have been asked to treat the codes of the laboratories as confidential information and not share any information related to a specific laboratory which participated in the PT exercise in part or whole with other laboratories. Furthermore, the individual evaluation reports have been shared by MESL with each specific laboratory that participated in 2019 PT. The 2019 and 2020 PTs are provided in information documents UNEP/MED WG.509/Inf.10, while all individual evaluation reports have already been shared with the laboratories. The National Reports for all 2020/2021 activities, including the 2020 PTs



will be prepared for submission to respective MEDPOL Focal Points respectively to designated IMAP laboratories in November 2021.

66. The Meeting of CorMon Pollution Monitoring (26-28 April 2021) generally agreed with the findings of 2019 and 2020 Reports on the Proficiency Testing and Training Courses.

*Monitoring Guidelines/Protocols for IMAP Common Indicators 13, 14, 17, 18 and 20*

67. In line with the Programme of Work 2020-2021 adopted by COP21, as well as following up on the conclusions of the Meeting of CorMon on Pollution Monitoring (2-3 April 2019), MED POL prepared the Monitoring Guidelines related to IMAP Common Indicators 13, 14, 17, 18 and 20, as they will be provided in the Meeting documents UNEP/MED WG.509/15 to UNEP/MED WG.509/31, along with the Monitoring Guidelines related to Analytical Quality Assurance and Reporting Monitoring Data that will be provided in the Meeting documents UNEP/MED WG.509/32 to UNEP/MED WG.509/33. The Monitoring Guideline are composed of 98 specific Protocols prepared to support standardization and harmonization of the procedures for all the steps of analytical chain. Following on their acceptance by the Integrated Meetings of the Ecosystem Approach Correspondence Groups on Monitoring (1-3 December 2020), and the Meeting of the Ecosystem Approach Correspondence Group on Pollution Monitoring (26-28 April 2021), they will be submitted for approval of the Meeting of MED POL Focal Points.

68. These Monitoring Guidelines present coherent manuals to guide technical personnel of IMAP competent laboratories of the Contracting Parties for the implementation of the standardized and harmonized monitoring practices related to the analytical procedures of sampling, sample preservation and transportation, sample preparation and analysis, along with the quality assurance and reporting of monitoring data for IMAP Common Indicators 13,14, 17, 18 and 20.

69. The Monitoring Guidelines/Protocols build upon the knowledge and practices obtained over 40 years of MED POL monitoring implementation and recent publications, highlighting the current practices of the Contracting Parties' marine laboratories, as well as other relevant experiences (i.e. experiences of the Regional Seas Conventions and the EU). Therefore, a thorough analysis of presently available practices of UNEP/MAP, UNEP and IAEA, as well the HELCOM, OSPAR and European Commission Joint Research Centre was undertaken to assist an innovative approach for preparation of the IMAP Monitoring Guidelines/Protocols.

70. Monitoring Guideline/Protocols for Floating Microplastics was also prepared, as provided in the Meeting document UNEP/MED WG. 509/34. The document extracts from the most commonly applied methodologies for monitoring floating microplastics and presents the basic methodological elements for monitoring floating microplastics in the Mediterranean in line with IMAP requirements. This guideline aims to guide the technical personnel of the IMAP Pollution competent laboratories for implementation of the standardized and harmonized monitoring practices for IMAP Common Indicator 23.

## **2.5 Indicator-based midterm evaluation of NAPs**

71. COP19, agreed in Decision IG.22/8 to endorse the National Action Plans (NAPs) 2016-2025 as unique policy documents comprising legally binding programmes of measures and timetables required to achieve Good Environmental Status (GES) in line with the Regional Plans/LBS Protocol objectives in the framework of SAP-MED. COP19 urged the Contracting Parties to report on the implementation of the NAPs in the framework of Article 13 of the LBS Protocol. Moreover, it requested the Secretariat to undertake in 2020 an indicator-based midterm evaluation of the NAPs' implementation based on the existing reporting system and in close collaboration with the Contracting Parties.

72. MED POL Programme has developed the Midterm Evaluation Report of the NAPs' Implementation using data and information sources selected in line with the NAP/H2020 indicators further to their availability in various technical studies and reports. Subsequently, the Midterm Evaluation was reviewed and agreed during the Meeting on National Baseline Budget Methodologies, Assessments of new Regional Plans and Evaluation of National Action Plans under the LBS Protocol held on 22-23 April 2021.

## 2.6 Technical Guidelines

73. In concordance with PoW and budget endorsed by COP21, MED POL Programme developed three guiding documents namely on “Estimation techniques and applied methodologies for non-point sources release from agriculture” “Estimation techniques and applied methodologies for point source releases from aquaculture” and “Guideline on estimation techniques and applied methodologies for non-point sources release from catchment runoffs” aiming to complement the NBB/PRTR Methodology for 5th Cycle of NBB.

74. Regarding estimation techniques and applied methodologies for non-point sources release from agriculture, an overview on techniques and approaches of emissions and releases of pollutants to air, water, and soil is provided (where available) from specific non-point agricultural sources. These include (a) enteric fermentation; (b) manure management; (c) field burning of agricultural waste; and (d) application of fertilizers and of pesticides. Sources of pollutants are linked to pathways of their releases with NBB/PRTR processes, and for the first time, this document proposes methodologies and estimation techniques for pollutant releases from: (a) silage leachate as a non-point (diffuse) pollution source in line with the related NBB/PRTR sector; and (b) field burning and disposal of livestock mortalities (animal farming sector) as well as Biomass Burning (agricultural sector) as two separate processes to be considered instead of the single “burning of agricultural waste” process.

75. Regarding estimation techniques and applied methodologies for point sources release from aquaculture, the document expands the scope of existing NBB Guidelines by providing specific information on estimation of releases of Total Nitrogen, Total Phosphorus, Total Organic Carbon (BOD, or COD) and some heavy metals (Cu and Zn and their compounds) originating from aquaculture sector.

76. Finally, the document on estimation techniques and applied methodologies for non-point sources release from catchment runoffs expands the scope of existing NBB Guidelines by providing specific information on reporting of releases of nutrients, organic carbon and veterinary antibiotics and pharmaceuticals from catchment runoff by applying simple methods from “averaging” to much more complex estimation techniques such as “regression modelling” which require comprehensive data inputs and grid modelling.

77. The three guidelines were reviewed and agreed by the Meeting on Evaluation of Implementation of National Action Plans and Assessments, and Tools to Estimate Pollutants Loads from Diffuse Sources held on 22-23 April 2021.

78. In concurrence with its mandate, as well as with activities under the bilateral Cooperation Agreement signed on 9 October 2019, with the International Maritime Organization (IMO) MED POL Programme developed two documents titled “Compendium of Best Practices on Implementation of Dumping Protocol” and “Common methodologies and techniques for the assessment and monitoring of adverse impacts of dumping activities.” These two documents are complementary to each other; whereas the latter is intended to bring together all relevant available methodologies and techniques that can be used by the Contracting Parties for implementation of the Dumping Protocol with a particular focus on (i) monitoring of dredging operations from harbours, ports, navigation channels and infrastructure projects such as cables and pipelines, and (ii) monitoring of disposal sites of dredged material at sea.

79. These two documents were reviewed and accepted with number of recommendations during the Joint Meeting with IMO on Sharing the Best Practices for Implementation, Compliance and Enforcement related to Dumping Protocol remotely held on 2 March 2021.

**Annex I**

**Status of level of information provided in the Reports for the biennium 2018-2019 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**

*(as of 10<sup>th</sup> of May 2021)*

**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 at 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
Albania	N/A (Not submitted)							N/A (Not submitted)						N/A (Not submitted)					
Algeria	N/A (Not submitted)							N/A (Not submitted)						N/A (Not submitted)					
Bosnia and Herzegovina	+	-	-	-	-	+	-	+	-	+	+	+	-	+	-	-	-	N/A	N/A
Croatia	+	-	-	-	-	+	-	+	+	+	+	+	-	+	+	+	+	N/A	N/A
Cyprus	+	-	-	-	+	+	+	+	-	+	+	+	+	N/A (Not submitted)					
Egypt	N/A (Not submitted)							N/A (Not submitted)						N/A (Not submitted)					
EU	N/A (Report at Draft Stage)							N/A (Report at Draft Stage)						N/A (Not submitted)					
France	N/A (Report at Draft Stage)							N/A (Report at Draft Stage)						N/A (Not submitted)					
Greece	+	+	+	-	-	+	-	+	-	+	+	+	-	N/A (Not submitted)					
Israel	N/A (Report at Draft Stage)							N/A (Report at Draft Stage)						N/A (Not submitted)					
Italy	+	-	+	+	+	+	+	+	-	+	+	-	-	+	-/+	+	+	+/-	+
Lebanon	N/A (Report at Draft Stage)							N/A (Report at Draft Stage)						N/A (Report at Draft Stage)					
Libya	N/A (Not submitted)							N/A (Not submitted)						N/A (Not submitted)					
Malta	N/A (Report at Draft Stage)							N/A (Report at Draft Stage)						N/A (Report at Draft Stage)					
Monaco	N/A (Not submitted)							N/A (Report at Draft Stage)						N/A (Not submitted)					

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
Montenegro	N/A (Not submitted)							N/A (Report at Draft Stage)						+	-	-	+	-/+	+
Morocco	N/A (Report at Draft Stage)							N/A (Report at Draft Stage)						N/A (Report at Draft Stage)					
Slovenia	+	+/-	-	-	-	+	+	+	+	+	+	+	+	N/A (Not submitted)					
Spain	+	+	+	+	+	+	+	N/A (Report at Draft Stage)						+	+	-	-	N/A	+
Syria	N/A (Not submitted)							N/A (Not submitted)						N/A (Not submitted)					
Tunisia	N/A (Not submitted)							N/A (Not submitted)						N/A (Not submitted)					
Turkey	+	-	-	-	-	+	N/A	+	-	+	+	+	-	+	-	+/-	+	N/A	-

## **Annex II**

**Status of new data submission into IMAP Pilot Info System and MEDPOL Database regarding 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**



1. Tables 1 and 2 provide a detailed examination of the new available data for upgrade of the assessment criteria for contaminants sorted by matrix, country and sampling year, as provided in UNEP/MAP WG.509/12 and UNEP/MAP WG.509/inf 15. It can be seen that the IMAP and MEDPOL data included only TM and organic contaminants in sediment and biota (CI17). No new data were available for biomarkers (CI18).

2. Table 3 provides a summary of new available data for upgrade of the assessment criteria for DIN and TP reported both to IMAP Pilot Info System and MEDPOL Database, as provided in UNEP/MAP WG.509/13 and UNEP/MAP WG.509/inf 16.

**Table 1:** An overview of available new data from IMAP Pilot Info System. The numbers next to the years are the number of observations for each parameter, sorted by country and sampling year. The number of below detection limit (BDL) observations is given in parenthesis.

Trace metals	Species	Year	Cd	Hg	Pb
<b>Bivalve/mollusc</b>					
Lebanon	<i>Patella sp.</i>	2019	16 (0)	16 (0)	16 (0)
Morocco	<i>Callista chione</i>	2016	10 (0)	10 (0)	10 (0)
		2017	10 (0)	10 (0)	10 (0)
		2018	5 (0)	5 (0)	5 (0)
Slovenia	<i>M. galloprovincialis</i>	2018	3 (0)	3 (0)	3 (0)
		2019	3 (0)	3 (0)	3 (0)
<b>Fish</b>					
Croatia	<i>Conger conger</i>	2012	4 (4)	4 (0)	4 (0)
Lebanon	<i>Diplodus sargus</i>	2019	11 (0)	11 (0)	11 (0)
	<i>Euthynnus alletratus</i>	2019	15 (0)	15 (0)	15 (0)
	<i>Mullus barbatus</i>	2019	14 (0)	14 (0)	14 (0)
<b>Sediment</b>					
Cyprus		2013	2 (0)	2 (2)	2 (0)
		2014	4 (1)	4 (4)	4 (3)
		2015	3 (0)	3 (3)	3 (1)
		2016	2 (0)	2 (2)	2 (0)
		2017	7 (0)	7 (6)	7 (0)
		2018	4 (1)	4 (4)	4 (1)
Morocco		2016	11 (9)	0	11 (4)
		2017	11 (1)	11(11)	11 (7)
		2018	11 (0)	11(11)	11(1)
Slovenia		2019	1(1)	1(0)	1(0)

PAHs and Organochlorinated contaminants										
Bivalves/ mollusc	Species	Year	Total PAH	Total PCB	HCB *	CB10 1	CB13 8	CB15 3	CB1 80	CB52
Lebanon	<i>Patella sp</i>	2019	15 (0)	15 (8)						
Morocco	<i>C.chione</i>	2016			7 (0)	1 (0)	7 (0)	7 (0)	5 (0)	0
		2017			7(0)	0	2(0)	3 (0)	7(0)	0
		2018			5 (0)	5 (0)	6 (0)	5 (0)	6 (0)	1

PAHs and Organochlorinated contaminants										
<b>Bivalves/ mollusc</b>	Species	Year	Total PAH	Total PCB	HCB *	CB10 1	CB13 8	CB15 3	CB1 80	CB52
Slovenia	<i>M. galloprovincialis</i>	2019	3 (3)							
<b>Fish</b>					HCB *	Dieldrin	Aldrin	DDE(p,p')	DDT(p,p')	DDD(p,p')
Croatia	<i>C. conger</i>	2012			4 (3)	8 (2)	8 (8)	8 (0)	8 (0)	8 (0)
Lebanon	<i>D.sargus</i>	2019	3 (0)	3 (0)						
	<i>E. alletratus</i>	2019	10 (0)	13 (0)						
	<i>M. barbatus</i>	2019	6 (0)	3 (0)						
<b>Sediment</b>										
Lebanon		2019	19 (0)	19 (9)						
Slovenia		2019	1 (1)	1 (1)	1 (1)					

\* HCB- Hexachlorobenzene

**Table 2:** New data available in MEDPOL Database. The numbers next to the years are the number of observations for each parameter, sorted by country and sampling year. The number of below detection limit (BDL) observations is given in parenthesis.

	Species <sup>2</sup>	Year	Cd	Hg	Pb	Total PAHs	Hydrocarbons
<b>Bivalves</b>							
Israel	<i>MC</i>	2017	2 (0)	2 (0)	0		
Montenegro	<i>MG</i>	2018	8	8	8	9 (5)	
Slovenia	<i>MG</i>	2017	3 (0)	3 (0)	3 (0)		
Tunisia	<i>ML</i>	2014	0	3 (0)	0		
	<i>RD</i>	2014	0	11(0)	0		
<b>Fish</b>							
Israel	<i>DS</i>	2017	13(12)	13(0)	0		
	<i>LM</i>	2017	28(27)	28 (0)	0		

<sup>2</sup>MC – *M. corralina*, MG – *M. galloprovincialis*, RD - *R.uditapes*, , DS - *D. sargus*, LM - *L. mormyrus*, SR- *S. rivulatus*, SRB-*S. rubrum*.

	Species <sup>2</sup>	Year	Cd	Hg	Pb	Total PAHs	Hydrocarbons
	<i>SR</i>	2017	11(12)	11 (0)	0		
	<i>SRB</i>	2017	10(10)	10 (0)	0		
	<i>DS</i>	2018	9 (4)	9 (0)	0		
	<i>SRB</i>	2018	10 (10)	10 (0)	0		
<b>SEDIMENT</b>							
Israel		2017	14 (0)	14 (0)	14(0)		
Montenegro		2018	6 (0)	6 (0)	6 (0)	5 (0)	5 (5)
Slovenia		2013				7 (0)	
		2014				6 (0)	
		2015				6 (0)	
		2016				7* (0)	
		2018				1* (0)	
Tunisia		2014	9 (9)	9 (0)	9 (9)		6 (0)

\* data for 16 individual PAHs.

**Table 3:** Datasets from IMAP Pilot Info System and MEDPOL Database available for calculation of the assessment criteria for DIN and TP. The datasets used in the 2017 and 2019 assessments are given for comparison.

Country	Data reported to MEDPOL Database	Data reported to IMAP Pilot Info system*	
		Validated	Not validated
Albania	2005-2006	-	
Algeria	2012	-	
Bosnia and Hercegovina	2006-2008	2013-2020	
Croatia	2009, 2011-2014	-	
Cyprus	1999-2015	-	2016-2019
Egypt	2009-2010; 2012;2015	-	
France	2009-2012;2013; 2016		
Greece	1999-2000, 2004-2006	-	
Israel	2001-2013; 2015	2018-2019	
Italy	-	-	
Libya	-	-	

Malta	-	-	
Monaco	-	-	
Montenegro	2008-2012; 2014-2015; 2016-2017	-	2018-2019
Morocco	2006-2008; 2013-2015	-	
Syria	2007	-	
Slovenia	1999-2013, 2015-2016	2017-2019	
Spain	-	2019	
Tunisia	2002-2014	-	
Turkey	2005-2009, 2011, 2013-2015	-	

*\*Both validated and not validated data have been used for assessing sources for calculation of the assessment criteria for DIN and TP, given temporary not validated status may be assigned to data due to certain technical issues in IMAP Info System*